

UNIVERSITAS SEMARANG Fakultas Teknologi Informasi dan Komunikasi teknik Informatika

Mobile Application

Modul Praktikum Mahasiswa

Oleh: Alauddin Maulana Hirzan, S. Kom., M. Kom NIDN. 0607069401

Daftar Isi

Pe	endał	nuluan	2
	0.1	Mengenal Android	2
	0.2	Mengenal Firebase dan Realtime Database	2
	0.3	Mengenal JSON-Tree	3
	0.4	Mengenal Flutter Framework	4
Pe	ersiap	oan Praktikum	5
	0.5	Perangkat Keras	5
	0.6	Perangkat Lunak	5
1	Pra	ktikum 1	6
	1.1	Konfigurasi Firebase Realtime DB dan Flutter IDE	6
	1.2	Tutorial	6
2	Pra	ktikum 2	12
	2.1	Antarmuka Login Flutter	12
	2.2	Tutorial	12
3	Pra	ktikum 3	22
	3.1	Halaman Registrasi dan Navigasi Page	22
	3.2	Tutorial	22
4	Pra	ktikum 4	32
	4.1	Integrasi Firebase	32
	4.2	Tutorial	32
5	Pra	ktikum 5	39
	5.1	Operasi Insert Data Flutter	39
	5.2	Tutorial	39
6	Pra	ktikum 6	49
	6.1	Operasi Read Data Flutter	49
	6.2	Tutorial	49
7	Pra	ktikum 7	64
	7.1	Operasi Update Data	64
	7.2	Tutorial	64

8	Pra	ktikum 8	7 8
	8.1	Operasi Delete Data	78
	8.2	Tutorial	78
9	Pra	ktikum 9	85
	9.1	Operasi File dengan Google Storage	85
	9.2	Tutorial	85

Daftar Gambar

1	Perangkat Android	2
2	Realtime Database	3
3	Contoh JSON Tree	3
4	Flutter	4

Pendahuluan

0.1 Mengenal Android

Sistem operasi Android adalah sistem operasi seluler untuk digunakan terutama untuk perangkat layar sentuh, ponsel, dan tablet. Desainnya memungkinkan pengguna memanipulasi perangkat seluler secara intuitif, dengan gerakan jari yang mencerminkan gerakan umum, seperti mencubit, menggesek, dan mengetuk.



Gambar 1: Perangkat Android

0.2 Mengenal Firebase dan Realtime Database

Firebase adalah platform yang dikembangkan oleh Google untuk membuat aplikasi seluler dan web. Salah satunya produk yang sering digunakan di Firebase adalah Realtime Database. Firebase Realtime Database adalah database yang dihosting di cloud. Data disimpan sebagai JSON dan disinkronkan secara realtime ke setiap klien yang terhubung.



Gambar 2: Realtime Database

0.3 Mengenal JSON-Tree

JSON (JavaScript Object Notation) adalah format pertukaran data yang ringan. Mudah bagi manusia untuk membaca dan menulis. Sangat mudah bagi mesin untuk menguraikan dan menghasilkan. Ini didasarkan pada subset dari Standar Bahasa Pemrograman JavaScript ECMA-262 Edisi ke-3 - Desember 1999. JSON adalah format teks yang sepenuhnya bebas bahasa tetapi menggunakan konvensi yang akrab bagi pemrogram keluarga bahasa C, termasuk C, C++, C#, Java, JavaScript, Perl, Python, dan banyak lainnya. Properti ini menjadikan JSON sebagai bahasa pertukaran data yang ideal.

JSON dibangun di atas dua struktur:

- Kumpulan pasangan nama/nilai. Dalam berbagai bahasa, ini diwujudkan sebagai objek, catatan, struct, kamus, tabel hash, daftar kunci, atau array asosiatif.
- Daftar nilai yang diurutkan. Dalam kebanyakan bahasa, ini diwujudkan sebagai array, vektor, daftar, atau urutan.

Ini adalah struktur data universal. Hampir semua bahasa pemrograman modern mendukungnya dalam satu atau lain bentuk. Masuk akal bahwa format data yang dapat dipertukarkan dengan bahasa pemrograman juga didasarkan pada struktur ini.

esponse Body Select Body
{
"results": [
{
"bioguide_id": "P000606",
"birthday": "1948-08-15",
"chamber": "house",
<pre>"contact_form": "https://pittenger.house.gov/contact/email-me",</pre>
"crp_id": "N00034416",
"district": 9,
"facebook_id": "376142742468386",
"fax": "202-225-3389",

Gambar 3: Contoh JSON Tree

0.4 Mengenal Flutter Framework

Flutter adalah kerangka kerja sumber terbuka oleh Google untuk membangun aplikasi multi-platform yang indah, dikompilasi secara asli, dari satu basis kode. Flutter mengubah proses pengembangan aplikasi. Buat, uji, dan terapkan aplikasi seluler, web, desktop, dan tersemat yang cantik dari satu basis kode.



Gambar 4: Flutter

Persiapan Praktikum

Agar praktikum dapat berjalan dengan lancar, mahasiswa diwajibkan memenuhi persyaratan berikut baik dalam bentuk perangkat keras maupun lunak:

0.5 Perangkat Keras

- Prosesor dengan 4 inti
- RAM minimal 4GB, rekomendasi 8GB
- HDD 10GB

0.6 Perangkat Lunak

Perangkat lunak berikut ini wajib diinstall oleh mahasiswa demi lancarnya praktikum:

- Browser
- FlutLab Desktop (opsional)

Bab 1

Praktikum 1

1.1 Konfigurasi Firebase Realtime DB dan Flutter IDE

Di bagian ini mahasiswa diajarkan bagaimana membuat projek Firebase dengan Realtime Database. Selain itu mahasiswa juga diperkenalkan dengan antarmuka Flutlab untuk membuat aplikasi Mobile multi platform. Mahasiswa diwajibkan untuk menyelesaikan **Persiapan Praktikum** sebelum masuk ke tahapan ini.

1.2 Tutorial

1. Buka firebase.google.com, login dengan Akun Google Pribadi. Jika sudah, klik Get Started > Create Project > Beri Nama Projek Praktikum-MobileApp > Klik Continue > Matikan Analytic > Create Project > Tunggu Proses Selesai.





2. Untuk membuat Realtime Database, klik Menu Build yang ada di samping kiri>piih Realtime Database>klik Create Database

	Realtime D Store and sync data	atabase in real time	
★ Is Realtime Database right for you? Compare Databases []		 Is Realtime Database right for you? 	Compare Databases 2

3. Pilih lokasi database (Singapore), klik Next

Set up database			×
1 Database options 2 Security rules			
Your location setting is where your Realtime Database data w Realtime Database location	vill be stored.		
Singapore (asia-southeast1)	•		
		Cancel	Next

4. Ketika ditanya Security Rules, pilih Locked Mode / Private atau Test Mode / Public Temporary. Pilih Test Mode.

Set up database Database options 2 Securi	X rules	<
Once you have defined your data structure you Learn more ? Start in locked mode Your data is private by default. Client read/write access will only be granted as specified by your security rules. Start in test mode Your data is open by default to enable quick setup. However, you must update your security rules within 30 days to enable long-term client read/write access.	<pre>ou will have to write rules to secure your data. { "rules": { ".read": "now < 16350948000000", // 2021-10-25 ".write": "now < 1635094800000", // 2021-10-25 } } ① The default security rules for test mode allow anyone with your database reference to view, edit and delete all data in your database for the next 30 days Cancel Enable</pre>	

5. Tunggu hingga database muncul dan siap dipakai.

붣 Firebase	Praktikum-MobileApp 👻	Go to docs		۲
🔒 Project Overview 🗱	Realtime Database			0
Build	Data Rules Backups Usage Image: Configure App Check Protect your Realtime Database resources from abuse, such as billing fraud or phishing Configure App Check			×
 Firestore Database Realtime Database Storage 	C> https://praktikum-mobileapp.default+tdb.asia-southeast1.firebasedatabase.app/	Θ	:	
S Hosting (··) Functions ☆ Machine Learning	praktikum-mobileapp-default-rtdb: null			
Release & Monitor Crachildring: Parformance Test La Extensions				
Spark Upgrade Free \$0/month				
<				

- 6. Setelah Database sudah siap, berikutnya adalah mengonfigurasikan **Rules** yang sudah dibuat oleh Firebase. Hal ini memastikan database bisa diakses kapanpun
- 7. Klik tab $\mathbf{Rules} \to \mathbf{Edit} \ \mathbf{rules} \to \mathbf{Ubah} \ \mathbf{data} \ \mathbf{berikut}$:
 - "now < xxxxxxx
xx
 menjadi ${\bf true}$

붣 Firebase	Praktikum-MobileApp 👻	P 🔺 🎨
🔒 Project Overview 🛛 🛱	Realtime Database	0
Project shortcuts Realtime Database Product categories	Data Rules Backups Usage & Extensions 🚥	
Build Y		Rules playground
Analytics	1 · { 2 · · · · · · · · · · · · · · · · · · ·	
Engage v	3 [.read::true, // 2023-4-19 .write":true, // 2023-4-19 5]	
All products		
Spark Upgrade No-cost \$0/month		
<		

8. Klik **Publish** untuk menerapkan perubahan.

 Berikutnya buka web https://flutlab.io/workspace. Buatlah akun dengan E-Mail Pribadi, dan buka kembali link tersebut hingga terlihat seperti gambar di bawah:



10. Mahasiswa akan melihat **Project Default** berisikan **Hello World** dari Flutlab. Klik projek tersebut hingga muncul tampilan seperti berikut:

_			-								
7		œ G	◎ ≡		Hello W	orid 🧪			\$ 2	3+ Q	
Δ	Explorer	main.dart									
ش ئ	 ✓ Hello World > android > lois ✓ lib © main dart > test > web ■ metadata ■ analysis_options yaml ■ pubspec yaml ○ README md 	1 i 2 4 5 c 7 8 9 10 11 12	<pre>mport 'packag oid main() => lass MyApp ex const MyApp(// This widg @override Widget build return Mat // Appli title: '</pre>	e:flutter/materi runApp(<u>MvApp()</u>) tends StatelessW {super.key}); et is the root o (BuildContext co erialApp(cation name Flutter Hello Wo	al.dart' ; idget { f your a ntext) { rld',						
Ŕ	 ✓ Dependencies > async (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1) > clock (1.1.1) > collection (1.16.0) 	13 Outputs ₽ ← Projec	Analyzer Analyzer	Cation theme dat Pub Commands successfully loaded.	a, you c Tests	an set th	e colors for the applica				:
亞								Flutter Docum	nentatio	in ≈	P
14								Shortcuts	Flutter 3.	3 🗸 🔢	3

- 11. Ada beberapa bagian yang harus dipahami oleh mahasiswa:
 - (a) Struktur Folder
 - (b) Ketergantungan Aplikasi
 - (c) Navigasi Item Aplikasi
 - (d) Build dan Play Aplikasi
 - (e) Analyzer Kebenaran Kode

7	Finad 💽 🗲 🗌 🖨	🛆 G 💿 🚍 Hello World 🖌 🔗	er 🗘 🔥
	Explorer	main.dart x	
ی پ پ	 → Hello World → android → Isis → Isis → Isis → Isis → Isis → Nete → Net → Net	<pre>import 'package:flutter/material.dart'; void main() -> runApp(MyApp()); class MyApp extends StatelessWidget const MyApp((super.key)); // This widget is the root of your application.</pre>	
\$ *	 ✓ Dependencies > sayne (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1) > clock (1.1.1) > collection (1.16.0) 	Outputs Analyzer Pub Commands Tests Tools Git History ☞ ♥ Project "Hello World" was successfully loaded.	
- K			
亞		Flutter Documenta	ation 🛠 📃
12	No branch - Analyzer Ready	Shortcuts Flutte	er 3.3 🗸 🛛 💿 🖕

- 12. Untuk menguji coba aplikasi dari projek saat ini bisa dalam beberapa mode:
 - Web (Rekomendasi untuk preview)
 - Android APK (1 kali per hari, hanya untuk final)
 - IPhone IPS (1 kali per hari, hanya untuk final)
- 13. Arahkan Mouse ke Tombol **Play** \rightarrow Pilih **Web**. Jika sudah dalam mode **Web**. Klik tombol **Play** dan tunggu proses building hingga emulator web muncul dan aplikasi ditampilkan.

	web-emulator	6 4	G <mark>⊙</mark> ≡		Hello World 🥒				응 음* ¢	1 🥢
Explorer	android-x86	nain.dart x 1 imp	oort 'package:							
	android-x64 android-arm	2 3 voi 4 •		unApp(<u>MyApp(</u>						
 lib main.da test web metadat analysis_ pubspec. README 	rt android-arm64 android-all la ios-debug .opt web-release .yan Emd	5 cla 6 c 7 / 8 @ 9 W 10 11 11 12	<pre>ss MyApp extent const MyApp({so // This widget Noverride Vidget build(Bu return Mater: // Applica title: 'Fl</pre>	nds Stateless uper.key}); is the root uildContext of ialApp(ition name uutter Hello V	<pre>sWidget { of your applica context) { World',</pre>					
v Dependencie		13 Outputs	// Applica Analvzer	tion theme da	ata, you can set Tests Tools	Git History				
> async (2.9.0) > boolean_sele > characters (* > clock (1.1.1) > collection (1) ector (2.1.0) 1.2.1) 1.16.0)	₽ ← Project "I						Flutter Do	ocumentation 🛠	
A Flutter	Outline							Chartoute	Element 3 v	6
	Analyzer Ready		-							
FlutLab C) web - 4] 📄 🕜	G © ≡		Hello World 🥜		Build started by Ala	uddin_Maulana_F	lirzan. Target: web	×
FlutLab (Explorer V Hello World) web - 4	main.dart x	o G ⓒ ≡ ort 'package:	flutter/mater	Hello World 🌶	0	Build started by Ala	uddin_Maulana_H	Jirzan. Target: web	×
FlutLab (Explorer > Hello World > android > hos > lib © main.da	S web	main.dart.x 1 imp 2 3 voi 4 cla c cla	o G ⓒ ≡ mert 'package: d main() => rr S WyApp exter com = 0 vopp(5s	flutter/mater unApp(MvApp) under Sternwo	Helo Word 🖌	0	Build started by Ala	uddin_Maulana_H	tirzan, Target: web	×
FlutLab () Explorer V Hello World > ios V lib () main.da > test > web () metadat	S web - 4	☐ ☐ @ main.dart x: 1 Imp 2 3 Voi 4 € 5 cla 5 cla 6 7 7 7 8 0 9 V	G ⓒ ≡ aert 'package: .d main() ⇒ rr <u>Inst MyApp(oste</u> .mst MyApp(oste .vveride .vveride .vveride .vdet huild/B	flutter/mater unApp(NvApp) Ids_st_wo oper.k us_the_root us_the_root	Helo Wold 💉 Tal Jart () RKING ON IT	O Norse d	Build started by Ala	uddin_Maulana_F	lirzan. Target: web	×
FlutLab (Explorer - Helto Varid - Sandrod - Sino - Helto Varid - Sandrod - Sino - Walt - Manana - Sandrod - Sa	S web	Imain dart x 1 2 3 4 5 6 7 9 9 11 12	G ⓒ ≡ mrt 'package: d main() ⇒ ri od WApp exter orst WyApp(exter orst WyApp(exter distributions) file return Mater // App) B title: 'file	flutter/mater mApp(WyApp) ande_st wo oper,k te the cost of the cos	Heta Wadd Tal. dart () BKING ON IT Generation () Generation () Generation () Generation () BKING ON IT Generation () Generation () Generatio	d rogress	Build started by Ala	uddin, Maufana, J-	irzan. Target: web	
FlutLab C Explore Fields World Sics Vite Marinda Sics Marinda Sics Marinda Sics Marinda Sics Marinda Sics Marinda Sics Marinda Sics Marinda Sics Marinda Marinda Sics Marinda	S web	The second secon	C O ≡ ort 'package: d main() ⇒ ort met WyApp(Gr This addget right ballde right ballde inter the inter	flatter /aate wo (%) (%) (%) (%) (%) (%) (%) (%) (%) (%)	Henta Woold Tall dart?; BKING ON IT The Second Second Second Recent Control of the Second Second Recent Second Seco	d for meditation. What	Build started by Ala	uddin, Maulana J- Na 15 2	dirzan. Targeti web	
FlutLab of FlutLab of Explorer → Iele Word > and of > ins → iele @ man da > ins > i	Web - Web -	main dart × 1 197 2 vo1 4 vo 5 vo 7 7 7 6 v 7 7 7 8 vo 10	ant "package: ant "package: d main() - rt I ByApp action of the standard of the standard of th	Factor 4 and a second s	Hello World 24 All L dart 1: RKING ON IT RKING ON IT REGISTER Tour turn to built d. You have a minute d. You have a minute Mid Y (Hide Loadin	of d for meditation. What g	Suid started by Ala	uddin, Maufana J-	lizan Tarpet web	
FlutLab (Epicer - Hels Word - Sandrad -	Web - Web -	Tradin dari u Tradin dari u 1 lur 3 voi 5 cl 7 lur 8 li back and 1 2 v e 8 back and 1	G G G G art ("package: d main()p > or (or 11. Bydp action main()p > or (or 11. Bydp action (or (or (or (or (or (or (or (or (or (or	Fact of a second	Hello World 2 Tall dart 1 RKING ON IT RKING ON IT Court turn to built rebard to Stall dart Hide Loadin	d fogress for meditation. What g	Build started by Ala	uddin, Maufana J	tizzn. Tarpet web	

¥	FlutLab 💽 web 🗸 🥠	□ 🗈 🗠 G 💿 ≡	Hello World 🥒		😞 2+ ¢ 人
0 %	Explorer V Hello World S android I to S I to S P	<pre>main durt x import 'package:flutt' void main() => runApp class WyApp extends 2 cost WyApp((super.) class WyApp (super.) cost WyApp(st is t) everride widget build(BuildC i return MaterialAp) // Application + itile: 'Flutter // Application</pre>	Flutter Demo Home Page	⊕ ↓ ↓ ↓	
Ŕ	Dependencies > async (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1) > clack (1.1.1) > collection (1.16.0)	Outputs Analyzer Pub Con Installed new service worker. Flutter Web Bootstrap: Auto	ile	d Run Git History	: mentation 🖈 📮
- P 1				Shortcuts	Flutter 3.3 🗸 🔢 💿 😐

14. Scroll turun Kode dan temukan tulisan 'Hello, World!' dan ubah menjadi ${\bf NIM}$ - Nama

Ŧ	FlutLab 💽 web 🗸 🥠	084	G 🧿 🗄	≡	Hello \	Vorld 🥖				\$ \$	\$+ ¢	
۵	Explorer	main.dart ×		Ann Dan (Flutter Demo Home Page	1		
ھ ھ	> android > ios > ib @ main dart > test > web @ metadata @ metadata @ pubspec yaml @ README md		appBar: // The // The title:), // Ap body: <u>Ce</u> child: 'G.2), //), // Ce); // Scaf	AppBar(title text wh. Text(title), pBar nter(Text() 11,10.0001 - I Text nter fold				ction ba	Hels, World			
œ ¢	 > Dependencies > async (29.0) > boolean_selector (21.0) > characters (1.2.1) > clock (1.1.1) > collection (1.16.0) > Flutter Outline 	Outputs Installed new Flutter Web f	Analyzer v service worker. 300tstrap: Auto	Pub Commands	Tests	Tools	Build	Run		Intatio	on 🛠	:
P 1	Io branch 🗸 🛛 Analyzer Ready								Shortcuts	Flutter 3	3 ∽ [0

15. Klik **Hot Reload** (Simbol Petir disebelah tombol **Play**) untuk melakukan **Refresh**. Hanya bisa digunakan ketika tombol **Play** sudah di klik satu (1) kali.

