

# Http Requests

Interacting with Web Servers

# What's In This Section?

Storing Data & Http

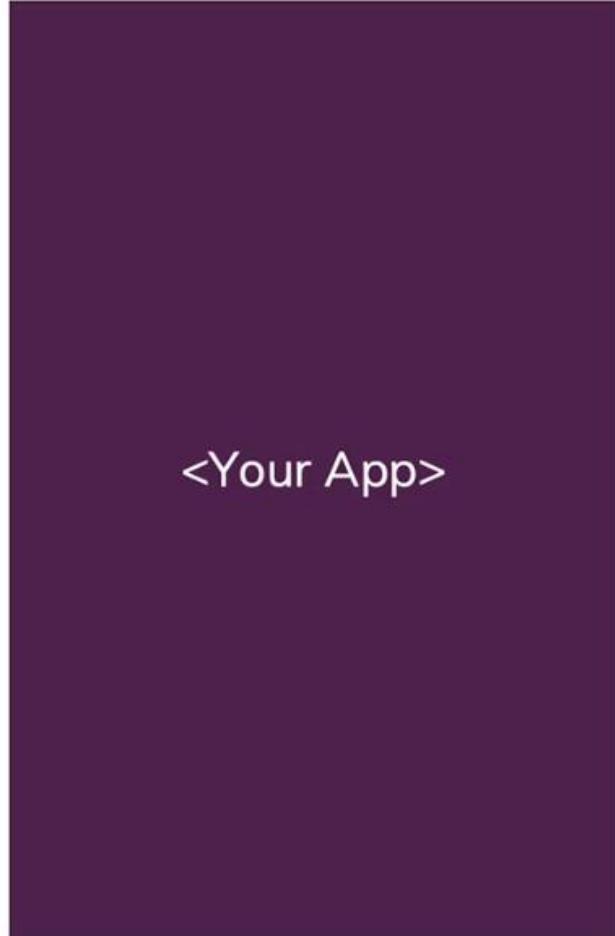
Sending Http Requests (Store + Fetch Data)