FlutLab 💿 web 🗸	4	٥	٦	G	٢	≡	Hello World 🥒 😔	å,	¢	

16. Secara otomatis perubahan akan ditampilkan tanpa perlu **Building Ulang**

Ŧ	FlutLab 💽 web 🗸 🥠 🥠	084	G 🧿 Ξ	E	Hello V	Vorld 🥒			\$	å⁺	ф 🕢	
	Explorer > Hello World > android > lois > lois © the © main dart M > test > web = metadata ■ analysisoptions yaml ■ pubspecymin © README.md		appBar: A // The title:), // App body: Cen child: 'G.21), // T), // Cen); // Scaff	ppBar(title text whin Text(title), Bar ter(Text(1.10.0001 - Ill ext ter old				Flutter Demin Home Page				-
		Outputs = 2 module(s) v = Flutter Web B	Analyzer vere hot-reloadeo ootstrap: Auto	Pub Commands J.	Tests	Tools	Build Ru	n		ation	•	29+
	lo branch M. Analuzar Roady							Shortoute	Elute	or 2 2		

17. Screenshot hasil dari praktikum ini dan kirimkan ke E-Learning

Bab 2

Praktikum 2

2.1 Antarmuka Login Flutter

Di bagian ini mahasiswa diperkenalkan dengan pemrograman DART untuk membuat tampilan login melalui IDE Flutter. Mahasiswa diwajibkan untuk menyelesaikan pertemuan sebelumnya agar praktikum ini berjalan dengan baik.

2.2 Tutorial

1. Buka web https://flutlab.io/workspace, hapus projek sebelumnya karena limitasi dari Flutlab.



- 2. Lalu buatlah projek dengan konfigurasi lalu klik Create:
 - Codebase : Code Base #2 : Stateful Click Counter
 - Project Name : Sistem Informasi Mahasiswa
 - Package : id.ac.usm (Domain USM)

7 Workspace	My Projects Shared with me Deleted + Project A	
\Lambda Alauddin Maulana H	٥	
	Create project	
	Choose codebase:	
Projects 0 / 20 Sandboxes 0 / 2 Storage 0.0 MB / 2.0 GB	Project name Sitem Informasi Mahasiswa Padage id.ac.usm () CREATE /	
	â	
Account Status - Educator		

3. Tunggu Flutlab membuat projek awal. Lalu klik projek tersebut



4. Di kode ada bagian-bagian yang perlu dirubah. Ubahlah judul aplikasi dengan mengganti kode berikut (Sebelum \rightarrow Sesudah):

static	const	String	_title = 'Flutter	Stateful	Clicker Counter';
			Potongan Kode	(Sesudah)	
static	const	String	_title = 'Sistem	Informasi	Mahasiswa';

Ŧ	FlutLab 💽 🗲 🔲 🗟	& G ⊙ ≡	Sistem Informasi Mahasiswa 🥒	🛇 ድ ር 🚫
D Q	Explorer Sistem Informasi Mahasiswa > android	<pre>main.dart M x 1 import 'packa 2 3 void main() =</pre>	ge:flutter/material.dart'; > runApp(MvApp());	
\$	> los > lib > test > veeb ■ metadata ■ pubyec_yaml ⊙ README.md	4 5 6 7 7 7 8 7 7 8 7 7 8 7 9 8 9 9 9 9 9 9 9 9 9 9 9 9 9	<pre>xtends StatelesSWidget { { (cuper.hey); t</pre>	
Ŕ	 > Dependencies > async (2, 9, 0) > boolean_selector (2, 1, 0) > characters (1, 2, 1) > clock (1, 1, 1) > collection (1, 16, 0) 	Outputs Analyzer	Pub Commands Tests Tools Git History	:
산 (11)				Flutter Documentation Flutter 3.3 Flutter

5. Berikutnya adalah mengubah tampilan **Judul App** yang ditampilkan oleh aplikasi Potongan Kode (Sebelum)



- 6. Berikutnya adalah mengosongkan widget-widget yang ada di tengah aplikasi, cukup menghapus kode yang berada di dalam **children: <Widget>[]**(Bisa dilihat via **Flutter Outline**)
- 7. Hapus bagian yang ditandai di gambar berikut

7		🗠 G 🧿	Sistem Informasi Mahasiswa 🧪	😞 ቆ ር 🔥
0 2 2 8	Explorer Sitem Informasi Mahasiowa android lois lois lois test test web metadata analysis.cptions yamil analysis.cptions yamil G README.md 	main.dart M × 72 73 74 75 76 77 78 80 81 82 83 84	<pre>mainAcisAlignment: mainAcisAlignment.center, children: -Widget>[</pre>	
Ŕ	 > Dependencies > async (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1) > clock (1.1.1) > collection (1.16.0) 	85 86 87 88 89 90 } Outputs	all configures and control of the co	
亞		😑 👉 Project "Sist	Informasi Mahasiswa" was successfully loaded.	mentation 🛠 🗾
14	lo branch 🗸 🛛 Analyzer Ready		Shortcuts	Flutter 3.3 🗸 🛛 💿 🔎

8. Jika sudah dihapus akan terlihat seperti berikut (children: <Widget>[] sudah tidak memiliki widget apapun):

Ŧ	FlutLab 🕑 🗲 🗌 🖨	🕁 G 🧿	🚍 Sistem Informasi Mahasiswa 🖌	🛇 ቆ ር 🔨
n	Explorer			
0			title: <u>Text('Sistem Informasi Mahasiswa')</u> ,	
_g2 [∎]			body: Center	
•	🔄 main.dart 🛛 M			
6 3			child: Column(
	> web		mainAxisAlignment: MainAxisAlignment.center,	
	📄 .metadata		children: <widget>[</widget>	
	analysis_options.yaml			
	pubspec.yaml			
	README.md			
	> boolean_selector (2.1.0)			
	> characters (1.2.1)			
R	> clock (1.1.1)			
		Outputs	Analyzer Pub Commands Tests Tools Git History	
츈		च 👉 Project "Sist	em Informasi Mahasiswa" was successfully loaded.	mentation 🔦 🖻
121			Shortcuts	Flutter 3.3 - 💿 😐

- 9. Sebelum mulai memasukkan kode tampilan aplikasi, ada beberapa bagian kode yang dirubah (Abaikan Error sampai kode selesai diubah):
 - Ubah home: MyHomePage() menjadi home: LoginPage() (Baris 16)
 - Ubah class MyHomePage menjadi class LoginPage (Baris 21)
 - Ubah const MyHomePage menjadi const LoginPage (Baris 22)
 - Ubah __MyHomePageState createState() => __MyHomePageState(); menjadi __LoginPageState createState() => __LoginPageState(); (Baris 28)
 - Ubah class __MyHomePageState extends State<MyHomePage> menjadi class __LoginPageState extends State<LoginPage> (Baris 31)

Ŧ	FlutLab 💽 🗲 🔲 🗟	∆ G 🧿 ≡	Sistem	Informasi Mahasiswa 🥒	⊗ ද	• ф 🔥
n	Explorer					
0 ۲ 8	Sistem Informasi Mahasiswa > android > iois vib main diart M test metadata metadata motadasta pubspecyeni O README.md	8 // This 9 @overrid 10 Widget b 11 return 12 titl 13 them 14 pr 15 N, / 16 home 17 18 18 > 20 >	widget is the root of your a did(BuildContext context) - MaterialApp(e: Thete, e: Thete, marySmatch: @Colors.blue. / thesestase / these for the state / the s			
	 > Dependencies > async (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1) > cloak (1.1.1) > collection (1.16.0) 	Outputs Analyze	r Tools Pub Commands rmasi Mahasiswa" was successfully loader	Tests Git History d.		:
					Flutter Documentation	1 A 📑
					Shortcuts Flutter 3.3	× 0 •

10. Hapus variabel serta fungsi yang ada di class $_LoginPageState$

F FlutLab 💽 🤞 📋 🛛	@ G 🧿 ≡	Sistem Informasi Mahasiswa 🥒	🛇 완 수 🔨
Explorer			
 Sistem Informasi Mahasiswa 	31 class _LoginPageSta	ate extends State <loginpage> {</loginpage>	
> android > os > vis > lib main dart > vets > vets > metadata analysis, options yaml Bitospec yaml O README md	32 int <u>counter</u> = 0; 33 void <u>incrementCc</u> 35 setState() { 36 // This call 37 // Changed in 38 // so that th 39 // _counter # 40 // called aga 41 <u>counter</u> +: 42 });		Beneficial and a second
✓ Dependencies > async (2.9.0)			
	Outputs Analyzer Tool	s Pub Commands Tests Git History	
	🚍 🗲 Project "Sistern Informasi Mahasi	iswa" was successfully loaded.	er Degumentation 🎓 📑
③			
No branch 🗸 🛛 Analyzer Ready		Shorter	uts Flutter 3.3 🗸 💿 🖣

11. Kode siap untuk ditambahkan widget-widget baru. Masukkan kode berikut di dalam **children: <Widget>** yang sudah dikosongkan sebelumnya. Pastikan mema-sukkan kode di dalam tag []:

```
Padding(

padding: const EdgeInsets.only(top: 60.0),

child: Center(

child: Container(

width: 200,

height: 150,

child: Image.asset("images/logo-ftik.png")))),
```



12. Kemudian tambahkan kode berikut masih di dalam tag [] tetapi di bawah kode sebelumnya. Kode ini digunakan untuk input NIM mahasiswa
Potongan Kode

```
Padding(
   padding: EdgeInsets.symmetric(horizontal: 15),
   child: TextField(
      decoration: InputDecoration(
      border: OutlineInputBorder(),
      labelText: "NIM",
      hintText: "Masukkan NIM Anda"))),
```



13. Berikutnya menambahkan kode input untuk password di bawah kode sebelumnya





14. Setelah field input selesai, berikutnya tambahkan tombol untuk Login Potongan Kode

```
Container(
    height: 50,
    width: 200,
    decoration: BoxDecoration(
        color: Colors.blue,
        borderRadius: BorderRadius.circular(15)),
    child: TextButton(
        onPressed: () {
            //TODO Firebase Login
        },
        child: Text(
        "Login",
        style: TextStyle(color: Colors.white, fontSize: 25),
    ))),
```

Ŧ	FlutLab 💽 web 🗸 🧳	0 0 0 0	≡ Siste	m Informasi Mahasiswa 🥖	,	\$ 2	ъ ф 🚺
n	Explorer						
D L L B B B B B B B B B B B B B B B B B	Varen Informasi Mahasiswa Ardroid Sos Vib Mana dari Ved Mana dari Ved mana dari metadata analysa, options yami metadata analysa, options yami O README mal		hintText: "M height: 50, width: 200, ecoration: BoxDecor. color: @Colors. borderRadius: Bo child: TextButton(onPressed: () { //IDD0_Liebba. b, child: TextSi colid: <u>TextSi</u> colid: <u>TextSi</u> ? @RdgetC1 Column	isukkan Password Ar ation(olue, derRadius.circular <u>tiopin</u> Le(color: ■Colors	nda"))), // input Deceration ((15)), // HoxDecoration white, fontSize: 25), almet		
	Dependencies async (2.9.0) boolean_selector (2.1.0)						
		Outputs Analyzer	Tools Pub Commands	Tests Build	Git History		
	> clock (1.1.1) > collection (1.16.0)						
R							
ŵ					FIL	itter Documentatio	on 🖈 🗾
14						touts Flutter 3	

15. Terakhir adalah menambahkan kode untuk Register dengan widget jenis **TextBut**ton



16. Cek pastikan kode tidak ada yang error. Jika ada perbaiki kode tersebut. Jika tidak ada error. Klik **Play (mode Web)** untuk melihat hasil saat ini

Flutter Outli

¥	FlutLab 💽 🤌 🔲	B 🕸 G	⊙ ≡	Sistem Inform	nasi Mahasiswa 🥒		&+ ¢	
0 2 8	Sustem Informasi Mahasiawa Indayasi, optiona yami pudopeo yami O README md			Extern Informati Mahashwa	C C C C C C C C C C C C C C		Во	
Ŕ	 Dependencies async (2.9.0) boolean_selector (2.1.0) characters (1.2.1) clock (1.1.1) colock (1.1.20) 	80 81 Outputs ● Image p ● Image k	Analyzer ovider: AssetImag y: AssetBundleIm	Contain Centers Took Daftar Alun Mahasiswa ge(bundle ageKey(b	Build Run Git Hist : "images/logo-ftik.png",	pry		:
<u>ٿ</u>	Flutter Outline					Flutter Document	ation 🕿	99+
4						Shortcuts Flutt		

- 17. Tetapi banyak error yang ada di aplikasi tersebut seperti:
 - Gambar tidak ada
 - Tampilan rusak ketika dirotasi landscape



18. Untuk menambahkan gambar cukup dengan cara mudah. Buat Folder Baru di Projek Sistem Informasi Mahasiswa dengan nama images



- 19. Lalu unduh gambar dan rename ke logo-ftik.png. Unduh di
 - https://transit.ftik.usm.ac.id/uploads/assets/img/ftik-usm.png
- 20. Unggah file yang sudah di-rename ke folder \mathbf{images} tersebut



21. Berikutnya adalah mengkonfigurasi **pubspec.yml** agar bisa membaca gambar, **Uncomment assets** dan tambahkan - **images**. Lihat Gambar di bawah:

Ŧ	FlutLab 💽 🤸 🔲 🗟	œG	⊚ ≡		Sister	n Informasi M	ahasiswa 🧪		\$	&+ ¢	
n	Explorer		M × pubspec.								
	Sistem Informasi Mahasiswa Sistem Informasi Atahasiswa Sistem Informasi Atahasiswa		<pre># the mater uses-materi # To add as assets: - images/ # - images/ # - images/ # - images/ # An image # https://d # For detai # https://d</pre>								
Γ		Outputs	Analyzer	Tools	Pub Commands	Tests	Build	Git History			
Ŕ	> characters (1.2.1) > clock (1.1.1) > collection (1.16.0)										
亞								Flutter	Document	ation 🛠	P
12	No branch 🗸 Analyzer Ready							Shortcuts	Flutte	r 3.3 ~	0

22. Hot Reload aplikasi untuk menampilkan gambar. Jika tidak muncul, pastikan dilakukan dengan benar.

Ŧ	FlutLab 💽 🤸 🔲 🛙	∆ G 🧿	Ξ	s*		ତ ୫ ଦ 📣
0 2 8	Explorer > Stetem from sa Mahasiswa > android > android > logo fak prog > logo > logo > kest > web > web > metshala > manyas, options yami		<pre>pubpecymml M ≥ mainAxisAlignment: Main children: shilget>[Padding(padding(child: Center(child: Center(</pre>	Strem Informati Mahaaiwa	් 2 2 2 2 2 3 3 0 3 3 3 3 0 3 7 9 3 7 9 3 7 9 3 7 9 3 7 9 3 7 9 3 7 9 3 7 9 3 9 3	/ Cente
œ &	> Dependencies > async (2.9.0) > boolean.selector (2.1.0) > characters (1.2.1) > clock (11.1) > collection (1.16.0) Flutter Outline	49 50 Outputs	Analyzer Tools Pub Comma rom service worker. ootstrap: Auto	Login Dafter Alun Mahasiwa In	Innut Decor at Lon -// Taxt P Git History Flutter Docu	mentation 🛠 📮
14	Io branch 🗸 🛛 Analyzer Ready				Shortcuts	Flutter 3.3 🗸 🛛 💿 🧶

- 23. Langkah terakhir adalah mengubah layout agar memungkinkan untuk di **Scroll**. Perhatikan berikut:
 - Ubah body: Center \rightarrow menjadi body: SingleChildScrollView
 - Hapus mainAxisAlignment: MainAxisAlignment.center,



Ŧ	FlutLab 🕟 🧲 🔲 🗐	🛆 G 🧿	🚍 Sistem Informasi Mahasiswa 🧪	😞 2+ Q 🔥
0 2 8	Explorer Stein Informasi Mahasiswa android orinages ios los bios bios bios	main.dart M X 28 WL0 29 F 30 31 32 33 34 35 36 37 37 38 39 40 41 42 43	<pre>product with with turn Scaffold(apgBur: AppBar(ittle: Text(Sistem Informasi Mahasiswa'), ittle: Text(Sistem Informasi Mahasiswa'), ittle: Text(Sistem Informasi Mahasiswa'), childre: https://www.settem.ontext production: childre: https://www.settem.ontext production: production: childre: https://www.settem.ontext production: productio</pre>	Sents
	> boolean_selector (2.1.0) > characters (1.2.1)	Outputs .	nalyzer Tools Pub Commands Tests Build Git History	
R	> collection (1.16.0)			
4			Flutter Docume	ntation 😤 📃
14				lutter 3.3 🗸 🔢 💿 🔳

24. Build Ulang Aplikasi untuk melihat hasil akhirnya

FlutLab web Explore Sistem Informasi Mahasiswa O Sistem Informasi Mahasiswa O Sontrol Vintiges Informasi Mahasiswa Vintiges Informa	Image: Constraint of the second sec	E adapte year M × 3 could out a context	Sistem Informasi Mahasiswa	 ♀ ♀	
> boolean_selector (2.1.0)	Outputs Ana	ilyzer Tools Pub Comm		Git History	
> characters (1.2.1) > clock (1.1.1) > collection (1.16.0) \$\$ Flutter Outline	Installed new servi Flutter Web Bootst	ice worker. rrap: Auto		Flutter Documentati	on * 🖻
P No branch				Shortcuts Flutter 3	3.3 ~ 🛛 💿 🖉

25. Aplikasi yang sudah jadi kemudian di ${\bf Screenshot}$ dan kirimkan ke ${\bf E-Learning}$

Bab 3

Praktikum 3

3.1 Halaman Registrasi dan Navigasi Page

3.2 Tutorial

- 1. Buka projek yang sebelumnya sudah dibuat
- 2. Sebelum memulai masuk ke pemrograman, lipat dulu **class** yang ada untuk mempermudah melakukan pemrograman. Klik **Tombol** yang ditunjukkan oleh Gambar berikut



3. Lipat semua class yang ada di kode agar terlihat seperti berikut

7	FlutLab.io - Flutter IDE onlin × +				~
÷	→ C iii flutlab.io/editor/6dde637t			< 🌣 🔍 🛼 😓 🗯 🗊	🖬 😫 🗉
Ŧ		∆ G 🧿 ≡	Sistem Informasi Mahasiswa 🥖	/ ২০	ы ф 🔥
D	Explorer	main.dart ×			
٩	 ✓ Sistem Informasi Mahasiswa > android > images 	<pre>1 import 'package:flutte 2 3 void main() => runApp(</pre>	r/material.dart'; MyApp());		
r		5 > class MyApp extends St	atelessWidget {…		
\$	Ib main.dart test test web metedada analysis_options.yaml pubspec.yaml Q README.md				-
		Outputs Analyzer Tools	Pub Commands Git History		:
Ŕ	> async (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1) > clock (1.1.1) > collection (1.16.0)	穿 👉 Project "Sistem Informasi Mahasiswa" w			
ŵ				Flutter Documentatio	n * 🖻

4. Berikutnya masukkan kode **class** untuk pembuatan tampilan **Pendaftaran** seperti berikut:



FlutLab.io - Flutter IDE onlin × +		× .
← → C 🔒 flutlab.io/editor/6dde633		< 🕸 🛡 🎂 🍋 🛊 🗊 🖬 😫 :
🐺 FlutLab 💿 🤌 🗌 🖨	G O ≡ Sistem Informasi Mahasiswa	응 완 수 🔥
Explorer Q > sandroid P > marges >> los >	<pre>maindartH x 20 > class LoginPage extends StatefulWidget {- 24 } 25 > class _LoginPageState extends State<loginpage> {- 3 } 84 5 class RegisterPage extends StatefulWidget [</loginpage></pre>	
 metadata analysis_options.yaml pubspec_yaml README.md 		
Dependencies async (2.9.0) boolean_selector (2.1.0) Characters (1.2.1) clock (1.1.1) clock (1.1.1)	Dutputs Analyzer Tools Pub Commands Git History Isundrated data Register/PageStatef. at [88:3] The method's Register/PageStatef. at [88:3] The method's Register/PageStatef. and Canado for the type Register/Page". at [88:39] The method's Register/PageStatef. (syman Strength and Statef. St	edget>Function(7). at [88:22]
Image: Second control (1.16.0) Image: Second control	TODO Firebase Login at [66:25] TODO Firebase Register at [74:22] Use 'const' with the constructor to improve performance. at [3:23]	Flutter Documentation 余 Shortcuts Flutter 3.3 ∨ ⑦ ■

5. Abaikan Error saat ini. Untuk menghilangkan Error itu, masukkan kode berikut: Potongan Kode

```
class _RegisterPageState extends State<RegisterPage> {
  @override
  Widget build(BuildContext context) {
    return Scaffold();
  }
}
```

7	FlutLab.io - Flutter IDE onlin × +		~
÷	→ C â flutlab.io/editor/6dde637		< ☆ 🛡 🏯 🐜 🕸 🖬 😫 🗄
Ŧ	FlutLab 🕑 🗲 🗌 🖨	G G	~ · · · · · · · · · · · · · · · ·
0 2 8	Evorer Stetern Informasi Mahasiowa android binagas bios bios bios bios bios bios bios bio	Immediatel X 00 01 02 03 04 05 05 06 07 08 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18 19 10 </th <th>0;</th>	0;
٩ ٩	Dependencies saync (2.9.0) boolean_selector (2.1.0) characters (1.2.1) belos (1.1.1) collection (1.16.0) Elutter Outline	Outputs Analyzer Tools Pub Commands Cit History Ib/main.dart 10000 Finabase Login at [66:25] 10000 Finabase Register at [74:22] Use toors with the constructor to improve performance. at [3:23] Use toors with the constructor to improve performance. at [15:13] Use toors with the constructor to improve performance. at [3:16]	i 🚯 Flutter Documentation 🛪 📮
.0.		Use a 'SizedBox' to add whitespace to a layout. at [39:28]	

6. Kode widget-widget akan dimasukkan ke dalam return Scaffold(). Pertama masukkan appBar yang digunakan untuk menampilakn Judul Halaman seperti berikut:



FlutLab.io - Flutter IDE onlin × +				~
← → C iii flutlab.io/editor/6dde637				< 🛧 🛡 🧟 🍖 🖈 🗊 🖬 🥵 :
F FlutLab 💿 🦸 🗌 🗟	🛆 G 🧿	≡	Sistem Informasi Mahasiswa 🧪	· · · · · · · · · · · · · · · · · · ·
Explorer Staten Informasi Mahasiswa > andosi > mages > bi > bis > mages > bis > tib > mandart > web > metsdata analysis.cytors yaml 0 READMER with	main dart M × 85 > class 89 } 90 91 class 92 @ow 93 Wild 94	RegisterPage ex _RegisterPageSt erride get bulld(BuildC eturn Scaffold(appBar: AppBar(title: Text('), // AppBas; // Scaffold	tends StatefulWidget {- ate extends State=RegisterPage> { ontext context) { Pendaftaran_Data_Mahasiswo'),	North State
Dependencies sayne (2.90) scharters (1.2.1) scharters (1.2.1) scharters (1.2.1) schector (1.1.60) scharters (1.2.1) schector (1.1.60) sFlutter Outline	Outputs lib/main.dart TODO Firebase I TODO Firebase I Use 'const' with II Use 'const' with II Use 'const' with II Use a 'SizedBox'	Analyzer Tools Login at [66:25] Register at [74:22] he constructor to improve p he constructor to improve p to add whitespace to a layo	Pub Commands Git History verformance. at [3:23] verformance. at [15:13] verformance. at [3:14] u. at [3:24]	Eluter Documentation (A)

7. Berikutnya adalah menambahkan widget layout yang dapat di Scroll beserta wadah Widget nantinya. Perhatikan Kode dan Gambar beirkut: Potongan Kode

```
body: SingleChildScrollView(
   child:Column(
      children: <Widget>[],
   )
)
```

Ŧ	FlutLab.io - Flutter IDE onlin × +						~
÷	→ C					G < 🕁 🧏	🧌 ъ 🖈 🖬 😂 🗄
Ŧ	FlutLab 💽 🗲 🗌 🖪	œG	⊙ ≡	Sistem	n Informasi Mahasiswa 🧪		୍ ୫ ଦ୍ 🔨
۵	Explorer ~ Sistem Informasi Mahasiswa	main.dart 92					
Q			Widget build	d(BuildContext context)			
r	> images > ios > lib		appBar:	AppBar(: Text('Pendaftaran Data	Mahasiswa'),		
ŝ	💊 main.dart), // A	ipBar ingleChildScrollView(
	> test		child	Column(Aller and a second seco
	Flutter Outline			d ren: <widget>[],</widget> Column ngleChildScrollView			
		103 104					
	🗲 МуАрр	Outputs	Analyzer	Pub Commands Tools	Git History		
	✓ ™ MyApp	🖙 👉 Projec	t "Sistem Informasi				
R	 ✓ Ø build (BuildContext) ✓ € MaterialApp € LoginPage 	()	Hey! We're rolling requests to test	g out a DEMO version of Al Assistan the Al superstar in Flutter coding. In	nt integration today. You have 2 In the next few days the full integration	× 🔊 Flutter F	Documentation
0	v 🔩 LoginPage		will be available	with a huge free tokens for premiun	n users.	Shortauta	

8. Sama seperti sebelumnya yang di mana kode **Widget** diletakkan di dalam kode
 Widget>[]. Tambahkan kode **InputText** untuk **NIM** seperti berikut:

```
Padding(

padding:

const EdgeInsets.only(top: 16.0, left: 16.0, right: 16.0),

child: TextField(

decoration: InputDecoration(

border: OutlineInputBorder(),

labelText: "NIM",

hintText: "Masukkan NIM Anda"))),
```



9. Kode berikutnya untuk InputText dengan isi Nama Potongan Kode

```
Padding(
   padding:
      const EdgeInsets.only(top: 16.0, left: 16.0, right: 16.0),
   child: TextField(
      decoration: InputDecoration(
        border: OutlineInputBorder(),
        labelText: "Nama",
        hintText: "Masukkan Nama Anda"))),
```

🐺 FlutLab.io - Flutter IDE onlin 🗙 🕂					~
\leftrightarrow \rightarrow \mathbf{C} $\hat{\mathbf{e}}$ flutlab.io/editor/6dde637				⊚ < ☆ №	🏪 ъ 🖈 🖬 😫 E
Ŧ FlutLab 💽 🦸 🔲 🛱	& G © ≡	Sistem I	nformasi Mahasiswa 🧪		응 완 후 🔨
Explorer					
Solution Informasi Mahasiswa Solution Solut		hintText: "Mas Padding: const EdgeInsets.o child: TextFjeld(deCortion: InputD labelText: "Ma labelText: "Mas // "Andge2/1 // Column // SingleChild	ukkan NIM Anda"))), // inn nly(top: 16.0, left: 16.0, ecoration(elnputBorder(), ma', kkan Nama Anda"))), // in crollView // Scaffold	ntDecoration // Tey	strield
🖌 MyApp	Outputs Analyzer	Pub Commands Tools	Git History		:
Image: WyApp	Project *Sistem Information (1) Heyl We're rol	asi Mahasiswa" was successfully loaded. Iing out a DEMO version of Al Assistant	integration today. You have 2		991
د LoginPage کی ا	will be availab	ist the Ar superstar in Flutter cooling. In t ole with a huge free tokens for premium	isers.	Flutter Do	cumentation < 🗾
No branch				Shortcuts	Flutter 3.3 🗸 🛛 💿 🖕

10. Selanjutnya adalah InputText untuk E-Mail. Perhatikan kode berikut:

```
Potongan Kode

Padding(

padding:

const EdgeInsets.only(top: 16.0, left: 16.0, right: 16.0),

child: TextField(

decoration: InputDecoration(

border: OutlineInputBorder(),

labelText: "Email",

hintText: "Masukkan E-Mail Anda"))),
```



11. InputText terakhir adalah untuk Password. Masukkan kode berikut:

```
Potongan Kode

Padding(

padding:

const EdgeInsets.only(top: 16.0, left: 16.0, right: 16.0),

child: TextField(

obscureText: true,

decoration: InputDecoration(

border: OutlineInputBorder(),

labelText: "Password",

hintText: "Masukkan Password Anda"))),
```

Ŧ	FlutLab.io - Flutter IDE onlin × +						~
÷	→ C				6	< 🕁 🥵	🐜 🎭 🖈 🖬 😫 E
Ŧ		🛆 G 🧿	≡	Sistem Informasi Mahasiswa 🥒			୍ ୫ ଦ୍ 📣
۵	Explorer	main.dart M ×	label"	avt. "Empil"			
Q			Badding/	ext: "Masukkan E-Mail Anda")))			TextFiel
es.			padding:	Incote only/tony 16.0 lofty	16 A rights	16.01	
ŵ	∼lib ©main.dart M		child: TextFin	eld(
	> test > web		decoration	: InputDecoration(
	🗧 🕹 Flutter Outline		label hintT	ext: "Password", ext: "Masukkan Password Anda")			// TextFi
		134 135					
	✓ Somain () → void ✓ MyApp						
	✓ ♣ MyApp	Outputs A	haiyzer Pub Commands	Tools Git History			
	 WyApp ((super.key)) <i>_title</i> → String 	= Project Sister	intormasi manasiswa was successru	iy loaded.			
Ŕ	✓ Ø build (BuildContext) ✓ Ø MaterialApp	() Hevel	Ve're rolling out a DEMO version of	Al Assistant integration today. You have 2			
-	€ LoginPage	reque will b	sts to test the Al superstar in Flutte available with a huge free tokens	r coding. In the next few days the full integra or premium users.	ation X	Flutter D	ocumentation 🛠 📮
2	No branch Y Analyzer Ready					Shortcuts	Flutter 3.3 × (2)

12. Widget berikutnya adalah Tombol. Masukkan kode berikut untuk menambahkan tombol Daftar





13. Tombol berikutnya adalah ${\bf Bersih}$ untuk menghapus input dari ${\bf InputText}$

```
Potongan Kode
Container(
  height: 50,
  width: 200,
  decoration: BoxDecoration(
    color: Colors.blue,
    borderRadius: BorderRadius.circular(15)),
    child: TextButton(
        onPressed: () {
            //TODO Bersihkan Input
        },
        child: Text(
            "Bersih",
            style: TextStyle(color: Colors.white, fontSize: 25),
  ))),
```



14. Tombol terakhir adalah **Batal** yang digunakan untuk kembali ke **Menu Awal (Login)**. Masukkan kode berikut:



← → C • Anaba ka kato kato kato kato kato kato kato	
FlutLab	
End/or Fordorer Teach Q Satem Informasi Mahasiswa 159 Pandod 150 Pandod 150 Pandod 150 Pandod 161 Pinages 161 Via 162 Via 163 Via 163	
Q > Jandroff P > Partin P > Partin > mages 161 > mages 161 > ins 162 Container(> vib > 163	
> images 161)))// // received // received // container >> iss 162 Container(Container() vib 163 Container() Container()	
P Sios 162 Container(height: 59,	
VID 105 Hergint, 50,	CONTRACT AND A CONTRACT OF A CONTRACT.
283 Smain.dart M 104 W1dth: 200,	
>test 165 decoration: BoxDecoration(******
> web 100 Colors Utility Colors (Colors) Colors (Colors) Colors (Colors)	
▼ Flutter Outline ⊕ 158 cfill TextButton(
169 onPressed: () {	
V () main.dart 170 //TODO_Batalkan	
$\checkmark \otimes main \ 0 \rightarrow void \ 171$	
€ MyApp 1/2 Batal	
v № MyApp 174 style: TextStyle(color: ©Colors.white, fontSize: 25)	
MyApp ((superkey) 175))), // Text // TextButton // Container	
V & build (BuildContext) Outputs Analyzer Pub Commands Tools Git History	
AsterialApp AsterialA	
K CoginPage Contract Internation a water of the operation of the	
200 V Ar LoginPage	

15. Berikutnya adalah memberi fitur **Navigasi Halaman** agar aplikasi dapat berpindah ke halaman lainnya. Kembali ke bagian **LoginPage** dan temukan **TextButton** registrasinya. Gunakan **Flutter Outline** di sebelah **Kiri Bawah** untuk mempermudah pencarian, dan **Klik** target tujuan:



16. Di bagian dalam **onPressed:**(), masukkan kode berikut setelah **Komentar TODO**:



17. Build app yang sudah dibuat dan cek hasilnya



18. Karena **Tombol** terlalu dekat satu sama lainnya, maka tambahkan kode berikut ke semua **Tombol** yang ada:

```
margin: EdgeInsets.only(top: 16.0, left: 16.0, right: 16.0),
```

• Tombol Login



• Tombol Daftar



• Tombol Bersih

🝸 FlutLab.io - Flutter IDE onlin 🗙 🕂			~
\leftrightarrow \rightarrow C $$ flutlab.io/editor/6dde63			< 🖈 🧏 🍢 ъ 🖬 😫 E
₹ FlutLab 💿 🗲 🗌 🖨	@ G ⊚ ≡	Sistem Informasi Mahasiswa 🧪	୍ କ ଦ 🚫
Explore Q > android >> android > android >> android > android >> android > android >> and > test >> web Flutter Outline	Image (det) M × 151 152 153 153 155 Con 157 155 156 Con 159 159 161 161 163 163 164 163 164 164	<pre>>, chid: Text(Toftar*, style: TextStyle(color: ■Colors.white, fontSize: 2))) // foreignets. partin: EdgeInsets.only(top: 16.0, left; 16.0, right: 16. meight: 50. decoration: BoxDecoration(color: @Colors.blue, borderRadius.BorderRadius.circular(15)), // BoxDecoration(chid: TextButton(</pre>	
	Outputs Analyzer	Pub Commands Tools Git History hasiswa* was successfully loaded.	Flutter Documentation *

• Tombol Batal



19. Cek kembali hasilnya dan **Screenshot** hasil aplikasi saat ini dan kirimkan ke **E-Learning**



Bab 4

Praktikum 4

4.1 Integrasi Firebase

Di bagian ini mahasiswa diperkenalkan bagaimana melakukan pembersihan baris kode yang tidak diperlukan, integrasi ke Realtime Database, dan melakukan operasi register data. Mahasiswa diwajibkan untuk menyelesaikan Praktikum 3

4.2 Tutorial

- 1. Buka projek sebelumnya, dan pastikan untuk membuka projek yang tepat
- 2. Berikutnya adalah memisahkan halaman **Register** ke file terpisah. Arahkan **Mouse** ke folder **lib**, dan klik **Create File**



3. Beri nama register.dart sebagai file baru, dan klik Create

Ŧ	FlutLab 💽 🗲 🔲 🗟	🗠 G 🔘	≡	Sistem Informasi Mahasi:	swa /	응 완 수 🔥
n						
						Martine .
Q						
				style: TextStyle(color: Color:		
8			TextButte	on/		and the second sec
63			Enter full	l file name		
						All and a second
			Files area with a			
	analysis ontions vam		register.dar	rt		
					(Sterrage()); // Material	rageroute
						Alter and a second
			Analyz	< CANCEL CREAT	E V	/ / /////////////////////////////
				tores and the local set		
		= Project Sist				
R						
					Concentration Flutter	Documentation 🐟
-O:						
4						Flutter 3.3 ~ 💿 🌘

4. File **register.dart** akan terbuka, lalu **PINDAHKAN** kode berikut dari **main.dart** ke register.dart. Lipat kode untuk mempermudah pemindahan

Ŧ	FlutLab 🕑 🗲 🗌 🗔	🙆 G 💿 🚍 Sistem Informasi Mahasiswa 🌶	😞 ድ ር 🔥
D	Explorer	main.dart × register.dart A ×	
_	 Sistem Informasi Mahasiswa Sandroid 		
	> images		
°,	> ios ∽ lih	00 > class RegisterPage extends StatefulWidget {	
\$	🗧 main.dart		
	 Interview A Strengthered A Strengther	<pre>16 > class _RegisterPageState extends State<registerpage> { 147 }</registerpage></pre>	
	.metadata analysis_options.yaml		
	pubspec.yaml		
	~ Dependencies	Outputs Analyzer Pub Commands Tools Git History	:
	> async (2.9.0) > boolean_selector (2.1.0)	= 👉 Project "Sistem Informasi Mahasiswa" was successfully loaded.	
R	> clock (1.1.1) > collection (1.16.0)		_
亞			In Flutter Documentation ☆ Flutter Documentation ☆
19	No branch 🛩 Analyzer Ready		Shortcuts Flutter 3.3 ~ ③
¥	FlutLab 💿 🖌 🔲 🗟	A G O ≡ Sistem Informasi Mahasiswa	응왕 쇼 A
·	Explorer	main dart M × register dart A ×	· • • •
		1 > class RegisterPage extends StatefulWidget {	
Q			
°}₂2		7 > class _RegisterPageState extends State <registerpage> {</registerpage>	
62	vib Se main dart M		
\$	egister.dart A		
	.metadata		
	analysis_options.yami		
		Outputs Analyzer 👀 Pub Commands Tools Git History	:
	> async (2.9.0) > boolean_selector (2.1.0)	😑 🁉 Project "Sistem Informasi Mahasiswa" was successfully loaded.	
R	> clock (1.1.1) > collection (1.16.0)		
ō			In the second secon
19	No branch 🛩 Analyzer Ready		Shortcuts Flutter 3.3 ~ ③ @

- 5. Pastikan **TIDAK ADA** kode **Register** di file **main.dart**. Hal ini untuk mencegah terjadinya error di pertemuan-pertemuan berikutnya.
- 6. Kedua file akan mengalami **Error**. Untuk memperbaiki kode **register.dart** tambahkan satu baris kode ini di **Baris 1**

import	'package:flutter/material.dart';			
Ŧ	FlutLab 💿 🗲 🗌 🖨	∆ G ● ≡	Sistem Informasi Mahasiswa 🥒	୍ ୫ ଦ୍ 🔨
-------------	--	---	---	---------------------
0 2 8	Explorer > Sloter Informasi Mahasiswa > android > trages > lois > lois Carear dart A degater dart > web P metadata analysis, options yami	<pre>maindart31 x3 [register/artA.x] 1</pre>	.dart'; fulWidget {- State=RegisterPage> {-	
® ₿	 > Dependencies > async (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1) > celect (1.1.1) > cellection (1.1.6.0) A Flutter Outline 	Outputs Analyzer 🚺 Pub Commands 📼 🖝 Project "Sistem Informasi Mahasiava" was successfully l	Tools Git History aded.	: imentation 🖈 📑

7. Lalu untuk memperbaiki kode **main.dart** cukup tambahkan kode berikut di **Baris**

F FlutLab 💽 🥖 🗌	🖻 🛆 G 🎯 ☰	Sistem Informasi Mahasiswa 🥒	😞 완 수 📐
Explorer	main.dart M × register.dart A ×		
Statem Informasi Mahaasiwa Jandioid Ji maqos Ji maqos Ji maqos Vib Vib Compandant Vib Compandant Vib Compandant Vib Compandant Company Company	a) 1 import 'register.d' 3 void main() => run 5 class MyApp extend 6 class MyApp extend 7 const MyApp(sup) 8 static const Str 9 @overide 10 Widget build(buil 11 return Materia 22 title: titl 13 theme: Theme 14 oprimarySwa	utter/material.dart'; art'; is StatelessWidget { er.key); ing_title = 'Sistem Informasi Mahasiswa'; ldContext context) { LApp(e, Data(cit,= @colors.blue.	
	Outputs Analyzer Put	o Commands Tools Git History	E
 > async (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1) > clock (1.1.1) > collection (1.16.0) 	⊯ 👉 Project "Sistem Informasi Mahasis		
			In the second secon
12 Markensek av			