Showing Loading Progress

Handling Errors

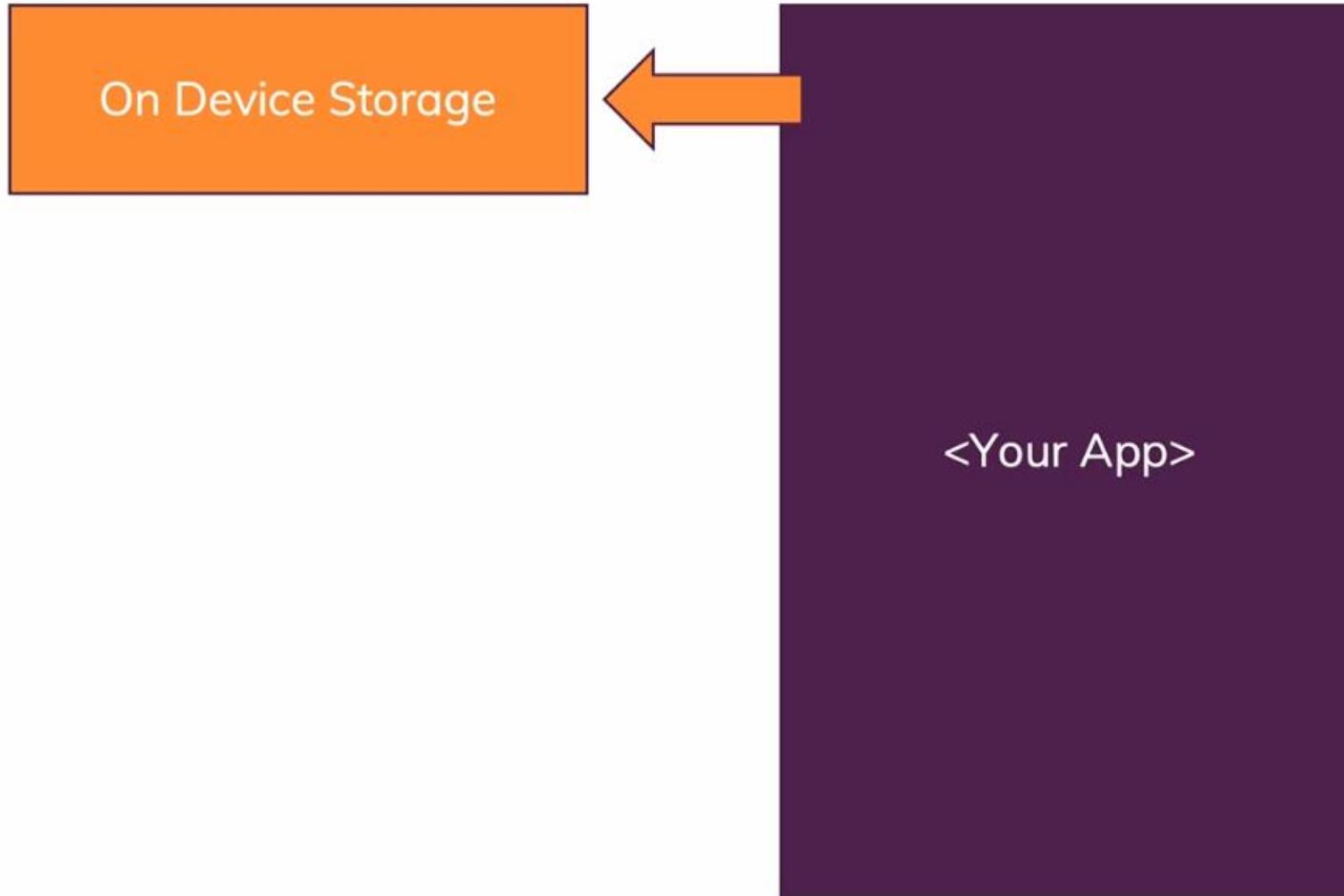
# **ON-DEVICE VERSUS WEB STORAGE**

# **Storing Data**



<Your App>

# Storing Data



# Storing Data



# Storing Data

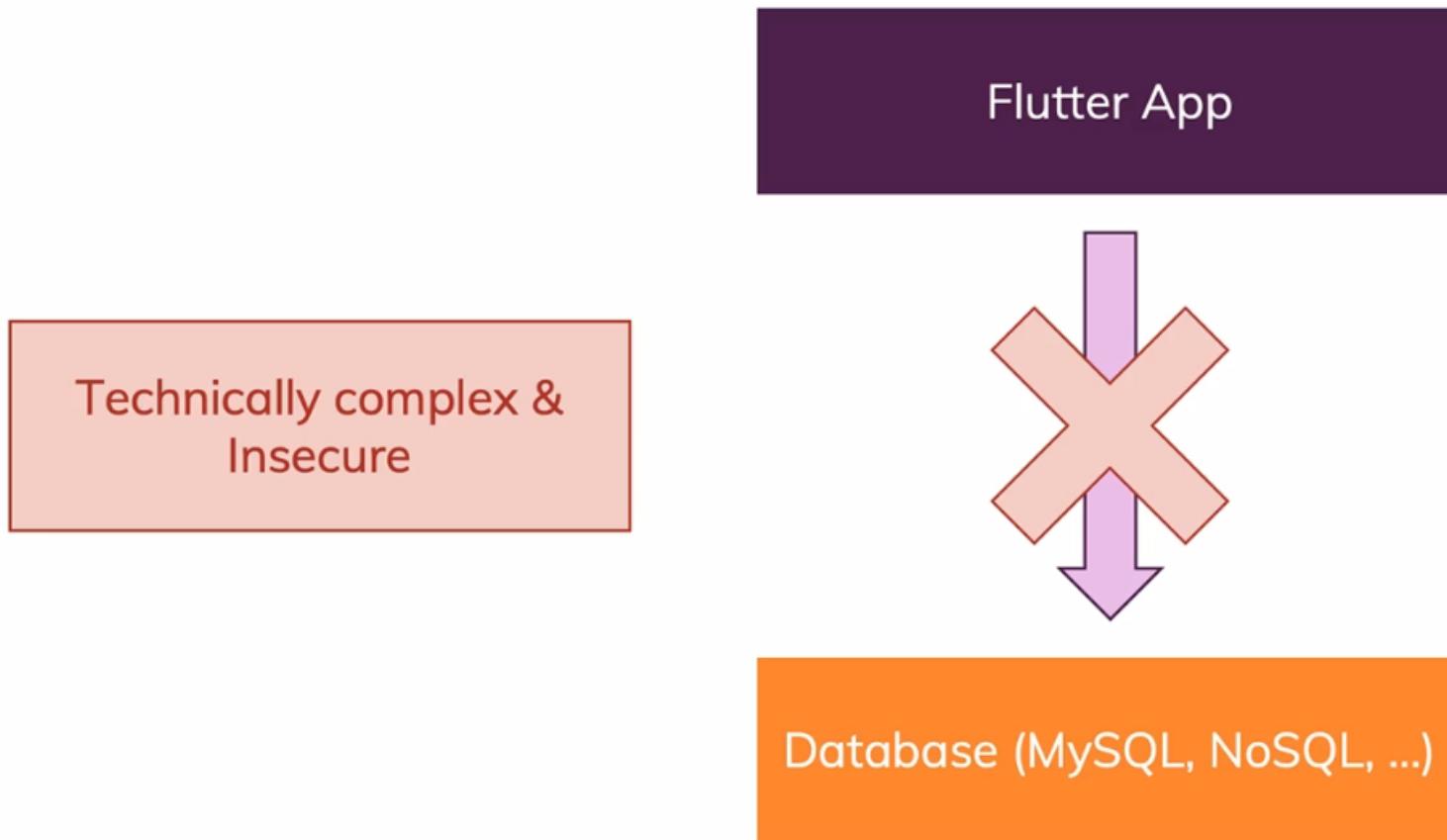


# Storing Data

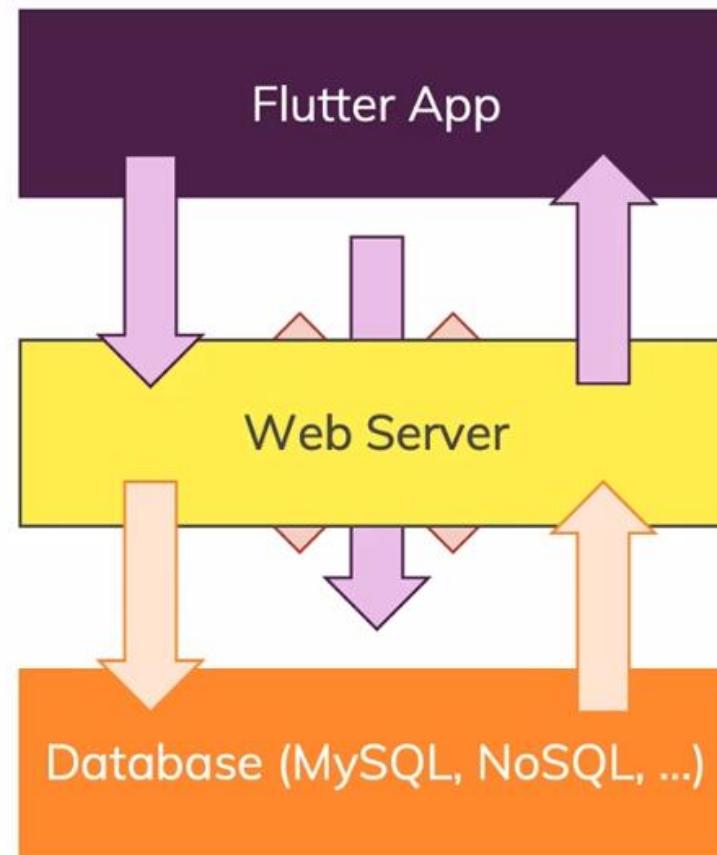


# **HOW TO CONNECT FLUTTER TO A DATABASE**

# Connecting Flutter to a Database



# Connecting Flutter to a Database



# **PREPARING THE BACKEND**

Firebase

https://firebase.google.com

Firebase

Products Use Cases Pricing Docs Community Support

Search English Go to console

Catch up on everthing we announced at this year's Firebase Summit. [Learn more](#)

# Firebase helps you build and run successful apps

Backed by Google and loved by app development  
teams - from startups to global enterprises

[Get started](#)

[Try demo](#)

[Watch video](#)



The screenshot shows the Firebase console homepage. At the top, there's a header bar with the title "Firebase console" and a URL "https://console.firebaseio.google.com/u/0/". On the right side of the header are icons for "Go to docs", a bell for notifications, and a user profile picture with a red notification badge containing the letter "b".