8. Semua Error sudah hilang, berikutnya melakukan integrasi ke Firebase. Klik Icon G, lalu pilih Connect to Firebase

Ŧ	FlutLab 💽 🖌 📮 🖻	<u> </u>	Sistem Informasi Mahasiswa 🥒	😞 ጅ ር 🔥
n	Explorer 🖉 C	Connect to Firebase		
Q	✓ Sistem Informasi Mahasi > android	Connect to Google Maps	age:flutter/material.dart'; ster.dart';	
وع ع	> images > ios > lib	4 void main()	=> runApp(<u>NyApp()</u>);	
	main.dart M register.dart A test > web metadata analysis.options.yaml pubspec.yaml	6 class MyAp 7 const MyA 8 static co 9 @override 10 Widget bu 11 return 12 title 13 theme 14 theme	extends StatelessNigget { p((super.kgy)); pst String _title = 'Sistem Informasi Mahasiswa'; http://dlocontext context) { MaterialApp(: title, :ThemeData(monSuperty); @Color: blue	
	✓ Dependencies saync (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1)	Outputs Analyzer	Pub Command Tools Of History si Mahasiowa" was successfully leaded.	1
	> clock (1.1.1) > collection (1.16.0)			
			S Flutter Do	cumentation 🕿 🗾
19	lo branch 🗸 🛛 Analyzer Ready		Shortcuts	Flutter 3.3 🗸 🛛 💿 🖕

9. Flutlab akan menampilkan pilihan platform App yang menjadi target. Sebelum memilih buka website https://firebase.google.com. Login ke Google apabila belum, Klik Go to console di atas kanan. Pilih Projek yang sudah dibuat sebelumnya. Hingga tampil dasbor Firebase

👌 Firebase	Praktikum-MobileApp 👻	0 🖬 🌲 🏀
🔒 Project Overview 🔅	Praktikum-MobileApp spark plan	
	com.example.prakt_ + Add app	
🚍 Realtime Database		
	Build	
Build ~	Realtime Database	
Release & Monitor 🛛 🗸 🗸	Downloads (7d total) Storage (current)	
Analytics 🗸	10.1KB +36.5% OB	
Engage ~	7.42K 138	
All products	3.71K 0	
No-cost \$0/month Upgrade	Mar 31 Apr 1 Apr 2 Apr 3 Apr 4 Apr 5 Apr 6 Mar 31 Apr 1 Apr 2 Apr 3 Apr 4	Apr 5 Apr 6
	— This v	veek – – Last week

10. Untuk meng-konfigurasikan, klik **Roda Gigi** di samping **Project Overview**, lalu pilih **Project Settings**

🍐 Firebase	Praktikum MabileApp +	0 🛛 🔺 🏀
🟫 Project Overview 🛛 🌣	Project settings - Um-MobileApp (Spark plan)	
	Users and permissions mple.prakt. + Add app Usage and billing	
Product categories	Build	=
Build ~	E Realtime Database	
Release & Monitor 🔹 🗸 🗸	Downloads (7d total) Storage (current)	
Analytics 🗸	10.1KB +36.5% OB	
Engage 🗸 🗸	1.40x A 1.33	
III All products	3.71К б9	
Spark Upgrade No-cost \$0/month	Mar 31 Apr 1 Apr 2 Apr 3 Apr 4 Apr 5 Apr 6 Mar 31 Apr 1 Apr 2 Apr 3 Apr 4	Apr 5 Apr 6
	- This w	eek – – Last week

11. Scroll ke bawah dan cari panel $\mathbf{Your}\ \mathbf{apps}$



12. Pilih Android

붣 Firebase	Praktikum-MobileApp - Project settings	0		۲	1		
🟫 Project Overview 🔅	Publichtang name (r) project / 92831026861						
Project shortcuts	adoption entain (g) Not configured						
Realtime Database							
Product categories	Your apps			-			
Build 🗸	N. Contraction of the second sec						
Release & Monitor 🛛 🗸 🗸							
Analytics 🗸	Select a platform to get started						
Engage 🗸 🗸							
All products							
Spark Upgrade No-cost \$0/month	Delete project						
<							

13. Lalu Firebase akan menampilkan Wizard untuk menambahkan App baru. Masukkan id.ac.usm sebagai Android package name dan SIMA sebagai App nickname. Klik Register app

P Register app		
Android package name		
id.ac.usm		
App nickname (optional) 🕥		
SIMA		
Debug signing certificate SHA-1 (optional) 🕥		
00:00:00:00:00:00:00:00:00:00:00:00:00:	0:00:00:00:00:1	
Required for Dynamic Links, and Google Sign-In or	phone number support in Auth.	

14. Langkah berikutnya adalah mengunduh file **google-services.json**. Cukup klik **Tombol** yang disediakan

0	Download and then add config file Instructions for Andreid Studio below Later (2) C++ (2) Download google-services.json Switch to the Project view in Andreid Studio to see Instructions for Andreid Studio to see Instructions for Andreid Studio to see Switch to the Project view in Andreid Studio to see Instructions for Andreid Studio to see Instructions for Andreid Studio to see Instructions for Andreid Studio to see	a to desite
	Move your downloaded google-services. json file into your module (app-level) root directory.	
	Next	
3	Add Firebase SDK	
0	Next steps	

- 15. Tutup Wizard jika sudah selesai mengunduh
- 16. Kembali ke **FlutLab**, pilih **Android** lalu unggah file **google-services.json**. Klik **Continue** sesudah unggah

Ŧ	FlutLab 🕞 🥖 🔲 🖪) & G 🔘	🗮 Sistem Informasi Mahasiswa 🖋	응 완 후 🔥
п				
Gilly			Firebase Connect ×	
Q				
, <mark>2</mark>				
8				
-			Please select Firebase google-services ison to continue	
			Drag and Drop google.cervices icon here	
	imetadata		Of	
	Analysis options vami			
R			< CANCEL CONTINUE	
M.	A Flutter Outline			Inter Documentation ☆ ■
-Ur				
ا ح				
8	google-services.json ^			

17. Berikutnya pilih Services yang akan dipakai. Pilih Core, Realtime Database, dan Cloud Storage. Terakhir klik Connect

Ŧ	FlutLab 💽 🗲 🗌 🖨	& G (5	Î 🛛 🕹 수 🔥
D					-	
			Choose Fire	ebase products to use in	your project	
Q						The second secon
202			Firebase core	Cloud	Crashlytics	
•			(required)	- Firestore		
्र						
			Analytics	Cloud	Performance Monitoring	
				Functions	Monitoring	
			App Check		Database	
				wessuging		1
~			Authentication	🛃 Cloud Storage	Remote Config	
R						999
÷.					CANCEL CONNECT	Flutter Documentation
19						Shortcuts Flutter 3.3 ~ ③
8	google-services.json ^					Show all X

18. File baru akan ditambahkan dengan nama **firebase_options.dart**. File ini menjadi bukti kalau konfigurasi dan integrasi **Firebase** sudah sukses

Ŧ	FlutLab 💽 🗲 🗌	6 (ΔG	٢	≡		Sistem	Informasi Mahasiswa 🥒			ු ස	۰¢ (A
0 2 *	Explorer Statem Informasi Mahasiswa android brages bos bos bos main dart coster dart b test b web b medata	MA		t M × } } sta a a m p s	tic cons piKey: ' ppId: '1 essaging rojectId torageBu	art A x) firebase_option v Unst portedtre raultFirebaseOption AIza5yAxG70VRxbv :792831026861:ar ySenderId: 79283 : 'praktikum-mot ucket: 'praktikum	ns.dartA × br(tions are tions	not supported for this I = FirebaseOptions(DYN9JUKXPLybCg', defe363de45fe3e80824', 18bb', p-878bb.appspot.com'					
			Output		Analyzer	Pub Commands	Tools	Git History					
œ ®	S_flutterfire_internals (1.1.0) saync (2.9.0) boolean_selector (2.1.0) scharacters (1.2.1) characters (1.2.1) Flutter Outline		æ 👉 Pro	ject "Sist						Flutter Doc	umentatior	*	-994
4	No branch 🛩 Analyzer Ready									Shortcuts	Flutter 3.3	·~] @	
8	à google-services json ^ Show all X												

- 19. Untuk mengecek apakah dependency dasar sudah terpenuhi, buka file **pubspec.yml** dan cari baris teks seperti berikut:
 - firebase_core
 - firebase_database
 - firebase_storage

- 20. Jika ada yang belum terpasang di dalam projek, bisa di atasi dengan menggunakan bantuan **Pub Command** di bagian bawah. Klik **Pub Add** dan masukkan **item** di langkah 19. Satu per satu dan gunakan **Enter**
- 21. Jika sudah dimasukkan ke dalam **yml** maka langkah berikutnya adalah menekan tombol **Pub Get** untuk mengunduh secara otomatis.
- 22. Screenshot dan kirimkan ke E-Learning

Bab 5

Praktikum 5

5.1 Operasi Insert Data Flutter

Di bagian ini mahasiswa diajarkan bagaimana melakukan input dan penarikan data serta melakukan query ke Firebase. Mahasiswa diwajibkan untuk menyelesaikan Praktikum 4

5.2 Tutorial

- 1. Buka kembali Website flutlab.io. Lalu buka file **register.dart**
- 2. Cari baris class __RegisterPageState extends State<RegisterPage>, lalu tambahkan kode berikut tepat di bawahnya

```
Potongan Kode
final NIMControl = TextEditingController();
final NamaControl = TextEditingController();
final EmailControl = TextEditingController();
final PasswordControl = TextEditingController();
@override
void dispose() {
    // Clean up the controller when the widget is disposed.
    NIMControl.dispose();
    NamaControl.dispose();
    EmailControl.dispose();
    PasswordControl.dispose();
    super.dispose();
}
```

	Ŧ	FlutLab 🕑 🗲 🗌 🗐	🗠 G 💿 = Sistem Informasi Mahasiswa 🖉 🛇	ድ ር 🔨
G	۵	Explorer	main.dart × register.dart M ×	
□ ₽ +	ପ ଅ ଞ	 Stern Informasi Mahasiswa > android > images > ios > in man dart © register dart M > test > web a metodata > objective internas (1.11) > a sync (2.90) > Linderfree internas (1.10) 	<pre>class_RegisterPageState extends State=RegisterPage> { final NUMControl = TextEditingController(); final final final(control = TextEditingController(); final final(control = TextEditingController(); deverride void dispose() { Void dispose() { Void dispose() { Void dispose() {</pre>	
		> characters (1.2.1)	Outputs Analyzer Pub Commands Tools Git History	1
		> clock (1.1.1)	🖩 🍲 Project "Sistem Informasi Mahasiswa" was successfully loaded.	tation 🕿 📑
۲	2 P P	No branch V Analyzer Ready	Shortcuts Flut	ter 3.3 ~ ③ •

- 3. Tempelkan masing-masing kontroler ke **widgetnya**. Perhatikan kode dan Gambar secara teliti
 - Widget $NIM \rightarrow NIMControl$ controller: NIMControl, Potongan Kode



• Widget $Nama \rightarrow NamaControl$ Potongan Kode

controller: NamaControl,

Explorer	main.dart × register.da		
Staten Informasi Mahasiawa Santoni Santonina antoni Santoni Santoni Santoni		labelText: "NUM", hintText: "NUM", hintText: "NuSukkan NIM Anda"), // ImputDecoration controller: NURControl, Padding: const EdgeInsets.only(top: 16.0, left: 16.0, right: 16.0), child: TextField(decoration: InputDecoration(border: OutlineInputBorder(), labelText: "Nama", hintText: "Musukan Nama Anda"), // inputDecoration	
Copendencies S_flutter/ire_internals (1.1.1) Saync (2.9 0) Soolean_selector (2.1.0) characters (1.2.1) clock (1.1.1)	53 54 55 56 Outputs Analyzer	D), // TextField // Fedding Padoing: const EdgeInsets.only(top: 16.0, left: 16.0, right: 16.0), PubCommands Tools Git History asi Muhasiwa" was successfully loaded.	

Widget Email → EmailControl
 Potongan K





Wdiget Password → PasswordControl
 Potongan Kode
 controller: PasswordControl,



4. Setelah mengeset **controller** ke semua widget, kini aplikasi dapat mengambil maupun mengeset data. Scroll turun ke widget Button **Bersih** dan masukkan kode berikut:





5. Kemudian agar button **Batal** bisa berfungsi, masukkan kode berikut:

//TODO Batalkan Navigator.pop(conte	Potongan Kode	
Cistem Informati Mahatawa Cistem Informati Mahatawa	Image: Contract of the second state	

6. Untuk bisa melakukan kueri ke Firebase, pertama-tama **import** firebase reference dengan kode berikut:



7. Lalu tambahkan variabel global tepat di bawah kode import

	();		
	<u>a e o</u> =	Sistem Informasi Mahasiswa 🥻	
Explorer Q > satem Informasi Mahasiswa Variages > satem Informasi Mahasiswa Variages > sos Vilb © main dart © register dart M > test > ueb > metadata > web	<pre>mmindort % registerdant X % import 'package:flut import 'package:flut final DatabaseRefere const RegisterPage Const RegisterPage Const RegisterPage RegisterPage RegisterPage Cass RegisterPage Cass RegisterPage final AllMCONTRol = final NIMCONTRol S Final NIMCONTRol S Final NIMCONTROL S SegisterPage S SegisterPage S SegisterPage S SegisterPage S SegisterPage S SegisterPage SegisterPage S SegisterPage SegisterPage S SegisterPage Segister</pre>	<pre>ter/material.dart'; base_database/firebase_database.dart'; mce _databaseReference = FirebaseDatabase xxtends StatefulWidget { ((super.key)); e createState() => _RegisterPageState(); itate extends State<registerpage> { . TextEditingController();</registerpage></pre>	2.instance.ref();
	Outputs Analyzer Pub Cr TODO Bershkan lepur, at [119:25] TODO Batalkan at [138:25] TODO Batalkan at [138:25] The variable name 'ManaControl' sin't a lo The variable name 'ManaControl' sin't a lo The variable name 'ManaControl' sin't a lo The variable name 'PasawodControl' sin't a lo The variable name 'PasawodControl' sin't a lo	ommands Tools Of History werCamelCase identifier: at [13:9] werCamelCase identifier: at [14:9] werCamelCase identifier: at [15:9] a JoweCamelCase identifier: at [16:9]	Flutter Documentation a

8. Kemudian scroll turun ke bagian button **Daftar** dan masukkan kode berikut untuk mengambil data

```
Potongan Kode _______

//TODO Firebase Insert

String NIM = NIMControl.text;

String Nama = NamaControl.text;

String Email = EmailControl.text;

String Password = PasswordControl.text;
```



9. Kemudian bungkus data-data tersebut dalam bentuk **dictionary**, perhatikan kode dan gambar di bawah



FlutLab 💽 web 🗸) 🗲 🗋 🖨 🛉	∆ G ⊙ ≡	Sistem Inf	ormasi Mahasiswa 🥒	\$	음 수 🔥
Explorer		× register.dart M ×				
 Sistem Informasi Mahasi android images ios lib firebase_options.dar main.dart test web metardara 			<pre>hild: TextButton(onPressed: () { //TODO Firebast String NIM = NIM String Email = E String Fassword // Petakan Data MapoString, Stri 'nim': NIM, 'nama': Nama,</pre>	Inseri KControl.text; mmaControl.text; = PasswordControl.text; ke Dictionary ing> data = {		
✓ Dependencies S_flutterfire_internals (1.1 async (2.9.0) boolean_selector (2.1.0) characters (1.2.1) clock (1.1.1)			<pre>chill: tenal; 'password': Pa }; child: Text("Daftar", style: TextStyle))), // Text //</pre>	e(color: •Colors.white,	fontSize: 25),	,
	Outputs	Analyzer Pu	b Commands Tools	Build Git History	Flutter Documenta	ation 🕿 🔽 🖻

10. Kemudian tambahkan kode untuk melakukan kueri insert dan pengecekan keberhasilan





11. Langkah berikutnya adalah mengubah fungsi main karena harus melakukan inisialisasi database. Buka main.dart dan beri tanda // di depan baris kode void main() => runApp(MyApp());

Ŧ	FlutLab 🕟 web 🗸 🥠		න G ⊙ ≡	i	Sistem Infe	rmasi Maha	asiswa 🥒		\$ 2⁺	ф 🚺
٥	Explorer	main.dart M	M × register.dart N	1 × flutter/mate	ial dart'					
م پ	 > android > images > ios 	2 in 3 in 4 in 5	nport 'register nport 'package: nport 'firebase	.dart'; firebase_cor _options.dar						
\$	✓ lib		<pre>/ void main() = lass MyApp exte const MyApp({s static const S @override</pre>	<pre>runApp(MyA ends Stateles super.key}); string _title</pre>	sWidget { = 'Sistem					
	Dependencies Jufutterfire_internals (1.1.1) async (2.9.0) boolean_selector (2.1.0)		Widget build(E return Mater title: _ti theme: The primaryS), // Ther home: Logi	BuildContext FialApp(ttle, emeData(Swatch: Colo neData EnPage(),						
Ŕ										
۵.		Outputs	Analyzer	Pub Commands	Tools	Build	Git History	S Flutter Doc	umentation	* P

12. Lalu di bawahnya baris kode yang diberi komentar tadi, masukkan kode berikut:



13. Aplikasi ini akan gagal ketika dijalankan, sehingga harus ditambahkan akses baru untuk aplikasi Web. Buka link https://firebase.google.com, buka Project Settings (Gigi Roda), pilih General, Scroll Down ke Your Apps, klik Add App

Inter Documentation ☆

Widget build(BuildContext context) {



14. Pilih platform **Web**



15. Beri nama SIMA App, lalu klik Register App

imes Add Firebase to your web app	
Register app App nicksame ① SIMA App	
Also set up Firebase Hosting for this app. Learn more (? Hosting can also be set up later. There is no cost to get started anytime.	
Repister app	
2 Add Hrebase SDK	

16. Lalu kopi kode yang diperlihatkan Firebase



17. Kembali ke Flutlab, klik **Icon G**, pilih **Connect to Firebase**, pilih **Icon Web** yang sama dengan Firebase sebelumnya

Ŧ	FlutLab 💽 🤌 🔲 🗔	🖎 G 🥥 🗮 Sistem Informasi Mahasiswa 🖉	😞 완 다 🔥
D			
0 ** @		<pre>import 'register.dart'; import 'package:firebase_core/firebase_core.dart'; import 'firebase_options.dart'; // void main() => runApp(UyApp()); // void main() => runApp(UyApp()); // void main() => Firebase Connect X</pre>	
		10 await Fire 11 options: 12); 13 runApp(<u>MyA</u> ios ^m ,	
			swa';
R			
10 11 11	☆ Flutter Outline No branch ✓ Analyzer Ready	Outputs Analyzer Pub Commands Tools Build Git History	Shortcuts Flutter 3.3 ~ ()

18. Tempel kode dari FIrebase, dan klik **Continue**

Explorer	Firebase Connect ×	
	EV E E E E E	
	projectif: "problem: mobilings 7158"," more approximation of the problem of the	
∰ 🌣 Flutter Outline	< CANCEL CONTINUE	Solution

19. Di menu selanjutnya pilih

- Firebase Core
- Realtime Database
- Cloud Storage

> android > images > ios	2 1 3 1 4 1 5	Choose Fir	rebase products to use in	your project	
 ✓ lib Irebase_options.dart main.dart register.dart M 		Firebase core (required)	Cloud Firestore	D Performance Monitoring	
> test > web imetadata		Analytics	Cloud Functions	Realtime Database	
 ✓ Dependencies >_flutterfire_internals (1.1.1) > async (2.9.0) 		App Check	Cloud Messaging	Remote Config	
> boolean_selector (2.1.0) > characters (1.2.1) > clock (1.1.1)		Authentication	Cloud Storage		
☆ Flutter Outline to branch ∨ Analyzer Ready				CANCEL CONNECT	Flutter Documentation Flutter 3.3 O

20. Sesudah terhubung, maka aplikasi siap digunakan. Jalankan Web Emulator dan coba melakukan registrasi. Isikan **NIM TANPA TITIK** untuk mencoba.

¥	FlutLab 💽 web 🗸 🥠	🔲 🗟 G 🍥 🗮 Sistem Informasi Mahasiswa 🖌	😞 ድ ር 🚫
ロ く 。 よ の の の の の の の の の の の の の の の の の の	Explore Steff informasi Mahasiswa Sandroid Inages Jos Iois Tribbare_options dart Engoter dart Mandatt Engoter dart Mathematical state Dependencies Jonagen (2,10) Scharters (1,11) Sequences (2,10) Scharters (1,21) Scholk (1,11) 	<pre>Import inguiterSortM xk Import 'register dart'; I</pre>	
	☆ Flutter Outline	Outputs Analyzer Pub Commands Tools B	Flutter Documentation *
¢	Firebase	raktikum-MobileApp + Realtime Database	0 d a 🖗
	ject shortcuts	ata kules Backups Usage 🛛 🕹 Extensions 👫	
Pro	Realtime Database duct categories ild	GD https://prakilkum-mobileapp-878bb-default+tdb.asia-southeast1.firebasedatabase.app	≎ X :
Re An	lease & Monitor V	https://praktkum-mobileapp-8/8bb-default-rtdb.asia-southeast1.firebasedatabase.app/ Ma31510038 email: "maulanahirzan@omail.com"	
En	gage ~	nama: "Alauddin Maulana Hirzan" — nim: "M0315100038" —	

21. Data Mahasiswa lain dapat masuk ke ${\rm DB}$

붣 Firebase	Praktikum-MobileApp 👻	0	ð 🌲	٠
🚖 Project Overview 🛛 🌣	Realtime Database			
Project shortcuts	Data Rules Backups Usage 🏶 Extensions 🛤			
🚍 Realtime Database				
Product categories	C https://praktikum-mobileapp-878bb-default-tfdb.asia-southeast1.firebasedatabase.app	\$	×	:
Build	https://praktikum-mobileann-878bb-default-rtdb_asia-southeast1_firebasedatabase_aon/			-
Release & Monitor 🛛 🗸 🗸	 Mahasiswa 			
Analytics ~				
Engage 🗸 🗸	email: "AZERTY"			
All products	- nime GYEAT 1 - nime 'G212310001' - password: '12345'			
Spark Upgrade No-cost \$0/month	• N031510038			+
<	Database location: Singapore (asia-southeast1)			

22. Screenshot Database dan kirimkan ke E-Learning

Bab 6

Praktikum 6

6.1 Operasi Read Data Flutter

Di bagian ini mahasiswa diajarkan bagaimana membuat tampilan profile untuk pengguna, sekaligus proses Login yang dilakukan dengan menggunakan Flutter. Mahasiswa diwajibkan menyelesaikan Praktikum 5 sebelum memulai praktikum ini.

6.2 Tutorial

1. Praktikum ini dimulai dengan membuka praktikum sebelumnya.

Ŧ	FlutLab 📀 🗲 🗌 🗟	🙆 G 💿 🚍 Sistem Informasi Mahasiswa 🖋	🛛 🕞 😒 🖉 🔨
n	Explorer	main.dart ×	
۹ ۲	 ✓ Sistem Informasi Mahasiswa > android > images > ios 	1 import 'package:flutter/material.dart'; 2 import 'package:firebase_core/firebase_core.dart'; 3 import 'firebase_options.dart'; 4 import 'register.dart';	E BORNES E BORN
ŝ	 ✓ IIb Infrebase.options dart Infrebase.options dart Infrebase.options dart Infrebase.options	<pre>> 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7</pre>	
Ŕ	✓ Dependencies S_flutterfire_internals (1.2.0) Sayne (2.9.0) boolean_selector (2.1.0) > characters (1.2.1) > clock (1.1.1)	Outputs Analyzer Pub Commands Tests Tools Git History	:
쇼 문	☆ Flutter Outline No branch ✓ Analyzer Ready	Get all from FlutLab - Discover Premium!	Flutter Documentation \Leftrightarrow

2. Buatlah satu file baru dengan nama profile.dart

¥		🛆 G 🧿	=	Sistem Informasi Mah	asiswa 🥒	
Ω	Explorer		profile.dart A 🗙			Successfully created
Q						
<u>ء</u> 2						
4						
63	firebase_options.dart					
	🕥 profile.dart A					
	S register.dart					
	> test					
	e imetadata					
	analysis_options.yaml					
		Outputs	Analyzer Pub Command	s Tests Tools	Git History	
		= 👉 Project	"Sistem Informasi Mahas	iswa" was successfully	loaded.	
	> boolean_selector (2.1.0)					
Ŕ						
35.	A Elution Outline					Flutter Documentation 😞 🖃
-0:			🎐 Get all from	FlutLab - Discover Premiu	im! X	

3. Masukkan kode import sebagai Library Dasar aplikasi



4. Kemudian buatlah tampilan Profile dengan kode sebagai berikut. Tambahkan setelah kode ${\bf import}$





5. Sesudah itu, buka file **main.dart** lalu **Import** file **profile.dart** seperti berikut:

F FlutLab 💿 🤸 📋 🖨	G	Free 🛇 음+
Explorer	main.dart M × profile.dart A × register.dart ×	
 Sistem Informasi Mahasiswa 	1 import 'package:flutter/material.dart';	
Q > android	3 import 'firebase options.dart':	
	4 Prost 'register.dart';	
y ins	5 import 'profile.dart';	
් firebase options dart		
S main.dart M		
Sprofile.dart A	9 Future <void> main() async {</void>	
💊 register.dart	10 WidgetsFlutterBinding.ensureInitialized();	
> test	11 await Firebase.initializeApp(
> web	12 options: DefaultFirebaseOptions.currentPlatform,	
imetadata	15), 14 runApp(MvApp()):	
analysis_options.yaml		
~ Dependencies		
> _flutterfire_internals (1.2.0)	17 class MyApp extends StatelessWidget {	
> async (2.9.0)	19 static const String_title = 'Sistem Informasi Mahasiswa':	
> boolean_selector (2.1.0)	20 @override	
R > dock (1.1.1)	<pre>21 Widget build(BuildContext context) {</pre>	

6. Agar bisa terhubung ke database, tambahkan kode berikut tepat di bawah **import** sebelumnya



7	FlutLab 💽 🧲 🔲 🗟) 🛆 G 🔘 \Xi Sistem Informasi Mahasiswa 🖍 🛛 Free 😔 😤*	ф 🔥
C C L C L C C L C C L C C L C C L C C L C C L C C L C C L C C C L C	Explorer Standcold Standcold The stand of	<pre>maindurtM x profile.dartA x Trepiter.dart x import 'package:flutter/material.dart'; import 'package:flutter/material.dart'; import 'frebase_options.dart'; import 'register.dart; import 'package:fluebase_options.dart'; import 'package:firebase_database/firebase_database.dart'; import 'package:firebase.database/firebase_database.dart'; import 'package:firebase.database/firebase_database.art'; import 'package:firebase.database/firebase_database.art'; import 'package:firebase.database/firebase_database.instance.ref(); '/ void main() => runApp(MyApp()); '/ void main() async { wait Firebase.initializeApp(pions: DefaultFirebaseOptions.currentPlatform,); class MyApp extends StatelesSWidget { class MyApp(Super.key)); class MyApp(Super.key); class MyApp(Super.Methodetotototototo</pre>	
Ŕ		21 static const String title = 'Sistem Informasi Mahasiswa': Outpute Analyzer Pub Commande Tests Tools Build Git History	99+
() 전 역		Get all from FlutLab - Discover Premium! Shortcuts Flutter 3.3	* 2

7. Scroll turun ke **class _LoginPageState**, dan tambahkan kode berikut tepat di bawahnya dan sebelum **@override**

```
Potongan Kode ______
final NIMControl = TextEditingController();
final PasswordControl = TextEditingController();
@override
void dispose() {
    NIMControl.dispose();
    PasswordControl.dispose();
    super.dispose();
}
```

Ŧ	FlutLab 💽 🤸 🔲 🛽	🛆 G 🍥 🗮 Sistem Informasi Mahasis	wa 🖉 🛛 🕞 😵 😤 Ĺ	þ 🔥
0 2 8	Explorer Stephorer Standard S	<pre>main.dartM x profile.dartA x repater.dart x </pre>	te():	
Ŕ	✓ Dependencies S_flutterfire_internals (1.2.0) Sasync (2.9.0) boolean_selector (2.1.0) characters (1.2.1) clock (1.1.1)	99 80verride Widget build(BuildContext context) { 10 return Scaffold(10 appBar(111e: Text(Sistem Informasi Mahasiswa') 10 return SchGrenzutz Tetta Tetta 10 return SchGrenzutz Tetta 10 retta 10 return SchGrenzut). Fait - Autoria -	- 09
ी 	☆ Flutter Outline to branch ✓ Analyzer Ready	Get all from FlutLab - Discover Premium!	Kit History Flutter Documentation Shortcuts Flutter 3.3	0

- 8. Kemudian turun kembali untuk menempelkan kontrol teks ke masing-masing widget. Perhatikan Kode dan Gambar berikut
 - (a) field **NIM**

F FlutLab 💽 🤸 🔲	⊡ & G ⊙ ≡	Sistem Informasi Mahasiswa 🧪	(Free) 🗇 A* 다 🔥
Explorer	main.dart M × pro	ile.dart A × register.dart ×	
Sistem Informasi Mahasisw		child: Image.asset("images/logo-ftik.png"))	D). // Container // C
Q > android		Padding(Water and a second seco
images		padding: EdgeInsets.symmetric(horizontal: 15),	Marries.
≥ > ios		child: TextField(
		decoration: InputDecoration(and the second sec
63 § firebase_options.dart		labelText: "NIM".	
C main.dart		hintText: "Masukkan NIM Anda"), // InputDecos	ration
o profile.dart		controller: NIMControl,	
register.dart			
> web		Padding(
, metadata		child: TextField(
analysis_options.yaml		obscureText: true,	
✓ Dependencies		decoration: InputDecoration(
S flutterfire internals (1.2.0)		border: OutlineInputBorder(),	
> async (2.9.0)		labelText: "Password",	Constant of the second s
> boolean_selector (2.1.0)		Container(inputDecoration // Te>
		La barreiro, EdesTerrete anductoro, 16 0, lefte, 16 0, nich	st: 16.0)
		margin: Edgeinsets.only(top: 10.0, feit: 10.0, righ	(, 10.0),

Potongan Kode

(b) field **Password**



9. Kini setiap field dapat ditarik datanya. Berikutnya tambahkan kode berikut di tombol **Login**. Perhatikan gambar dan kode berikut:



10. Tambahkan kode berikut untuk melakukan pengecekan login



11. Setelah itu di dalam tanda kurung kurawal dari **Snapshot**. Masukkan kode berikut

¥	FlutLab 💽 🤌 🔲 🗟	∆ G ⊙ ≡	Sistem Informasi Mahasiswa 🥒			<u>گ</u> + ۲	h 🔥
n	Explorer	main.dart M × profil	e.dart A × register.dart ×				
Q			//TODO Firebase Login String NIM = NIMControl.text;			Vice Vice	
<mark>گ</mark> وچ							
ŝ	firebase_options.dart main.dart M profile.dart A		.child(NIM) .get() .then((snapshot) { })				
	 vegister.dart test web metadata anshirin ontione yaml 		<pre>.catchError((error) {}); }, child: Text("Login", style: TextStyle(color:Colors.white, fontSize: 25</pre>				
	Dependencies Eutrafice interretie (1.0.0)	Outputs Analyz	er Pub Commands Tests Tools Build Git History				
	> async (2.9.0) > boolean_selector (2.1.0)						
Ŕ	> characters (1.2.1) > clock (1.1.1)						_0
-10- 12-10-	Flutter Outline Analyzer Beady		Get all from FlutLab - Discover Premium! Short	utter Docu	Flutter	ion ≈	



Ö P	☆ Flutter Outline lo branch ✓ Analyzer Ready			🞐 Get all from Flu	rtLab - Discov	er Premiun	n! ×		Shortcut	Flutter 3	
R		Outputs	Analyzer	Pub Commands	Tests	Tools	Build	Git History			
~	 > characters (1.2.1) 										
					1.1: 77 sn	ackBar	un secon				
	> _flutterfire_internals (1.2.0)				duration	Durati	ogin Gaga				
					SnackBar (1
	analysis_options.yaml				affoldMesse	enger.of	(context		lar 🕻		
	📄 .metadata								and and a second second		
					Material build	Pagekouli der: (co	e(ntext) =:	new Profil	ePage())).		- Armonar
					context,	00+-					Allow and a
				Na							and the second s
	💿 profile.dart										
	🔦 main.dart					: Duratio	on(secon	ds: 5),			
ŝ	🐚 firebase_options.dart				content:		ogin Berl				- Same
					SnackBar(enger .ori					-
2ع					Password ==	= dbPass) { (contoxt)				NECONAUX.
					De e en en el						10Marca

12. Kemudian di dalam kurung kurawal dari **catchError**, masukkan kode berikut

Ŧ Flu	itLab 💽 🧲 🗌	🛆 G 🧿	≡		Sistem Infor	maai Mahaajawa	,			۰.	\sim	
					oracent inform	nasi manasiswa 🧯			~	a'	ч 💊	
	piorer distances in Advances was android andro	main.dart M x 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 131 131 131 131 131 131 131 131	profile.dart A ×	register.dart × } els Sca S)))).catc ; child: Te "Login" style:	MaterialP build e { iffoldMesse inackBar(content: duration: duration: hError((er ext(, rextStyle(ageROULE(er: (context) nger.of(conte Text("Login (Duration(see ckBar ror) (),); ror) (),); color: • Cole	<pre>> new ProfilePage ext).showSnackBar(<u>Sagal")</u>, conds: <u>5</u>). prs.white, fontSize</pre>			al () () () () () () () () () () () () ()		
~ [> > *	Enterprise Spectra Sum Dependencies _flutterfire_internals (1.2.0) async (2.9.0) boolean_selector (2.1.0) characters (1.2.1) clock (1.1.1)	131 132 133 134 135 136 137 Outputs	TextE c Analyzer P	D)), // 1 Button(onPressed: ()) // TODO Fir Navigator.p context Materia ub Commands	rebase Regi ush(;, ilPagePoute Tests	ster (Tools Build	d Git History					991
≪ Ö PNobr	Flutter Outline			Get all from Flut	tLab - Discove	r Premium! >		Flutter Doc Shortcuts	umenta Flutte	ation 3	:	





13. Jalankan aplikasi dan cobalah login. Jika sukses, halaman akan berpindah ke **pro-**file.dart. Tetapi kosong.

¥	FlutLab 💽 🧲 🔲 🗟	🛆 G 🧿	≡	Sistem Informasi Mahasiswa	1	Free ⊗ ≗+ Ω 🔥
n	Explorer		profile.dart A × register	5-3-42		
⊔ ຊ	Staten Informasi Mahasiswa android images ins inses inses inses inses insesses, options.dart man dart M register.dart insesses register.dart vets web metudata analysis.options.yaml), // AppBar body: SingBech child: Colu children: 491 ())); // Column	← Profile Mahasiswa	t C C C C C C C C C C C C C C C C C C C	900
Ŕ	 > Dependencies > _flutterfire_internals (1.2.0) > async (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1) > clock (1.1.1) 	Outputs	Analyzer Pub Contem	Logn Berhasil	Run Git Histor	·
ŵ		= riutter wer	Get all from	n FlutLab - Discover Premium!		Flutter Documentation 🛠 📃
21	lo branch 🛩 Analyzer Ready					shortcuts Flutter 3.3 🗸 🛞 🧧

14. Berikutnya adalah mengisikan halaman Profile. Pertama hapus baris kode **const ProfilePage(super.key);**

m Informasi Mahasiswa rold ges firebase, options dart main dart register dart >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>		<pre>ProfilePage Const ProfilePage Const ProfilePageS Class _ProfilePageS Class _ProfilePageS Widget build() Widget Duild() </pre>	ge extends Page({supe tate creat ageState e BuildConte	<pre>statefulWidge ar.key}); teState() => _P extends State<p ext context) {</p </pre>	' <u>t {</u> 'rofilePage! 'rofilePage:					
roid ges firebase_options.dart main.dart profile.dart M register.dart		<pre>Pass ProfilePage Econst Profile @override _ProfilePageS } class _ProfileP @override Widget build()</pre>	<u>ge extends</u> Page({supe tate creat ageState e BuildConte	<pre>statefulWidge r.key}); teState() => _P extends State<p context)="" ext="" pre="" {<=""></p></pre>	rofilePage rofilePage					
ges firebase_options.dart main.dart profée.dart N register.dart		<pre>const Profile @override _ProfilePageS' } class _ProfileP @override Widget build()</pre>	Page({supe tate creat ageState e BuildConte	er.key}); teState() => _P extends State <p ext context) {</p 	rofilePage rofilePage					
firebase_options.dart main.dart profile dart N register.dart		<pre>@override _ProfilePageS } class _ProfileP @override Widget build() </pre>	tate creat ageState e BuildConte	teState() => _P extends State <p ext context) {</p 	rofilePage! rofilePage:					
firebase_options.dart main.dart profile.dart N register.dart		<pre>@veride _ProfilePageS } class _ProfileP. @overide Widget build()</pre>	tate creat ageState e BuildConte	teState() => _P extends State <p ext context) {</p 	rofilePage rofilePage					
firebase_options.dart main.dart profile.dart N register.dart		<pre>class _ProfileP. @override Widget build()</pre>	ageState e	extends State <p< td=""><td>rofilePage:</td><td>> {</td><td></td><td></td><td></td><td>;</td></p<>	rofilePage:	> {				;
main.dart profile.dart N register.dart		r class _ProfileP @override Widget build(N	ageState e BuildConte	extends State <p< td=""><td>rofilePage</td><td></td><td></td><td></td><td></td><td></td></p<>	rofilePage					
profile.dart N register.dart		class _ProfileP @override Widget build(M	ageState e BuildConte	extends State <p ext context) {</p 	rofilePage					
register.dart		@override Widget build(BuildConte	ext context) {						
		Widget build(BuildConte	ext context) {						
		nature Cash								
		recurn scar	fold(
metadata		appBar:	AppBar(
inslueie, ontione vami			: Text('Pr	rofile Mahasisw	ιa'),					
			ingleChild	dScrollView(
terfire_internals (1.2.0)			ld: Columr							
		child	ren: <widg< td=""><td>get>[</td><td></td><td></td><td></td><td></td><td></td><td></td></widg<>	get>[
		Pad	ding(
			adding: co	onst Edgelnsets	.all(20.0)					
	Outputs	Analyzer 🚺	Tools	Pub Commands	Tests	Build Git H				- 991
		yanaiyzei 😈	10013	i do cominando	10010	Our Our		Elutter Docume	ntation 🛠	
t k		erfire_internals (1.2.0) 22 s (2.9.0) 23 san_selector (2.1.0) 24 voters (1.2.1) 25 sc(1.1.1) 0utputs	effre_intensis (1.2.0) 2.2 child (2.9.0) 2.3 child s(2.9.0) 2.4 Pad ans.elector (2.1.0) 2.4 p. (1.1.1) 2.5 p. (1.1.1) 0.0tputs Analyzer 0	effre_internals(1.2.0) 22 child: Colum 2(2.9.0) 23 child: Colum an.selector(2.1.0) 24 Padding(sclers(1.2.1) 25 padding: columnian sclers(1.2.1) 26 child: Const (1.1.1) Outputs Analyzer Tools	effre_internals (1.2.0) 22 child: Column(s(2.9.0) 23 child: column(scassettor (2.1.0) 24 Padding(national scale (1.2.1) 25 child: Contact (1.1.1) 0 uputs Analyze () Toole Pub Commands	effe_internals (12.0) 22 child: Column(s(2.9.0) 23 child: column(an.selector (21.0) 24 Padding(wcters (12.1) 25 wild: constr vcters (12.1) 26 wild: constr vcters (12.1) 26 wild: constr vcters (12.1) 26 wild: constr	effe_internals(120) 22 child: Column(>:(2.0) 23 child: Column(>:(2.0) 23 child: Column(masketch(210) 24 Padding(padding; const EdgeInsets.all(20.0), child: Contex(child: Contex((11.1) Outputs Analyzer ①	erfer_internals(12.0) 22 child: Column(:(29.0) 23 particle (child: Column(:(29.0) 23 particle (child: column(:(29.0) 24 padding(padding: const EdgeInsets.all(20.0), :(11.1) 26 child: Contor(:(11.1) 0utputs Analyzer 1 Tools Pub Commands Tests Build Git History	erfer_internals(1:20) 22 (290) 23 (child:column(child:column(child:cens:thild:column(child:cens:thild:cens:thild:cens:thild:cens(padding: padding: const:tdgeInsets.all(20.0), child:censt:cens(child:censt:tdgeInsets.all(20.0), child:censt:tdgeIns	effe_internals (1.2.0) 2.2 child: Column(:(2.9.0) 2.3 child: Column(:(2.9.1) 2.4 Padding(masketch (2.1.0) 2.4 Padding((thild: Const EdgeInsets.all(20.0), child: Const EdgeInsets.all(20.0), (thild: Const C((thild: Const (thild:

15. Agar bisa menerima input data **NIM** dari **Login** ke **Profile**, masukkan kode berikut di **class ProfilePage**



16. Kembali ke main.dart, tambahkan baris kode builder: (context) => new Pro-filePage())); dengan kode berikut:



17. Kini data NIM bisa dikirimkan ke **profile.dart**. Buka file **profile.dart**, agar bisa melakukan kueri data, tambahkan kode berikut:

 Sebelum menambahkan kode untuk Text, tambahkan terlebih dahulu kode berikut untuk menarik data dari Firebase
 Potongan Kode

```
Potongan Kode
import 'package:firebase_database/firebase_database.dart';
final DatabaseReference _databaseReference = FirebaseDatabase.instance.ref();
finitian DatabaseReference _databaseReference = FirebaseDatabase.instance.ref();
```

19. Untuk melakukan kueri, Scroll Turun ke class _ProfilePageState extends State<ProfilePage>. Dan masukkan kode berikut tepat di bawahnya. Perhatikan Gambar dan Kode

```
Potongan Kode
Map<dynamic, dynamic> mappedData = {};
String NIM = "";
@override
void initState() {
    super.initState();
    NIM = widget.NIM;
    fetchData(NIM);
}
Future<void> fetchData(String NIM) async {
    final ref = _databaseReference.child("Mahasiswa").child(NIM);
    final data = await ref.get();
    setState(() {
        mappedData = data.value as Map<dynamic,dynamic>;
    });
}
```

Ŧ	FlutLab 🕟 web 🗸 🥠	🔲 🗟 G 🎯 🚍 Sistem Informasi Mahasiswa 🌶	(Free) 🗇 🕾 🏳 🔥
n	Explorer	profile.dart M 🗙 main.dart M 🗙	
			New York Control of Co
Q		15 <u>class _ProfilePageState extends State<profilepage></profilepage></u>	Tage of the second seco
		<pre>16 Map<dynamic, dynamic=""> mappedData = {};</dynamic,></pre>	
°,		17 String <u>NIM</u> = "";	<u> </u>
-0-		19 Poverride	
563	tirebase_options.dart	<pre>20 void initState() {</pre>	
	Contrain.uart M		Same
	S register dart	22 NIM = widget.NIM;	· · · ·
	📄 .metadata	26 Future <void> fetchData(String NIM) async {</void>	, and the second second
	✓ Dependencies	<pre>27 final ref = _databaseReference.child("Mahasiswa").child(NIM);</pre>	
		20 Filidi data - amait rei.get(), 29 setState(() /	
		30 mappedData = data.value as Map <dynamic, dynamic="">;</dynamic,>	
~			
R		33	
÷.	Flutter Outline	Outputs Analyzer Pub Commands Tests Tools Build Git History	ter Documentation 🛠 📃 📃
10	No branch 🛩 Analyzer Ready		ts Flutter 3.3 × ①

20. Berikutnya adalah mengisi tampilan **profile.dart**. Isikan kode di dalam **Widget**]

Ŧ	FlutLab 💽 🦩 🔲 🖪	& G ⊙ ≡	Sistem Info	masi Mahasiswa 🧪		ු පං ර 🗸
n	Explorer	main.dart × profile.dart ×				
ම ද 1	Sistem Informasi Mahasiswa J antrold mages los lo morease lo morease.oppons.diart mani.dart morelia dart repilate dart lost web metadata	10 Boverride 11 Widget build 12 return Sci 13 appaar 14 titl 15). 16 body: 19 20 20) 22 22	J(BuildContext context) { ffold(: AppBar(: AppBar(
		Outputs Analyzer	Pub Commands Tests	Tools Git History		:
Ŕ	 _flutterfire_internals (1.2.0) > async (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1) > clock (1.1.1) 	<i>≡ </i>	nformasi Mahasiswa" was succe	ssfully loaded.		
亞					S Flutter Docu	nentation 🕿 📃 🗾
P	No branch 🛩 Analyzer Ready		Set all from FlutLab - Discov	er Premium! X	Shortcuts	Flutter 3.3 ~ 💿 😐



22. Kemudian lanjut kode di atas dengan tampilan untuk NIM.



23. Tempel kode kembali untuk menampilkan ${\bf Nama}$



24. Tempel kembali untuk menampilkan ${\bf E}\text{-}{\bf Mail}$



25. Kode terakhir yang ditambahkan adalah **Update Profile** dan **Logout**. Letakkan kode setelah kode sebelumnya.

```
Potongan Kode _
Container(
    margin: EdgeInsets.only(top: 16.0, left: 16.0, right: 16.0),
    height: 50,
    width: 200,
    decoration: BoxDecoration(
        color: Colors.blue,
        borderRadius: BorderRadius.circular(15)),
    child: TextButton(
        onPressed: () {
            //TODO Update
        },
    child: Text(
        "Ubah Profil",
        style: TextStyle(color: Colors.white, fontSize: 25),
))),
```



Potongan Kode _

```
Container(
    margin: EdgeInsets.only(top: 16.0, left: 16.0, right: 16.0),
    height: 50,
    width: 200,
    decoration: BoxDecoration(
        color: Colors.blue,
        borderRadius: BorderRadius.circular(15)),
    child: TextButton(
        onPressed: () {
            //TODO Batalkan
            Navigator.pop(context);
    },
    child: Text(
        "Logout",
        style: TextStyle(color: Colors.white, fontSize: 25),
))),
```

¥	FlutLab 💽 web 🗸 🥠	080	G 🧿	≡	Sistem I	Informasi Mah	nasiswa 🥒		E	•• 🛇	å⁺	φ 🔥
•	Explorer		× register.da									
L Q		125 ·	Co))), // 1								
ر بو ش	> images > ios ~ lib © firebase_options.dart			<pre>margin: Edgel height: 50, width: 200, decoration: E color: </pre>	nsets.onl oxDecorat Colors.bl	y(top: 16 ion(ue.		: 16.0, right: 16.0				
	 main.dart profile.dart M register.dart > test > web metadata 			borderRac child: TextBu onPressec //TODO Navigat },	ius: Bord tton(: () { Batalkan or.pop(co	erRadius.c						
Ŕ	Dependencies flutterfire_internals (1.3.1) async (2.9.0) boolean_selector (2.1.0) characters (1.2.1) clock (1.1.1)			<pre>child: Ie "Logout style:))), // 1 // <widget>[] // Column // Sin</widget></pre>	xt(", TextStyle ext // Te ngleChildS	(color: C xtButton CcrollView	Colors.v // Conta // Scaf					
۵.	➢ Flutter Outline	Outputs	Analyzer	Pub Commands	Tests	Tools	Build	Git History	Flutter D	ocumen	tation ≈	
12	No branch 🗸 🛛 Analyzer Ready			🤟 Get all from I	lutLab - Disc	cover Premiu			Shortcuts	Flut	ter 3.3 🛩	0

26. Jalankan aplikasi dan tes

F	FlutLab 💿 web 👻 🥠 Explorer	G G Sistem Informasi Mahasiswa Imondert M ×	Free 🕹 🏦 🗘 🔥
	Sistem Informasi Mahasiswa Android Jinages Jios infabase.options dart mana nat M eroifie daat M eroifie daat yeb metadata vebendennies Jinterfere.internals (13.1) async (2.9.0) boolaan.selector (2.1.0) boolaan.selector (2.1.0) boolaan.selector (2.1.0)	14 class_ProfilePageState extends StatedProfilePage> { Mapcdynamic, dynamic> mappedData = (); String NLW = **; void initState() { superride void initState() { superride void initState() { superride void initState() { fetchbat(NLW); if etchbat(NLW); fetchbat(NLW); superride undambizandgemalicom Count final date = databaseReference.child("Mahasiswa").ch final date = data.value as Mapcdynamic, dynamic>; j; j; j;	
Ö	Flutter Outline Analyzer Ready	Outputs Analyzer Pub Commands Tests Tools Build Control Commands Tests Tools Build C	s Flutter 3.3 v 0

Bab 7

Praktikum 7

7.1 Operasi Update Data

7.2 Tutorial

1. Buka kembali projek di Flutlab

Ŧ		œG	, ⊙ ≡		Sistem Informasi M	ahasiswa 🥒			&+ ¢	
n	Explorer		rt × profile.dart							
ت چ ج	Sistem Informasi Mahasiswa Jandroid Janges Jios vib Getd dart Gradidat Gradidat Getdidat Getdidat Getdidat Jett Jett Jett Jett Jett Jett		<pre>import 'pack. import 'pack import 'edit final Databa class Profile <u>ProfilePag</u> final Strin @override _ProfilePag</pre>	ge:flutter/material ge:firebase_databas dart'; seReference _databas sPage extends Statef 2((required this.NIM g NIM; geState createState(.dart'; e/firebase_dat eReference = F <u>ulWidget {</u> });) => _ProfileP					
	~ Dependencies	Output	s Analyzer	Pub Commands 1	ests Tools	Git History				
Ŕ	 _flutterfire_internals (1.3.1) > async (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1) > clock (1.1.1) 	≓ ← Pr	oject "Sistem :							_ 00
101	Flutter Outline						S Flutter Do	cumentat	ion ≈	
	- Child			🖖 Get all from FlutL	ab - Discover Pren	nium! ×		_		

2. Buatlah satu file dengan nama **edit.dart**

Ŧ	FlutLab 🕑 🤞 🗌 🖨	& G ● ≡		Sistem Informa	si Mahasiswa 🥒			୍ଚ ଅ +		
n	Explorer	main.dart × profile.dart	× edit.dart ×							
Q										
••										
8										
÷										
	firebase_options.dart									
	orofile.dart									
	💊 register.dart									
		Outputs Analyzer	Pub Commands	Tests To	ols Git History					
	> _flutterfire_internals (1.3.1)	🖙 👉 Project "Sistem 🗄								
ം										
										99+
4						Flutt	er Docum	entation :	*	=
12	No branch - Analyzer Ready		Get all from Fit	ittab - Discover P	remium: X	Shortcut	ts F	lutter 3.3 ~		0

3. Kemudian masukkan kode berikut ke dalam file ${\bf edit.dart}$

```
Potongan Kode
import 'package:flutter/cupertino.dart';
import 'package:flutter/widgets.dart';
import 'package:firebase_database/firebase_database.dart';
final DatabaseReference _databaseReference = FirebaseDatabase.instance.ref();
```

-											
Ŧ			G 🧿	≡	Sisten	n Informasi Mahasiswa			🛇 २		
n	Explorer		dart × pr	rofile.dart M 🗙 🔤 edit.da							
ບ ເ	Sistem Informasi Mahasiswa Jandroid Jimages Ios Ios Vib édit dart é friebase, options dart é rorbiet dart é rorbiet dart é rojsiste dart J ses		import import import final	'package:flutte 'package:flutte 'package:fireba DatabaseReferenc	r/cupertino.dar r/widgets.dart' se_database/fir edatabaseRefe	t'; ; ebase_database <u>rence</u> = Firebas	dart'; eDatabase.instance.ref();				
Ŕ	✓ Dependencies Jutterfire_internals (1.3.1) Jasync (2.9.0) Sociean_selector (2.1.0) characters (1.2.1) > clock (1.1.1)	Outp	uts A	Analyzer Pub Com	mands Tests	Tools Git Hi	story				
쨘		= * I	Project "		ahasiswa" was succ			Flutter Docu	umentatio	n	P
1	No branch 🗸 🛛 Analyzer Ready				Discover Premi	um	Sho	rtcuts	Flutter 3.	3~ ()	0

4. Kemudian tambahkan kode berikutnya untuk widget



Ŧ	FlutLab 💿 🦸 🗌 🗟	@ G	⊚ ≡	Sistem	Informasi Mahasiswa 🥒		Free 🛇	&+ ¢	
1 2 8 8 8	Explore Stem Informasi Mehasiswa Jandroid Janagas Jos Statistica Mitogas Janagas Jana Statistica Mitogas Statistica Mitogas Statistica Mitogas Statistica Jest Jest	main.dart 1 2 3 4 5 6 9 9 10 11 12 13 14 15 16 17 18 19 Outputs	<pre>x profiledurt import 'pack import 'pack final Databaas final Databaas final Strin final Strin final Strin final Strin e0verride EditProfil e0verride widget buil Ambyzer</pre>	<pre>dx editariM x gg:Tutter/cupertino.dart gg:Tutter/dupertino.dart gg</pre>	'; base_database.dart'; widget { required this. <u>Nama</u> , r => _EditProfilePageSi ate <editprofilepage> Tools GriHestory</editprofilepage>	<pre>se.instance.ref(); required this.Email)); tate(); {</pre>			
岙		≡ 👉 Pro	ject "Sistem 1			6 Flutte	er Document	ation	P
22	No branch - Analyzer Ready			Discover Premiu	m	Shortcuts	Flutt	er 3.3 ×	0

5. Kemudian lanjutkan dengan kode **widget** seperti berikut:



- 6. Buka file **profile.dart**, dan tambahkan kode berikut untuk tombol **Ubah Profil**:
 - - builder: (context) => new EditProfil
 NIM: NIM,
 Nama: mappedData['nama'],
 Email: mappedData['email'])));

¥	FlutLab 💽 🗲 🔲 🗟	കദ	. ≡		Sistem Informasi Ma	ahasiswa 🥒	Free	⊗ ଥ⁺	¢ 🔨
n	Explorer		profile.dart N	edit.dart M ×					
و م لا	 ✓ Sistem Informasi Mahasiswa > android > images > ios ✓ lib 	118 119 120 121 122		child: TextButtor onPressed: () //TODO Unde Navigator.p context	(R te ush(
\$	edit.dart N firebase_options.dart main.dart profile.dart N register.dart test web			hild: Text("Ubah Profi	IrageRoute(lder: (context) NIM: NIM, Nama: mapped[Email: mapped]	<pre>c) => new_EditProfilePage(Data['nama'], Data['email']))); // Edit</pre>			
R	✓ Dependencies Jutterfire_internals (1.3.1) async (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1) > clock (1.1.1)	131 132 133 134 135 136 Outputs	Cr Analyzer	style: Text))), // Text ontainer(margin: EdgeInset height: 50, width: 200, Pub Commands Te	Style(color:) // TextButton s.only(top: 16 sts Tools	Colors.white, fontSize: ; // Containe: 5.0, left: 16.0, right: 16 Git History			
÷		≡ 👉 Proje	ct "Sistem Ir			oaded.	Flutter Docu	mentation a	* P
21	Io branch 🗸 🛛 Analyzer Ready			Discover	Premium		Shortcuts	Flutter 3.3 ~	0

7. Tes aplikasi untuk memastikan tombol berfungsi membuka halaman ${\bf Update~Pro-file}$

Explorer		profile.dart M 🗙 edit.dart	t M ×		
Sistem Informasi Mahasiewa Sindroid Sindroid Sindroid Sindroid Sidroid Sidroi		child: onP / / / / / / / / / / / / / / / / / / /	TextButtor ressed; c) Tool Junit avigator materia bui ld: Text(Ubah Profi	Analysis → → → → → → → → → →	Eage // Mater
✓ Dependencies →_flutterfire_internals (1.3.1) → async (2.9.0) > boolean_selector (2.1.0) → characters (1.2.1) > characters (1.2.1)	132 133 134 135 136 Outputs	())) Container(margin: height: width: Analyzer Pub Comm	EdgeInset 50, ands Te), right: 16.0), Git History	
Flutter Outline		Web Bootstrap: Auto			tter Documentation 余

8. Buka kembali file edit.dart, dan tambahkan kode berikut tepat di bawah class EditProfilePageState extends State<EditProfilePage> untuk memasukkan data ke State

Potongan Kode _

```
String NIM = "";
String Nama = "";
String Email = "";
@override
void initState() {
    super.initState();
    NIM = widget.NIM;
    Nama = widget.Nama;
    Email = widget.Email;
}
```

¥	FlutLab 💽 🤌 🔲 🛙	a 🛆 G	⊚ ≡		Sistem I	nformasi Mahas	iswa 🧨			Free	\$ (<u>گ</u> + ۲	h 🔥
	Control C	M 20 21 22 22 23 24 25 26 27 28 29 30	<pre>x profile dark k class _EditPr String Nama String Email @override void initSt super.ini NIM = wid Nama = wi Email = w } @override</pre>	<pre>> edit.dart M x ofilePageState = ""; = ""; } = ""; ate() { tState(); get.NIM; idget.Rma; idget.Email;</pre>	extends St		filePage>						
	 boolean_selector (2.1.0) boolean_selector (2.1.0) 		Widget buil	d(BuildContext	context) {								
R 恭	> clock (1.1.1)	Outputs	Analyzer	Pub Commands	Tests	Tools E	Build Git	History	S Flutte	r Docum	nentati	lon ☆	-
14	No branch ~ Analyzer Ready			D	iscover Premiur	n			Shortcuts		Flutter 3	3.3 ~	0

9. Berikutnya adalah menambahkan kode layout. Masukkan tepat di antara child: SingleChildScrollView()

₹ ۴	FlutLab 💽 🤸 🔲 🗟	@ G ⊙ ≡	Sistem Informasi Mahasiswa 🥒	Free 😂 💈	¥+ Ф <u>()</u>
□ ↓ [™] ⑧	Explorer Sastern informasi Mahasiswa > android > images > ios • io • io • io • ion • in ionit datt • profile datt • repiser cadet > test > veb	maindart x profile dark X x 33 return Cuperti 34 navigation 35 backgrownidelie: 37), // res 38 child: Signature 40) 41	edidartM_X noPageStfold(Mar: CupertinoNavigationBar(MarColor: @CupertinoColors.systemGrey, Text(Ubah Profile Mahasiswa!). Sett(Ubah Profile Mahasiswa!). SettinoPageBca gleChildScrollView()): // CupertinoPageBca		
้® ชั	 > Dependencies > _flutterfice_internals (1.3.1) > async (2.9.0) > boolean_selector (2.1.0) > characters (12.1) > clock (1.1.1) Flutter Outline binanch Analyzer Ready 	Outputs Analyzer Pu	b Commands Tests Tools Build Git History Discover Premium	Flutter Documentatil Shortcuts Plutter 3	
			Potongan Kodo		
child: C cros main chil),	olumn(sAxisAlig AxisSize: dren: <wio< th=""><th>nment: Cro MainAxisS dget>[],</th><th>ossAxisAlignment.s Gize.min,</th><th>tart,</th><th></th></wio<>	nment: Cro MainAxisS dget>[],	ossAxisAlignment.s Gize.min,	tart,	
₹ □ 2 2 2 8 8	FlutLab O * C C C C C C C C C C C C C C C C C C	Image C Image man action action action action action action	Sistem Informasi Mahasiswa entdartM ★ LidContext context) { noPageScaffold(vr: SupertinoRolors, systemGrey, xt('Ubah Profile Mahasiswa'), storesteresteresteresteresteresterestere	Free O J	
œ [°] &	Dependencies S-flutterfine_internals (1.3.1) async (2.9.0) boolean_selector (2.1.0) characters (1.2.1) clook (1.1.1) Flutter Outline	45 } 46 } 47 Dutputs Analyzer Pu	Commands Tests Tools Build Git History	Flutter Documentation	m * 📮

10. Jika sudah, tepat di dalam sintak
s $<\!\!\mathbf{Widget}\!>\!\![\mathbf{I}]$ masukkan kode berikut:



Potongan Kode

Padding(padding: EdgeInsets.symmetric(horizontal: 25, vertical: 25), child: CupertinoTextField(placeholder: NIM,)),