The main area is titled "Your Firebase projects". It features a large white button with a blue plus sign and the text "Add project". To its right is a project card for "belajar-ionic-angular" by "belajar-ionic-angular". Below these are two promotional sections: "Explore a demo project" (with an Android and iOS icon) and "Firebase projects are containers for your apps" (with a diagram showing a central box connected to various icons for Real-time Database, Analytics, Functions, Cloud Storage, and Cloud Firestore).

Firebase console

https://console.firebaseio.google.com/u/0/

Create a project (Step 1 of 3)

Let's start with a name for your project<sup>?</sup>

Project name

belajar-flutter

belajar-flutter-61e82

Continue

A blue-toned illustration of two people working together. A woman in a yellow shirt is seated at a desk, looking at a laptop screen. A man in a dark suit and glasses stands behind her, holding a smartphone up. They appear to be collaborating on a project.

Firebase console

https://console.firebaseio.google.com/u/0/

Create a project (Step 2 of 3)

## Google Analytics for your Firebase project

Google Analytics is a free and unlimited analytics solution that enables targeting, reporting, and more in Firebase Crashlytics, Cloud Messaging, In-App Messaging, Remote Config, A/B Testing, Predictions, and Cloud Functions.

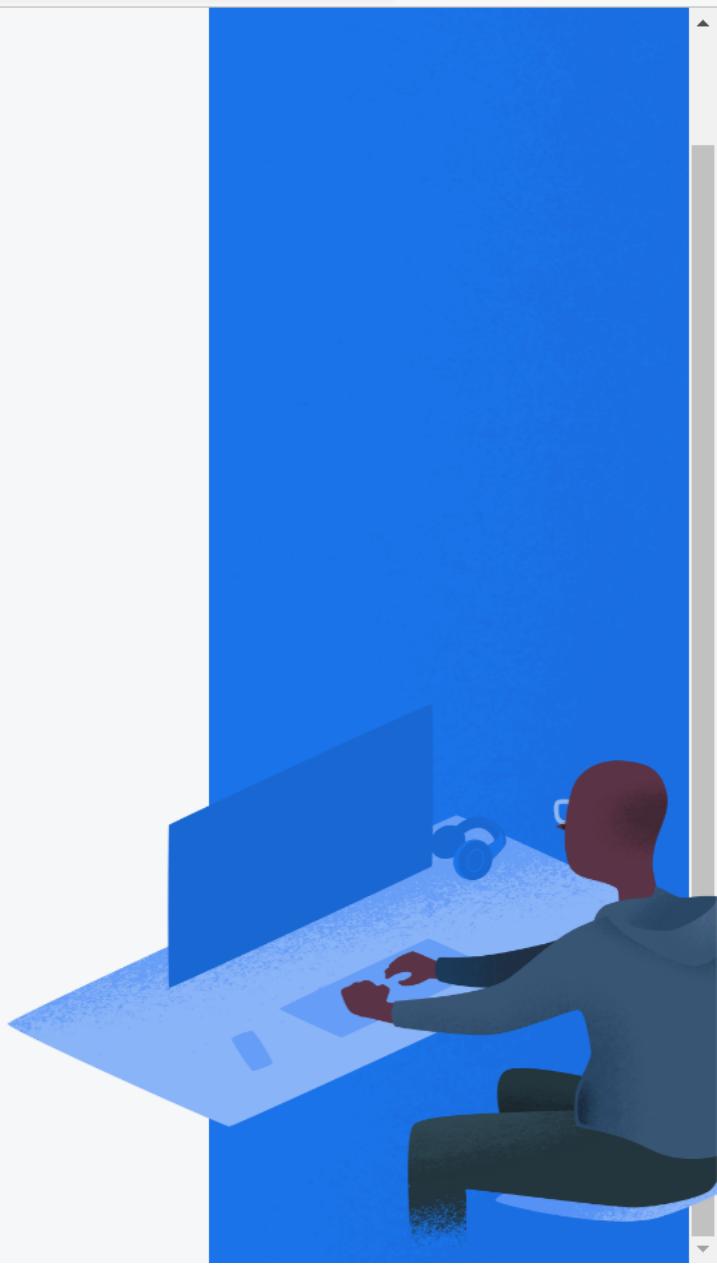
Google Analytics enables:

- A/B testing [?](#)
- Crash-free users [?](#)
- User segmentation & targeting across [?](#) Firebase products
- Event-based Cloud Functions triggers [?](#)
- Predicting user behavior [?](#)
- Free unlimited reporting [?](#)

Enable Google Analytics for this project  
Recommended

Previous

Continue



Firebase console

https://console.firebaseio.google.com/u/0/

Create a project (Step 3 of 3)

## Configure Google Analytics

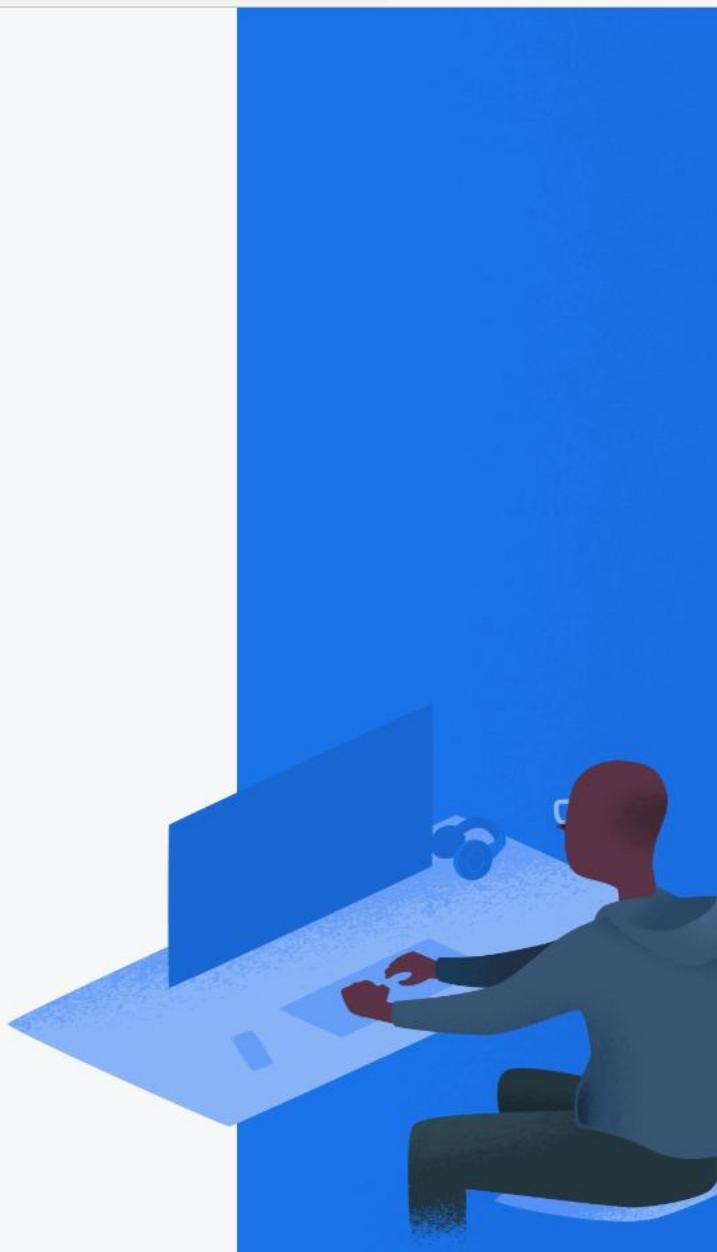
Choose or create a Google Analytics account [?](#)