11. Tepat di bawahnya, tambahkan kode untuk **Nama** tepat setelah **koma**:





12. Tambahkan $\mathbf{TextField}$ untuk Email. Masukkan setelah tanda koma




13. Tambahkan **TextField** terakhir untuk **Password**. Masukkan setelah tanda **koma Potongan Kode**





14. Tes aplikasi kembali untuk melihat **progress**. Halaman **Ubah Profil** akan menampilkan data sebelumnya sebagai **Placeholder/Hint**

Ŧ	FlutLab 💽 🤌 🔲 🗔	∆ G © ≡	Sistem Informasi Mahasiswa 🥒	Free 🛇 왐 다 🔥
7 口 へ ぷ 総	Explore Sistem Informasi Mahasiswa > android > images > ios v lib edit dart M	main dart × profile.durt M × ecc 67 Padding 68 pad 68 pad 70 P 70 P 0 7 71 0 7 7 73 Padding 4	It dart M x register dart x	tical: 25), ************************************
	firebase_options dart	74 pad 75 chi 76 77 78 78 80	Manufalar Paramet	tical: 25).
Ŕ	 ✓ Dependencies >_flutterfire_internals (1.3.1) > asyne (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1) > clock (1.1.1) 	81 9 82 83 84 Outputs Analyzer Pub (= Loading app from service wo	ontrol.text; .ata = { Build <u>Run</u> C	Sit History I
۵ ۲	Flutter Outline Analyzer Ready	= Flutter Web Bootstrap: Auto	Discover Premium	Shortcuts Flutter 3.3 ~ 0

15. Setelah sukses, tambahkan kode untuk **Controller** masing-masing **TextField**. Letakkan tepat di bawah **void initState()**:

```
Potongan Kode
final NIMControl = TextEditingController();
final NamaControl = TextEditingController();
final EmailControl = TextEditingController();
final PasswordControl = TextEditingController();
```



- 16. Tempelkan masing-masing **controller** ke **TextField** nya

 - Nama TextField

🕻 FlutLab 💽 🥠 📘	6 & G	⊙ ≡	Sistem Informasi Mahasiswa 🧳		(Free) 🗇 음+ 다 🚺
Explorer		× profile.dart M × edit.dart M			_
Sistem Informasi Mahasisw J android Jimages Jos Vib Gedit dart Grofile dart Grofile dart Gegister dart Jiest Jiest	a 48 49 50 51 52 53 M 54 55 55 56 M 57 58 59 60 61	child: Cu placeho control), / co Padding(padding: child: Cu placeho control)), / co placeho control)), / co padding: child: Cu placeho placeho placeho	pertinolextField(der: NIW. ler: NIWControl, pertinorextField// Padding EdgeInsets.symmetric(horizonta der: Nama ler: NamaControl, pertinorextField// Padding EdgeInsets.symmetric(horizonta der: Enail,		
Dependencies flutterfire_internals (1.3.1) async (2.9.0) boolean_selector (2.1.0) characters (1.2.1) select(1.1.1)	62 63 64 65 66 Outputs)), // cu], // «Widget>[), // Column), // SingleChildSc); // CupertinoPageSc Analyzer Pub Commann	pertinoTextField // Padding] rollView affold Is Tests Tools Build	Git History	
A Electron Outline				S Flut	iter Documentation 🕿 🔽

• Email TextField

_ Potongan Kode _____



¥	FlutLab 💽 🧲 🔲 🖨	@ G	; 💿	🚍 Sistem Informasi Mahasiswa 🧪	Free 🛇 2+ 🗘 🔥
0 2 8	Explorer Statem Informasi Mataslowa android simages ios Ke dia dart Central dart Singeliter dart Sites Site			<pre>solitaarM x) (selitaarM x) placeholder: Nama, controller: Nama, controller: Nama, controller: Nama, controller: Nama, controller: Nama, controller: Nama, placeholder: Nama, controller: Nama, pading pa</pre>	All Million and All All All All All All All All All Al
Ŕ	> clock (1.1.1)	Output	ts	Analyzer Pub Commands Tests Tools Build Git History	
₫:			10T Rei	Since Design Charles	Documentation *

• Password TextField

F FI	lutLab 💽 🤌 🔲	ම අ	G ⊙ ≡	Sistem Informasi Mahasiswa 🥒	📧 🛠 ይ 🗛
ς Ε	Explorer		ain.dart 🗙 🗌 profile.dai	rt M × edit.dart M × register.dart ×	
	Sistem Informasi Mahasiswa			controller: NamaControl,	I I I I I I I I I I I I I I I I I I I
	> and old			Padding(ER.
2	> inages			<pre>padding: EdgeInsets.symmetric(horizontal: 25, vertical: 25),</pre>	
				child: CupertinoTextField(
				placeholder: Email,	
	edit.dart			controller: Emalicontrol,	
	Stirebase_options.dart			<pre>Dedding Dedding</pre>	
	s main.dart			raduing	
	o profile.dart			child: CupertinoTextEiald	
	🚫 register.dart			nlacebolder: "Masukkan Password"	
	> test			obscureText: true.	
	> web			controller: PasswordControl.	
	Dependencies				
	N. Rutterfini internale (1.0.1)			Padding(
	2_inditernite_internais (1.3.1)			padding: EdgeInsets.symmetric(horizontal: 25, vertical: 25),	
				child: Center(
	N hereigen enterter (* 173)				

Potongan Kode __

17. Agar NIM ditampilkan dalam bentuk **Teks** masukkan kode berikut di dalam fungsi **void initState()** Potongan Kode

NIMControl.text = NIM;

¥	FlutLab 💽 🤌 🔲 🖨	🗠 G 💿 🚍 Sistem Informasi Mahasiswa 🖌	(Free) 🕸 삼 수 ∧
7 Q 2 *	Explorer Statem Informasi Mahasiswa android Jons Informasi Mahasiswa Jons Informasi Mahasiswa Jons Informasi Mahasiswa Jons Informasi Mahasiswa Informasi Mathematika Informatika Informasi Informatika Informasi Mat	Immuniant:x profile durt M.x register dart M.x 19 String Nama = ""; 20 String Email = ""; 21 @override 22 wold initState() { 23 void initState() { 24 super-initState(); 25 NUM = widget.HNN; 26 NUM = widget.Email; 27 Email = widget.Email; 28 NUMcontrol.text = NUM;	
	> test > web > Dependencies >_flutterfire_internals (1.3.1) > async (2.9.0) > boolean_selector (2.1.0) > characters (1.2.1)	30 / / ////////////////////////////////	
۲ ۲	 clock (1.1.1) Flutter Outline 		ter Documentation 🛠 🗾
14		Discover Premium Shortcu	ts 🛛 🛛 🖓 🖉 🖉

18. Lalu matikan input dengan menambahkan kode berikut setelah **controller:** NIM-Control,



19. Tambahkan kode **Tombol** yang diletakkan satu level dengan **Padding Email**. **Potongan Kode**





20. Tambahkan **tombol** terakhir:



Flutter Do

21. Tes aplikasi lagi untuk melihat hasil keseluruhan antarmuka

Ŧ	FlutLab 💽 🧲 🔲 [a 4	S G	◎ ≡	Sistem Informa	asi Mahasiswa 🥒	Free	। 🛇 ४ म 🔨
ں م پ	Explorer Sistem Informasi Mahasiswa android images ios lb edit.dart frebase.options.dart main.dart profile.dart 			<pre>c profiledartM × get String Nama = ""; String Email = "" Goverride void initState() super.initState NIM = widget.N Nama = widget.N Email = widget. NIMControl text</pre>	It dart M × register dart × Ubah Profile Mahasiawa Matistocoa Abudin Mularia Hizare mularahizare@grail.come	+ 0 0 0 0 0 0 0		
	register dart test web Dependencies _flutterfire_internals (1.3.1) async (2.9.0)			final NIMControl final NamaControl final EmailContro final PasswordCon	Masukkan Password Ubah Profi Batal	();		
R	> boolean_selector (2.1.0) > characters (1.2.1) > clock (1.1.1)		Outputs Loading	Analyzer Pub (app from service wo		Build Run Git	t History	:
亞				Web Bootstrap: Auto			Flutter Docu	imentation 🛠 🗾
20	Io branch 🛩 🛛 Analyzer Ready				Discover Premium		Shortcuts	Flutter 3.3 🗸 🛛 💿 🔎

22. Bagian terakhir dari praktikum ini adalah menambahkan kode untuk melakukan update. Tambahkan kode berikut untuk tombol **Update Profil** di bagian **onPressed** ()





23. Lalu petakan variabel dalam bentuk ${\bf Map}$ dengan kode berikut





24. Jika sudah lanjutkan dengan kode **Query** seperti berikut



25. Untuk merespon keberhasilan Query, masukkan kode berikut tepat di dalam .then((value){})



26. Terakhir, untuk merespon kegagalan kueri. Masukkan kode untuk mengosongkan semua **TextField**. Masukkan di dalam kode .catchError((error) {});



27. Tes aplikasi



Bab 8

Praktikum 8

8.1 Operasi Delete Data

Di bagian ini mahasiswa diajarkan bagaimana mengunggah gambar melalui aplikasi, yang kemudian ditampilkan di halaman profile. Mahasiswa diwajibkan menyelesaikan Praktikum 7

8.2 Tutorial

1. Buka kembali projek di web **flutlab**. Buka kembali file **profile.dart**



2. Tambahkan satu tombol baru yang berfungsi untuk menghapus data, dan **Logout** ketika sukses.





3. Jalankan aplikasi untuk melihat hasil sementara aplikasi



4. Jika tombol sudah ditambahkan, berikutnya menambahkan variabel dan fungsi untuk menampilkan Kotak Dialog Konfirmasi dan Input Password. Masukkan kode tepat di bawah fungsi Future<void> fetchData (BUKAN DI DALAM-NYA).

```
Potongan Kode
final confirmController = TextEditingController();
bool _showDialog = false;
```

5. Untuk membangun **Dialog Konfirmasi**, lanjutkan kode di atas dengan kode berikut: Potongan Kode

```
void _openConfirmationDialog() {
    showDialog(
        context: context,
        builder: (BuildContext context) {
            return AlertDialog(
                title: Text('Dialog Konfirmasi'),
                content: TextField(
                    controller: confirmController,
                    decoration: InputDecoration(
                        labelText: 'Masukkan Password',),),
                    actions: [
                        TextButton(
                            onPressed: () {
                                Navigator.of(context).pop();
                                confirmController.clear();
                            },
                            child: Text('Batal'),),
                        TextButton(
                            onPressed: () {
                                //TODO Hapus
                            },
                            child: Text('Konfirmasi'),
),],);},);}
```

¥	FlutLab 🕑 🧲 🔲 🗟	🖎 G 💿 🚍 Sistem Informasi Mahasiswa 🖌	Free � & ₽ A 🔥
n	Explorer	main.dart × profile.dart M × edit.dart M ×	
	 Sistem Informasi Mahasiswa 	<pre>34 final confirmController = TextEditingController();</pre>	Eligibility and the second second
0		<pre>35 bool _showDialog = false;</pre>	and the second sec
~	💊 edit.dart 🛛 M		
22	Strebase_options.dart	<pre>37 void _openConfirmationDialog() {</pre>	
•	nain.dart		
562		39 context; context,	
~~~	💊 register.dart	40 builder: (BuildContext Context) {	· · · · · · · · · · · · · · · · · · ·
		41 title: Text('Dialog Konfirmasi')	8 <u></u>
		43 content: TextField(	
	📄 .metadata		Server
	analysis_options.yaml		
	pubspec.yaml	46 labelText: 'Masukkan Password',	- Henry and
			Contraction of the second seco
			- Charles
		49 TextButton(	
		50 onPressed: () {	
		51 Navigator.or(context).pop();	Aprese I
			, America 🚦
		54 child: Text('Batal').	·
		56 TextButton(	•
		57 onPressed: ()	
			•
Ŕ		bu Child: lext('Konfirmasi'),	
		Uutputs Analyzer Publiculations rests roots pullu Git history	- 991
ų.			Flutter Documentation
	te herenh an Analyzor Roady	Discours Dramium	Charles Element 2.2

6. Agar fungsi ini dapat menjalankan tugasnya, masukkan kode berikut tepat di bawah tulisan //TODO Hapus





7. Kemudian lanjutkan bagian bawah kode dari **String dbPass** = **data['password'];** dengan kode berikut:





8. Berikutnya adalah menambahkan kode error untuk bagian kode .catchError((error) {});



9. Bagian terakhir yang perlu ditambahkan adalah kode untuk **Tombol Hapus** itu sendiri

≡ 👉 Pro

⑥ Flutter Documentation ☆



Ŧ	FlutLab 🕑 🗲 🔲 🗟	🗠 G 🧕	) ≡	Sistem Informasi Mahasiswa 🥒	Free	$\otimes$	&• ¢	
	Explorer <ul> <li>Sistem Informasi Mahasiswa</li> <li>android</li> <li>&gt;images</li> <li>ios</li> <li>Ib</li> </ul>		profile.dart M	<pre>Child: Text(</pre>				
\$\$ 	© edit.dart © freibase_options dart © profile dart M © register dart M © register dart > test > web			<pre>height: 50, width: 200, decoration: BoxDecoration(</pre>				
R	✓ Dependencies     >_flutterfire_internals (1.3.2)     > async (2.9.0)     > boolean_selector (2.1.0)     > characters (1.2.1)     > clook (1.1.1)	242 243 244 245 246 } 247 } 248 Outputs	], ))); Analyzer	Style:     Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts/Texts			A STATE AND A	
·전: 12	☆ Flutter Outline No branch ✓ Analyzer Ready	<b>≓ (</b> r Projec	t "Siste	Get all from FlutLab - Discover Premium! X	Flutter Docun	nentati Flutter	on ☆ 3.3 ~	0

10. Jalankan aplikasi dan coba hapus user

T HULLAD ( Web V 7	□ 🖻 🕸 G 💿 ≡	Sistem Informasi Mahasiswa 🥒	📧 🛇 삼 🍳 🔥
Encloser           Statem Informats Mahasuwa           Statem Informats Mahasuwa           Statem Informats Mahasuwa           Statem Informats Mahasuwa           Statem Informats           Visit           Statem Informats           Visit           Statem Informats           Visit           Statem Informats           Statem Information           Visit           Statem Information           Statem Information </th <th>main dart x         profile dart M x           226         227           228         229           230         Contair           231         mar           232         hei           233         wit           234         dec           235         chi           234         dec           235         chi           234         dec           235         chi           234         1. // &lt;%           240         24           241         242           243         1. // &lt;%           244         1. // &lt;%           245         ))); // &lt;           246         ). // &lt;</th> <th>Profile Mahasawa     Ors.white, fontSize:     Ors.white, fontSize:     Ors.white, fontSize:     Orders.white, fontSize:     // Contrainer     // Contrainer     // Contrainer     Outers.white, fontSize:     // Contrainer     Outers.white, fontSize:     // Contrainer</th> <th>25), 5.0), sular(15)), // Boxter 25), Futter Documentation &amp; Futter 3.3 v ()</th>	main dart x         profile dart M x           226         227           228         229           230         Contair           231         mar           232         hei           233         wit           234         dec           235         chi           234         dec           235         chi           234         dec           235         chi           234         1. // <%           240         24           241         242           243         1. // <%           244         1. // <%           245         ))); // <           246         ). // <	Profile Mahasawa     Ors.white, fontSize:     Ors.white, fontSize:     Ors.white, fontSize:     Orders.white, fontSize:     // Contrainer     // Contrainer     // Contrainer     Outers.white, fontSize:     // Contrainer     Outers.white, fontSize:     // Contrainer	25), 5.0), sular(15)), // Boxter 25), Futter Documentation & Futter 3.3 v ()
Firebase     Project Overview     Project Stortcuts	Praktikum-MobileApp - Realtime Database Data Rules Backups Usage	Ctensions (11)	0 🖻 🛦 餐
Firebase  Project Overview  Project Austrusts  Project and an	Praktikum-MobileApp + Realtime Database Data Rules Backups Usage	& Extensions (NP)	0 6 * 4
	Praktikum-MobileApp + Realtime Database Data Rules Backups Usage GD https://praktikum-mobileapp.678bb	€ Extensions 🚥	<b>@ ₽ ▲ ﴿</b>
	Praktikum-MobileApp + Realtime Database Data Rules Backups Usage GD https://praktikum-mobileapp.678bb M Your security rules are defined as	Extension:      Extension:      Official site southeast 1.      Arebased atabase app public, so anyone can steal, modify, or delete data in your database	
Fricebase         Project Overview         Project downloads         Project downloads         Realtime Database         What's wwi         Extensions (im)         Functions (im)         Project downloads (im)	Praktikum-MobileApp •         Realtime Database         Data Rules Backups Usage         © https://praktikum-mobileapp-878bb         Your security rules are defined as         https://praktikum-mobileapp-87	Extensions      effault-rtdb.asia-southeast1.firebasedatabase.app public, so anyone can steal, modify, or delete data in your database	
	Praktikum-MobileApp -         Realtime Database         Data Rules Backups Usage         G> https://praktikum-mobileapp.678bb         A Your security rules are defined as         https://praktikum-mobileapp.67	Extensions      Extensions     Compared to the set of the set	
	Praktikum-MobileApp + Realtime Database Data Rules Backups Usage GD https://praktikum-mobileapp-678bb Your security rules are defined as https://praktikum-mobileapp-67	Extensions     Extensions     Extensions     Compared     Extensions     Compared     Extensions     Compared     Extensions     Compared     C	
▶       Firebase         Project Overview       ♦         Project Averview       ●         Project Averview       ●         Product categories       ●         Build       ●         Analytics       ●         Pronsee       ●	Praktikum-MobileApp + Realtime Databasse Data Rules Backups Usage C5 https://praktikum-mobileapp-67 https://praktikum-mobileapp-67	Extensions     E	
▶ Firebase         ▶ Projet Overview       ♥         Projet Averview	Praktikum-MobileApp + Realtime Database Data Rules Backups Usage CS https://praktikum-mobileapp-878 https://praktikum-mobileapp-87	Extensions () default ridb.asia-southeast1.firebasedatabase.app public, so anyone can steal, modify or delete data in your database Bab-default-rtdb.asia-southeast1.firebasedatabase.app/:mull	

11. Penghapusan sudah berhasil dan secara otomatis akun terhapus

## Bab 9

## Praktikum 9

### 9.1 Operasi File dengan Google Storage

Di bagian ini mahasiswa diajarkan bagaimana melakukan pemrograman untuk mengunggah data (seperti gambar) ke Google Storage. Mahasiswa diwajibkan untuk menyelesaikan Praktikum 8.

#### 9.2 Tutorial

- 1. Sebelum memulai melakukan pemrograman. Buka Projek **SIMA Mahasiswa** di **Flutlab** . Tambahkan **Akun** yang sudah dihapus dari **Praktikum 8**
- 2. Di bagian bawah Editor, terdapat Tab Pub Commands. Klik Tab tersebut

Ŧ		∆ G ⊙ ≡	Sistem Informasi Mahasiswa 🥒	📧 🛇 완 🗘 人
ی ج چ	Explorer Sistem Informati Mahasiswa 3 android 3 images 3 los 4 lob 4 edit dart 5 frebase_options dart 6 frebase_options dart	<pre>mendant X     import 'package:clickcounter/up     @nport 'package:flutter/materia     import 'package:flutter/mass_coref     import 'firebase_options.dart';     import 'repackage:fletbase_databa     import 'repister.dart';     import 'profile.dart'; </pre>	Loader.dart'; .dart'; .e/firebase_core.dart'; .e0firebase_database.dart'; .e0eferepre = EirebaseDatabase instance ref():	
	<ul> <li>Profile dart</li> <li>Profile dart</li> <li>Progister dart</li> <li>Puploader dart</li> <li>&gt; test</li> <li>&gt; web</li> </ul>	<ul> <li>Initial bacadasherererere enceuataba</li> <li>// void main() =&gt; runApp(MyApp()</li> <li>Euture-void&gt; main() async {</li> <li>WithgetsFluttereBinding.ensureI</li> <li>await Firpbase.initializeappi</li> </ul>	<pre>energy = rinebasevalausserinstante.en(); )): hitialized();</pre>	
Ŕ	<ul> <li>Dependencies</li> <li>&gt; flutterfire_internals (1.3.2)</li> <li>&gt; async (2.9.0)</li> <li>&gt; boolean_selector (2.1.0)</li> <li>&gt; characters (1.2.1)</li> <li>&gt; clock (1.1.1)</li> </ul>	Outputs         Analyzer         Pub Commands           pub add         pub get            FlutLab:\Alauddin_Maulana_Hirzan\Sistem	Tests Tools GitHistory pubrun pub cutdated pub search Informasi Mahasiswa> \$ flutter pub add	
찬 분	☆ Flutter Outline No branch ✓ Analyzer Ready	Discov	er Premium Shor	lutter Documentation $\Rightarrow$

3. Setelah itu klik tombol pub add untuk menambahkan depedency baru

Ŧ		🖎 G 🔘 🗮 Sistem Informasi Mahasiswa 🖌	Free 🛇 🏖 🗘 🚫			
□	Explorer	<pre>mamadurX import 'package:1rebase_core/1rebase_core.dart'; import 'rackage:framebase_database/irebase_database.dart'; import 'register.dart'; impo</pre>				
	<ul> <li>Dependencies</li> <li>_flutterfire_internals (1.3.2)</li> <li>&gt; async (2.9.0)</li> <li>&gt; boolean_selector (2.1.0)</li> <li>&gt; characters (1.2.1)</li> <li>&gt; clock (1.1.1)</li> </ul>	Outputs         Analyzer         Pub Commands         Tests         Tools         Git History           pub add         pub oget         pub run         pub outdated         pub search           © Fluttab:\Alauddin_Maulana_Hirzan\Sistem Informasi Mahasiswa> \$ flutter pub add         pub add         pub run         pub outdated         pub search	; )			
۵÷	☆ Flutter Outline No branch → Analyzer Ready	Biscover Premium Shortcuta	r Documentation ☆			

4. Di bawah nya ada tulisan **flutter pub add**. Tambahkan kata **file_picker** setelah perintah itu. Sehingga **perintah** menjadi **flutter pub add file_picker**. Lalu **Tekan Enter** 

Ŧ FlutLab 💿 🖌 📋 🛱		Sistem Informasi Mahasiswa 🥒	(Free) 😞 옵+ 🗘 🔥
Explorer     Sistem Informasi Mahasiswa     Sandroid     android     andr	<pre>Import firebase_option import firebase_option import 'package:firebase import 'package:firebase import 'profile.dart'; import 'profile.dart; import 'prof</pre>	<pre>se_core/firebase_core.dart'; ns.dart'; se_database/firebase_database.dart'; ; e_databaseReference = FirebaseDatabase.instanc pp(WyApp()); ync { _sensureInitialized(); alizeApp( _shaseDatoms_currentPlatform</pre>	e.ref();
Sheep Adencies     S_flutterfrie_internals (1.3.2)     saync (2.9.0)     boolean_selector (2.1.0)     clock (1.1.1)	Outputs         Analyzer         Pub Comm           pub add         pub get         pub get           Image: State of the state	manda Tests Tools Git History           pub run         pub outdated           Fluttab: vAlauddin_Maulana_Mirzan\Sistem Informasi Mah           un "pub get" command	pub search
		Discover Premium	Shortcuts Flutter 3.3 × (2)

5. Setelah itu, tekan tombol **pub get** untuk mengunduh semua kebutuhan **depen-dency** 

¥	FlutLab 💽 🗲 🔲 🗟		Free 🛇 🏖 🏳 🔥
<b>□</b>	Explorer > Sittem from task hastewa > android > images > los > los Checked and Checked and State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State Stat	<pre>reasonary x</pre>	
	<ul> <li>&gt; Dependencies</li> <li>&gt; _flutterfire_internals (1.3.2)</li> <li>&gt; asyne (2.9.0)</li> <li>&gt; boolean_selector (2.1.0)</li> <li>&gt; characters (1.2.1)</li> <li>&gt; clock (1.1.1)</li> </ul>	pub add     pub get     pub nun     pub outdated     pub search       Running "flutter pub get" in fluttab:\Alauddin_Maulana_Hirzan\Sistem Informasi Mahasiswa>       Process finished successfully	
전 문	☆ Flutter Outline lo branch ∨ Analyzer Ready	Discover Premium Shorts	utter Documentation *

6. **Dependency** yang dibutuhkan sudah siap. Berikutnya membuat satu file dengan nama **uploader.dart** 

Ŧ		🖎 G 💿 🚍 Sistem Informasi Mahasiswa 🖍	⊗ &+ Ω 🔥
n	Explorer		
a		4 import 'firebase_options.dart'; 5 import 'package firebase database (firebase database database database)	
		6 import 'register.dart':	<u> </u>
şe			
-			
£ў3	Sedit.dart	<pre>9 final DatabaseReference _databaseReference = FirebaseDatabase.instance.ref(); 10</pre>	
	main dart		
	s profile dart		and the second sec
	register.dart		Party and the second se
		14 WidgetsFlutterBinding.ensureInitialized();	Marine -
		16 ontions: DefaultFirebaseOntions currentPlatform	Margan and a
		Outputs Analyzer Pub Commands Tests Tools Git History	
		pub add         pub get         pub run         pub outdated         pub search	
		🕅 Running "flutter pub get" in FlutLab:\Alauddin Maulana Hirzan\Sistem Informasi Mahasiswa>	
		✓ Process finished successfully	
Ŕ	> characters (1.2.1)		
4			
21	No branch 🛩 Analyzer Ready	Discover Premium Shor	tcuts Flutter 3.3 🗸 🕐 🍙

- 7. Jika sudah, tambahkan kode di dalam file ${\bf uploader.dart}$  dengan kode berikut
  - Bagian Import