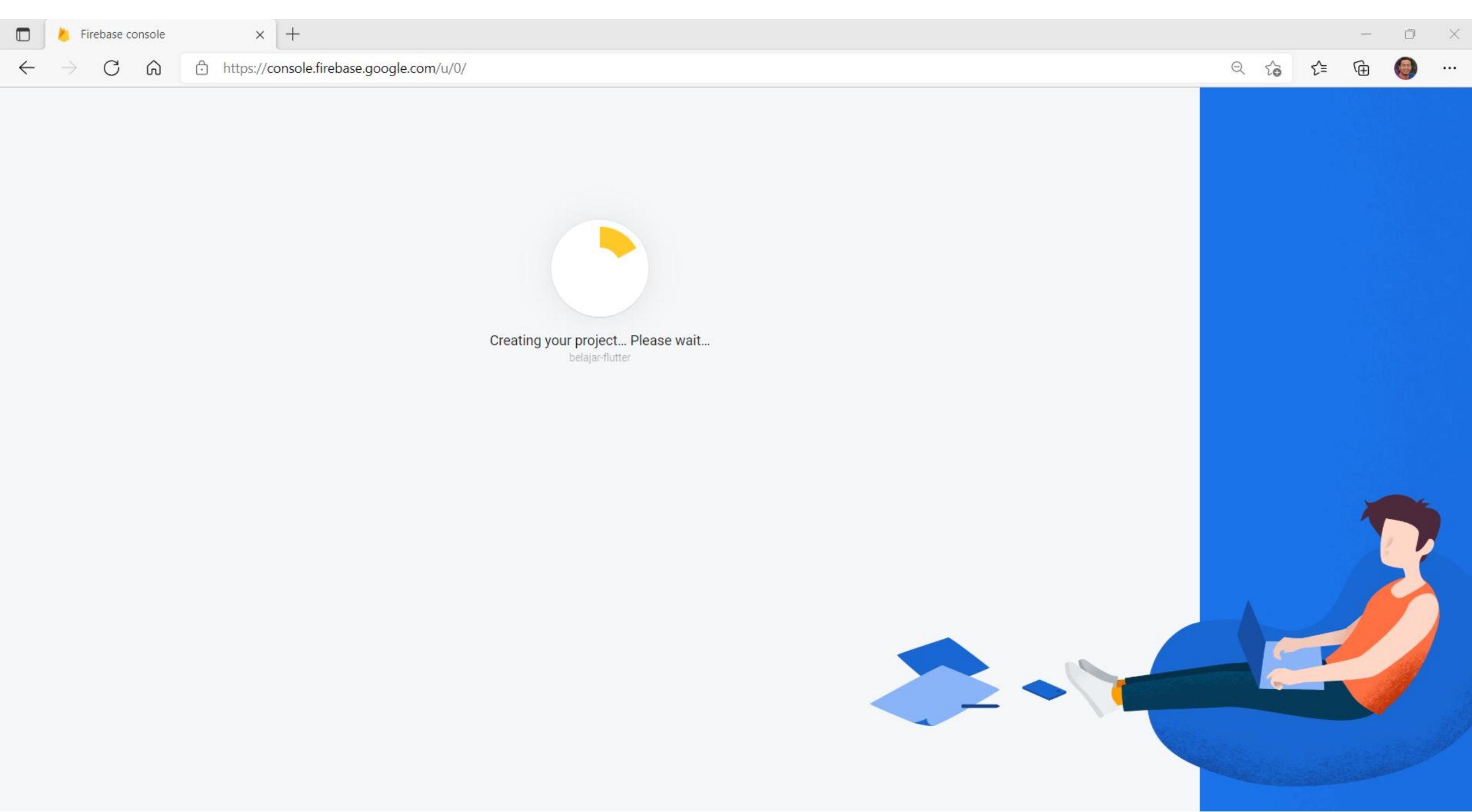
 Default Account for Firebase [▼](#)

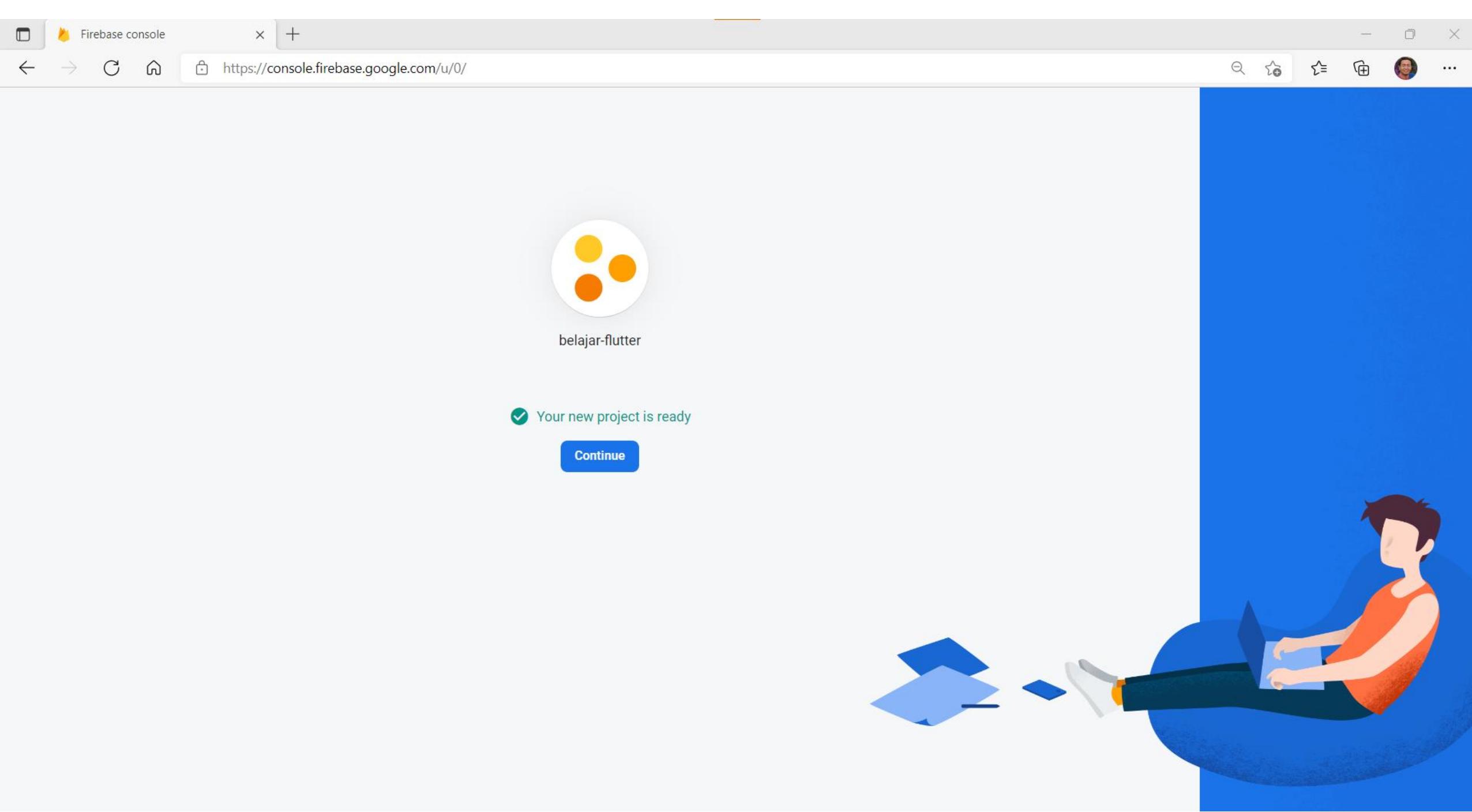
Automatically create a new property in this account [!\[\]\(7fc2f68205cbe877633d1061d3ddb063\_img.jpg\)](#)

Upon project creation, a new Google Analytics property will be created in your chosen Google Analytics account and linked to your Firebase project. This link will enable data flow between the products. Data exported from your Google Analytics property into Firebase is subject to the Firebase terms of service, while Firebase data imported into Google Analytics is subject to the Google Analytics terms of service. [Learn more](#).

[Previous](#) [Create project](#)







belajar-flutter - Overview - Fireb X +

https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/overview

Firebase

Project Overview

Build

- Authentication
- Firebase Database
- Realtime Database
- Storage
- Hosting
- Functions
- Machine Learning

Release & Monitor

Crashlytics, Performance, Test Lab, ...

Analytics

Dashboard, Realtime, Events, Conve...

Engage

Predictions, A/B Testing, Cloud Mes...

Extensions

Spark Free \$0/month Upgrade

belajar-flutter ▾

Receive email updates about new Firebase features, research, and events

Sign up X

belajar-flutter Spark plan

Get started by adding Firebase to your app

iOS+ Android </> 

Add an app to get started



Store and sync app data in milliseconds



The screenshot shows a Microsoft Bing search results page for the query "firebase flutter". The top navigation bar includes the Microsoft Bing logo, a search bar containing "firebase flutter", and icons for microphone, camera, and search. The user profile "Rizqi" is visible on the right. Below the search bar, there are tabs for "ALL", "IMAGES", "VIDEOS", "MAPS", and "NEWS", with "ALL" being the selected tab. The search results indicate 2,820,000 results and a date filter dropdown. The first result is a link to "firebase.flutter.dev - FlutterFire | FlutterFire" with the URL "https://firebase.flutter.dev". The snippet describes it as the official Firebase plugins for Flutter. Below this, there's a "EXPLORE FURTHER" section with links to GitHub, sqflite, adding Firebase to a Flutter app, Flutter Firebase courses, and cloud\_firestore packages. A "Recommended to you based on what's popular" section follows. The second result is a link to "Add Firebase to your Flutter app | Firebase Documentation" with the URL "https://firebase.google.com/docs/flutter/setup". The snippet provides the dependency code. To the right of the search results, there is a detailed card for "Firebase" with sections for "Platform", "Summary", "Social links" (Wikipedia, Facebook, LinkedIn), and "Key details" (Founded: 01 Sep 2011, Founders: James Tamplin, Andrew Lee, Leading companies: Google, Year of invention: 2012–present). A "People also search for" section is partially visible at the bottom.

Microsoft Bing

firebase flutter

ALL IMAGES VIDEOS MAPS NEWS

2.820.000 Results Date ▾

[firebase.flutter.dev - FlutterFire | FlutterFire](https://firebase.flutter.dev)

<https://firebase.flutter.dev>

The official **Firebase** plugins for **Flutter**. Except as otherwise noted, this work is licensed under a Creative Commons Attribution 4.0 International License, and code samples are licensed under the BSD License.

EXPLORE FURTHER

[GitHub - FirebaseExtended/flutterfire: 🔥 A collection ...](#)

[sqlite | Flutter Package](#)

[Add Firebase to your Flutter app | Firebase Documentation](#)

[Flutter Firebase - The Full Course](#)

[cloud\\_firestore | Flutter Package](#)

Recommended to you based on what's popular • Feedback

[Add Firebase to your Flutter app | Firebase Documentation](https://firebase.google.com/docs/flutter/setup)

<https://firebase.google.com/docs/flutter/setup>

19/11/2021 · dependencies: **flutter: sdk: flutter** # Check that you have this dependency (added in the previous step) **firebase\_core: ^0.4.0+9** # Add the dependencies for the **Firebase** products you want to use in your app # For example, to use **Firebase** Authentication and Cloud Firestore **firebase\_auth: ^0.14.0+5** **cloud\_firestore: ^0.12.9+5**

**Firebase**

Platform

 [Firebase](#)

Firebase is a platform developed by Google for creating mobile and web applications. It was originally an i... +

 [Wikipedia](#)

 [Facebook](#)

 [LinkedIn](#)

Founded: 01 Sep 2011

Founders: James Tamplin · Andrew Lee

Leading companies: Google

Year of invention: 2012–present

People also search for

belajar-flutter – Overview – Fireb | firebase flutter - Bing | Add Firebase to your Flutter app +

https://firebase.google.com/docs/flutter/setup?platform=ios

Firebase Documentation

Overview Fundamentals Build Release & Monitor Engage Reference Samples

Fundamentals

Get started with Firebase ▾

- › Add Firebase to an app
- › Add Firebase to a game
- › Add Firebase to a server
- › Use Firebase with a framework

Flutter

Set up projects programmatically B

Manage your Firebase projects ▾

Platforms and frameworks ▾

Protect project resources with App Check B ▾

Prototype and test with Emulator Suite B ▾

Catch up on everthing we announced at this year's Firebase Summit. [Learn more](#)

Firebase > Firebase Documentation > Fundamentals Was this helpful?