```
import "package:flutter/material.dart";
import 'package:file_picker/file_picker.dart';
```

_		-			
7	FlutLab 🕑 🦩 🗌 🖪	- G • ≡	Sistem Informasi Maha	siswa 🖊	· · · · · · · · · · · · · · · · · · ·
<b>ロ</b> ス ポ 歌	Explorer    Stein Informasi Mahasiswa  android  magas  los  los  los  los  los  los  los  l	Imanotor v epicotoriorray import <u>package:file.picker</u> import <u>package:file.picker</u>	erial.dart"; /file_picker.dart';		
		Outputs Analyzer Pub Commands	Tests Tools	Git History	
Ŕ	✓ Dependencies     S_flutterfire_internals (1.3.2)     Saync (2.9.0)     boolean_selector (2.1.0)     > characters (1.2.1)     > clock (1.1.1)	pub add     pub get       Image: Running "flutter pub get" in Flutter       ✓ Process finished successfully	b:\Alauddin_Maulana_Hirz	puboutdated pubseard	
亞					Flutter Documentation
12	No branch 🛩 Analyzer Ready		Discover Premium	Sh	ortcuts Flutter 3.3 🗸 💿 🛑

• Bagian Stateless Widget



F FlutLab 💿 🥖 🗌 🖪	🙆 G 🖲 🗮 Sistem Informasi Mahasiswa 🖉	📧 🛇 완 🇘 🔨
C Explorer Sistem Informasi Mahasiswa A android	<pre>[mmsdarx   using#cantl x] 1 import 'package:filuter/matorial.dart"; 2 import 'package:file_picker/file_picker.dart';</pre>	
	<pre>4 class UploaderPage extends StatefulWidget { 5 const UploaderPage(super.key}); 6 @override</pre>	
Egg edit.dart     firebase_options.dart     main.dart     profile dart		
register.dart		
	Outputs Analyzer 3 Pub Commands Tests Tools Git History	
✓ Dependencies     ✓_flutterfire_internals (1.3.2)     × saync (2.9.0)     × boolean_selector (2.1.0)     × characters (1.2.1)     × clock (1.1.1)	pub add pub get pub nn pub oudded pub sear Running "flutter pub get" in FlutLab:\Alauddin_Maulana_Hirzan\Sistem Informasi Mahasiswa> Process finished successfully	ch
参 Flutter Outline		Flutter Documentation 🛠 📃

```
• Bagian Stateful Widget + Fungsi Pick
                             Potongan Kode
  class _UploaderPageState extends State<UploaderPage> {
      Future<void> pickFile() async {
          try {
               FilePickerResult? result = await FilePicker.platform
                   .pickFiles(type: FileType.custom,
                           allowedExtensions: ['jpg', 'png']);
               print(result);
          } catch (error) {
               print(error);
          }
      }
      @override
      Widget build(BuildContext context) {
          return Scaffold(
          appBar: AppBar(title: Text("Pengunggah Gambar")),
          body: Column(
              children: [
                   TextButton(
                       onPressed: () {
                           // TODO Firebase Pick and Upload
                           pickFile();
                       },
                       child: Text("Ambil dan Unggah",
                           style: TextStyle(color: Colors.blue,
                           fontSize: 15)))
               ],
          ),
          );
      }
  }
```



8. Kode dasar sudah disiapkan. Langkah berikutnya adalah menyambungkan halaman

Profile ke Upload ini. Buka file profile.dart dan tambahkan kode import. Potongan Kode

port 'uploader.c	lart';
FlutLab       Image: Control of the second sec	C G C = reference of the second state of the
	<pre>1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</pre>
:∅:	Outputs Analyzer Pub Commands Tests Tools Git History 🎯 Flutter Documentation 🖈 🗾

9. Berikutnya cari **Padding** untuk **Flutter Logo** (Lihat Gambar), dan tambahkan kode berikut:



10. Jalankan aplikasi untuk mengetes hasil saat ini.



11. Kode saat ini belum tersambung ke halaman **uploader.dart**. Untuk menyambungkan kode ini, tambahkan kode berikut tepat di bawah // **TODO Buka Halaman Upload** dari kode sebelumnya



12. Uji aplikasi lagi untuk memastikan tombol bisa berpindah halaman

FlutLab 💽 🦩 🔲	🗈 🛆 G 🤇		Sistem In	ormasi Mahasiswa 🥒			\$ 8	\$+ ¢	
Explorer		uploader.dart M × profile.da							
							$\oplus$	And American	
					Pengunggah Gambar	No.	0		
		TextButton(			Ambil dan Unorah		1 m	And a state of the	
≻ios	134 💡				Junior Gan Onggan		$\odot$		
edit dart		Navigat						100	
S firebase ontions dart									
main dort		Mat	arialDagaDouto				55	- 25m	
			se const with	the constructor	to				
							U		
egister.dart		child: Te	<t("upload gamb<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td></t("upload>						
o uploader.dart			: TextStyle(co.	or: OColors.blue	itere				
		Padding(							
		padding	const EdgeInse	s.all(10.0),					
		child: C6	Lumn(						
		CTOSSAX		ossaxisalignment.	st			-	
>_flutterfire_internals (1.3.2)		Tovt	"NTM" style: 1					S.	
		Sized	Roy(		in a start a st			- Care	
		hei	abt: 1						
		Conta	iner(					Jan	
	Outputs	Analyzer Pub Command	ls Tests	Tools Build	Run Git Histo	ter Docum	nentatio	n ¢	

13. Jika halaman berikutnya berhasil muncul, berikutnya adalah memperbaiki tombol tersebut. Buka file **uploader.dart**, ganti baris kode yang ada di gambar dengan kode berikut:





- 14. Berikutnya menambahkan akses ke Database dengan kodeebrikut
  - Kode Import

```
Potongan Kode
import 'dart:io';
import 'dart:typed_data';
import 'package:flutter/foundation.dart' show kIsWeb;
import 'package:firebase_database/firebase_database.dart';
import 'package:firebase_storage/firebase_storage.dart';
```



• Tambahkan kode akses database tepat di bawah **import** 

al Firebas	seStorage _s	torage = FirebaseStor	age.instance;
FlutLab 💽 🦩 🔲 🖻	_ G (0) ≡	Sistem Informasi Mahasiswa 🥒	Free) 🛇 완 다. 🔥
Explorer  Sandroid Sa	<pre>max.det % uploaderdant %     import "package:flutt     import 'package:filet     import 'dart:lo?;     import 'dart:lo?;     import 'dart:lo?;     import 'package:fireb     import 'package:fireb     final DatabaseBeferen     final DatabaseBeferen     final DatabaseBeferen     final DitabaseBeferen     final DitabaseBeferen</pre>	<pre>pr/material_dart"; iicker/file_picker.dart'; ta'; rr/foundation.dart' show kIsWeb; sse_database(irebase_database.dart'; sse_storage/firebase_storage.dart'; cs_databaseReference = FirebaseDatabase.instance.ref(); _storage = FirebaseStorage.instance; kends StatefulWidget { (super.key); :reateState() =&gt; _UploaderPageState();</pre>	
<ul> <li>Dependencies</li> <li>Internals (1.3.2)</li> </ul>	Outputs Analyzer Tools	Pub Commands Tests Git History	E
> async (2.9.0) > boolean_selector (2.1.0) > clock (1.1.1)	≓ <b>d</b> Project "Sistem Informasi	lahasiswa" was successfully loaded.	<b>~</b> ®
			lutter Documentation 🚓

15. Jika kode atas sudah selesai, berikutnya adalah mengubah fungsi **pickFile()** yang ada di dalam kode **Stateful Widget**. hapus kode **print(result)**;

🎐 Get all from FlutLab -

¥	FlutLab 💽 🧲 🔲 🖨	œG	⊙ ≡		Sistem I	nformasi Mahasiswa 🍃	1				åt		A
n	Explorer		× uploader.dart	M 🗙 🗍 profile.dart M									
												NAL-	
Q						<uploaderpage> {</uploaderpage>					20		
ہ ج	> images > ios • lib • edit.dart • firebase.options.dart • main dart • profile.dart • register.dart • uploaderi dart • M		<pre>Future<void>     try {         FilePick         FilePick         print(re         catch (e         print("E         }     } }</void></pre>	<pre>pickFile() as erResult? resu kEiles(type: F sult); rror) { rror");</pre>	ync { lt = await ileType.cu	FilePicker.plat							
			@override Widget build	(BuildContext									
	<ul> <li>Dependencies</li> <li>_flutterfire_internals (1.3.2)</li> <li>&gt; async (2.9.0)</li> <li>&gt; boolean_selector (2.1.0)</li> </ul>		appBar: body: Co childr Cent	AppBar(title: lumn( en: [ er(		unggah Gambar"))							
R	> characters (1.2.1) > clock (1.1.1)			ild: Container margin: Edge height: 50,	( Insets.onl	/(top: 16.0, lef	t: 16.0, right: 1	5.0),					0
ų.		Outputs	Analyzer	Pub Commands	Tests	Tools Build	Git History	Flutt	er Docu	menta	tion ☆		Ð
	and the state of the state of the state				la a succe Descenden	-		Ch	-	The states	- 2.2	-	

16. Ganti dengan kode berikut





17. Bagian terakhir adalah menambahkan fungsi ke ${\bf Tombol}.$  Tambahkan kode berikut tepat di bawah kode //TODO Pilih dan Unggah

//TODO Pilih dan Unggah pickFile();

¥	FlutLab 💽 🤸 🔲 🛛		G 🧿	≡		Sistem	Informasi Ma	ahasiswa 🥢	,		Free	♦	&• ¢	
n	Explorer				caffold(								and the second s	
	<ul> <li>Sistem Informasi Mahasiswa</li> </ul>			appBar	: AppBar(title:	Text("Peng	unggah G	ambar"))						
0				body	Column(									
				Ce	onter(									
°2														
-					margin: Edge			6.0, lef	t: 16.0, right:	16.0 <mark>)</mark> ,				
鐐	💊 edit.dart													
	Sirebase_options.dart													
	💿 main.dart				decoration:	BoxDecorat								
	💿 profile.dart				color:	Colors.bl	ue,							
	🔦 register.dart				border Ra	ulus: bord	erkadius							
					child: Texte									
	> test													
					pickFi	le();								
						ext(								
	_flutterfire_internals (1.3.2)					dan Ungga								
						TextStyle		■Colors						
R														
										Elur	tter Docu	montat	ion 🌣	91
Q:		Outp		Analyzer	Pub Commands	Tests	Tools	Build	Git History		aler Docul	nentat	011-2	
			_									1774 A.A.		

18. Jika sudah, konfigurasikan Google Storage dengan membuka https://console. firebase.google.com/. Buka Projeknya, lalu cari Google Storage

🐌 Firebase	Praktikum-MobileApp 👻	9 🖻 🌲 餐
Storage	Praktikum-MobileApp Spark plan	
Product categories Build	🗰 3 apps 🕪 😑 SIMA 🛛 + Add app	
** Authentication	Build	
App Check		
🛜 Firestore Database	Realtime Database	
🚍 Realtime Database	Downloads (7d total)	Storage (current)
Section Extensions	40.7KB -40%	102B -71.5%
🖿 Storage 🔼	52.6K	358
S Hosting		
() Functions		
😟 Machine Learning	26.38	179
J⊒ Remote Config		
Spark Upgrade No-cost \$0/month	Jun 2. Jun 3. Jun 4. Jun 5. Jun 6. Jun 7. Jun 1	8 Jun 2 Jun 3 Jun 4 Jun 5 Jun 6 Jun 7 Jun 8 — This week – Last week
<		

#### 19. Klik Get Started



20. Pilih Test Mode, lalu klik Next



21. Pilih lokasi, dan klik **Done** 

🖕 Firebase	Praktikum MebileApp + 🛛 🖉 🛱 🌲 👔
🚖 Project Overview 🛛 🌣	Set up Cloud Storage
Project shortcuts  Realtime Database	Secure rules for Cloud Storage     Set Cloud Storage location
Storage	Your location setting is where your default Cloud Storage bucket and its data will be stored.
Product categories Build	After you set this location, you cannot change it later. This location setting will also be the default location for Cloud Firestore.
Release & Monitor 🛛 🗸	Learn more 🛛
Analytics 🗸	Cloud Storage location
Engage 🗸 🗸	asia-southeast1
All products	Note for Cloud Functions customers: Deploying a function to this location is not yet available. If your function and Storage bucket are in different locations, you could potentially experience increased latency and billing costs. Learn more [2]
Spark Upgrade	Bizer Plan customers can choose other locations for additional buckets <u>circle knew to upgrade</u> Cancel Done
<	How do I get started? View the docs

22. Google Storage sudah siap digunakan

峇 Firebase	Praktikum-MobileApp 👻	0 🖻 🔺 餐
A Project Overview	Storage	
	Files Rules Usage 😻 Extensions 🚥	
🚍 Realtime Database 🔁 Storage	Protect your Storage resources from abuse, such as billing fraud or phishing Configure App Check	×
	GD gs://praktikum-mobileapp-878bb.appspot.com	🛨 Upload file 📑 🗄
Bulld	Name Size Type	Last modified
Release & Monitor 🛛 🗸 🗸		
Analytics 🗸	There are no files here yet	
Engage v		
III All products		
Spark Upgrade No-cost \$0/month		
<		

23. Tes aplikasi dengan mengupload gambar, dan Tunggu (Membutuhkan waktu agak lama hingga proses upload selesai)



24. Cek **Google Storage** untuk melihat hasil unggahan. Gambar disimpan dalam format waktu yang ditentukan otomatis oleh Flutter

📙 Firebase	Praktikum-MobileApp 👻			0 8 4	
📅 Project Overview 🛛 🔅	Storage				
	Files Rules Usage 🕏 Extensions 💷				
🚍 Realtime Database					
Storage	GD gs://praktikum-mobileapp-878bb.appspot.com > images		1	Upload file 🛛 🗈	1.1
	Name	Size	Туре	Last modified	
Build Y	1686455611887.jpg	169.9 KB	application/octet- stream	Jun 11, 2023	
Release & Monitor V					
Analytics ~					
Engage 🗸 🗸					
All products					
Spark Upgrade No-cost \$0/month					