# Add Firebase to your Flutter app

iOS Send feedback

Follow this guide to add Firebase products to a Flutter app.

★ Note: Firebase supports frameworks like Flutter on a best-effort basis. These integrations are not covered by Firebase Support and may not have full feature parity with the [official Firebase SDKs](#).

Getting started with Firebase on Fl...  
Getting started with Firebase on Flutter

✓ iOS+ Android

## Prerequisites

- Install your preferred [editor or IDE](#).

On this page

Prerequisites

Step 1: Create a Firebase project

Step 2: Register your app with Firebase

Step 3: Add a Firebase configuration file

Step 4: Add FlutterFire plugins

Try out an example app with Analytics

Next steps

belajar-flutter – Realtime Database | Add Firebase to your Flutter app | +

https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database

Firebase belajar-flutter ▾

Project Overview |

Build

- Authentication
- Firebase Database
- Realtime Database**
- Storage
- Hosting
- Functions
- Machine Learning

Release & Monitor

Crashlytics, Performance, Test Lab, ...

Analytics

Dashboard, Realtime, Events, Conve...

Engage

Predictions, A/B Testing, Cloud Mes...

Extensions

Spark Free \$0/month Upgrade

Go to docs b

# Realtime Database

Store and sync data in real time

Create Database

Is Realtime Database right for you? [Compare Databases](#)

Learn more

How do I get started? [View the docs](#)

Introducing Firebase Realtime Database

Watch later Share

A screenshot of the Firebase Realtime Database console. The left sidebar shows various services like Authentication, Firestore Database, and Storage. The main area is titled 'Realtime Database' with the subtitle 'Store and sync data in real time'. It features a 'Create Database' button and a callout asking if Realtime Database is right for you, with a 'Compare Databases' link. Below this, there's a 'Learn more' section with a 'How do I get started?' link and a video thumbnail titled 'Introducing Firebase Realtime Database'.

belajar-flutter – Realtime Database | Add Firebase to your Flutter app | +

https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database

Firebase belajar-flutter ▾

Project Overview

Build

- Authentication
- Firebase Database
- Realtime Database
- Storage
- Hosting
- Functions
- Machine Learning

Release & Monitor

Analytics

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Upgrade

Go to docs

b

# Realtime Database

Store and sync data in real time

Set up database

1 Database options 2 Security rules

Your location setting is where your Realtime Database data will be stored.

Realtime Database location

United States (us-central1)

Cancel Next

Introducing Firebase Realtime Database

How do I get started? View the docs

Watch later Share

How do I get started? View the docs

Introducing Firebase Realtime Database

Watch later Share

belajar-flutter – Realtime Database | Add Firebase to your Flutter app | +

https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database

Firebase belajar-flutter ▾

Project Overview

Build

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- Firebase Database
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- Machine Learning

Release & Monitor

Analytics

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Go to docs

# Realtime Database

## Set up database

1 Database options 2 Security rules

Once you have defined your data structure **you will have to write rules to secure your data.**

[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.

```
{ "rules": { ".read": "now < 1640970000000", // 2022-1-1 ".write": "now < 1640970000000", // 2022-1-1 } }
```

**!** 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

How do I get started? View the docs

Watch later Share

b

belajar-flutter – Firebase console | Add Firebase to your Flutter app | +

https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database/belajar-flutter-61e82-default-rtdb/data

Firebase

Project Overview

Build

- Authentication
- Firebase Database
- Realtime Database**
- Storage
- Hosting
- Functions
- Machine Learning

Release & Monitor

Analytics

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Extensions

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belajar-flutter ▾

## Realtime Database

Data Rules Backups Usage

Protect your Realtime Database resources from abuse, such as billing fraud or phishing [Configure App Check](#)

https://belajar-flutter-61e82-default-rtdb.firebaseio.com/

belajar-flutter-61e82-default-rtdb: null

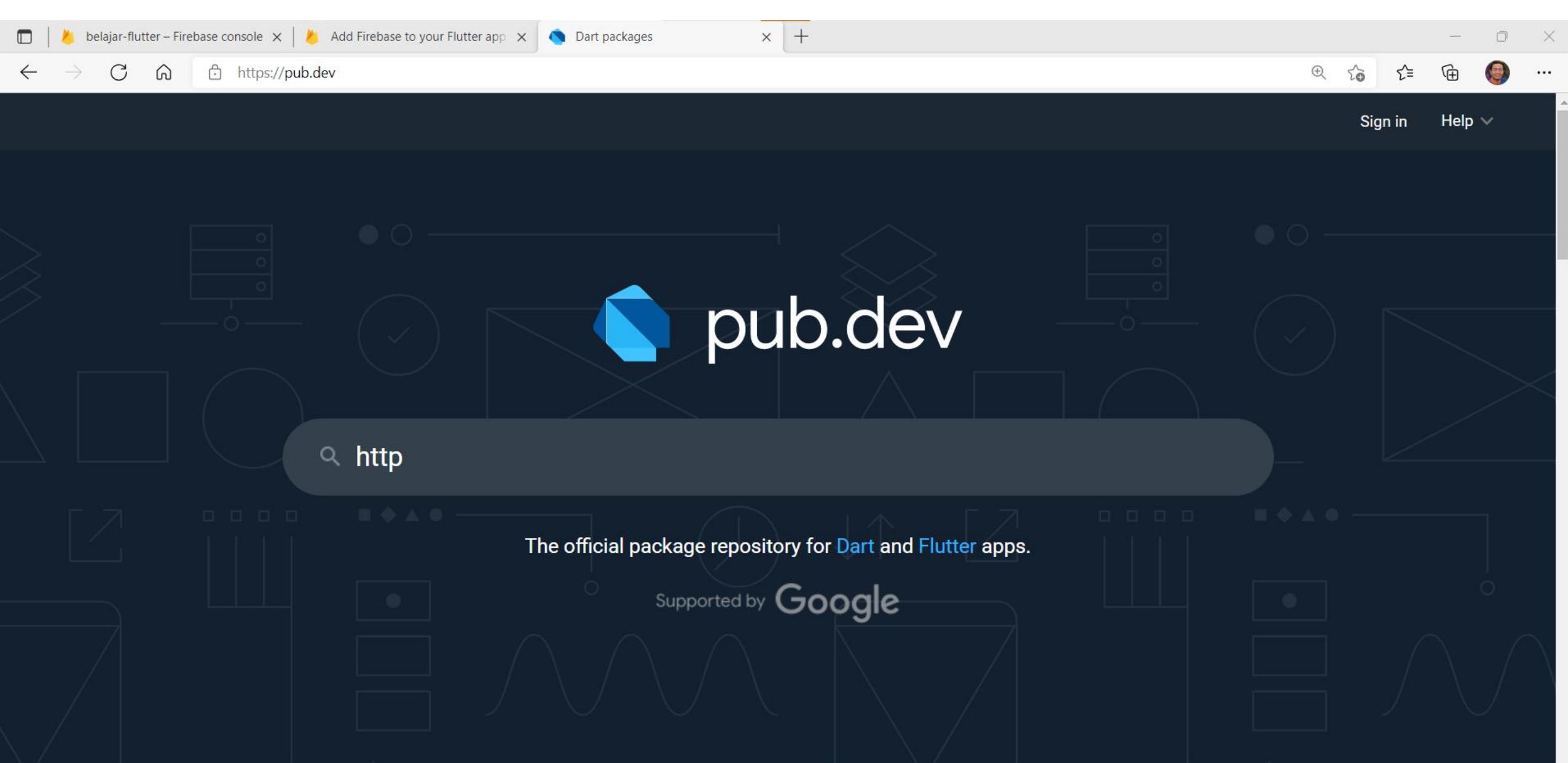
Database location: United States (us-central1)

Go to docs

?

b

# HOW TO SEND HTTP REQUESTS



Flutter Favorites

A screenshot of a web browser window showing the pub.dev page for the 'http' package. The browser tabs at the top include 'belajar-flutter - Firebase console', 'Add Firebase to your Flutter app', and 'http | Dart Package'. The main content area shows the package details for 'http 0.13.4'. The page includes sections for 'Readme', 'Changelog', 'Example', 'Installing', 'Versions', and 'Scores'. It also displays statistics like 3.71K likes, 3714 likes, 130 pub points, and 100% popularity. On the right side, there are sections for 'Publisher' (dart.dev), 'Metadata' (a composable, multi-platform, Future-based API for HTTP requests), 'Repository (GitHub)', 'View/report issues', 'Documentation', and 'API reference'. A code snippet for importing the package is shown in a code editor-like box.

# http 0.13.4

Published Oct 4, 2021 • dart.dev Null safety

DART NATIVE JS FLUTTER ANDROID IOS LINUX MACOS WEB WINDOWS

3.71K

[Readme](#) [Changelog](#) [Example](#) [Installing](#) [Versions](#) [Scores](#)

3714  
LIKES

130  
PUB POINTS

100%  
POPULARITY

A composable, Future-based library for making HTTP requests.

pub v0.13.4 Dart CI passing

This package contains a set of high-level functions and classes that make it easy to consume HTTP resources. It's multi-platform, and supports mobile, desktop, and the browser.

## Using

The easiest way to use this library is via the top-level functions. They allow you to make individual HTTP requests with minimal hassle:

```
import 'package:http/http.dart' as http;  
  
var url = Uri.parse('https://example.com/whatsit/create');
```

Publisher

dart.dev

Metadata

A composable, multi-platform, Future-based API for HTTP requests.

[Repository \(GitHub\)](#)

[View/report issues](#)

Documentation

[API reference](#)

belajar-flutter – Firebase console | Add Firebase to your Flutter app | http | Dart Package

https://pub.dev/packages/http/install

DART NATIVE JS FLUTTER ANDROID IOS LINUX MACOS WEB WINDOWS 3.71K

Readme Changelog Example **Installing** Versions Scores 3714 LIKES 130 PUB POINTS 100% POPULARITY

Use this package as a library

Depend on it

Run this command:

With Dart:

```
$ dart pub add http
```

With Flutter:

```
$ flutter pub add http
```

This will add a line like this to your package's pubspec.yaml (and run an implicit `dart pub get`):

```
dependencies:  
  http: ^0.13.4
```

Publisher  dart.dev

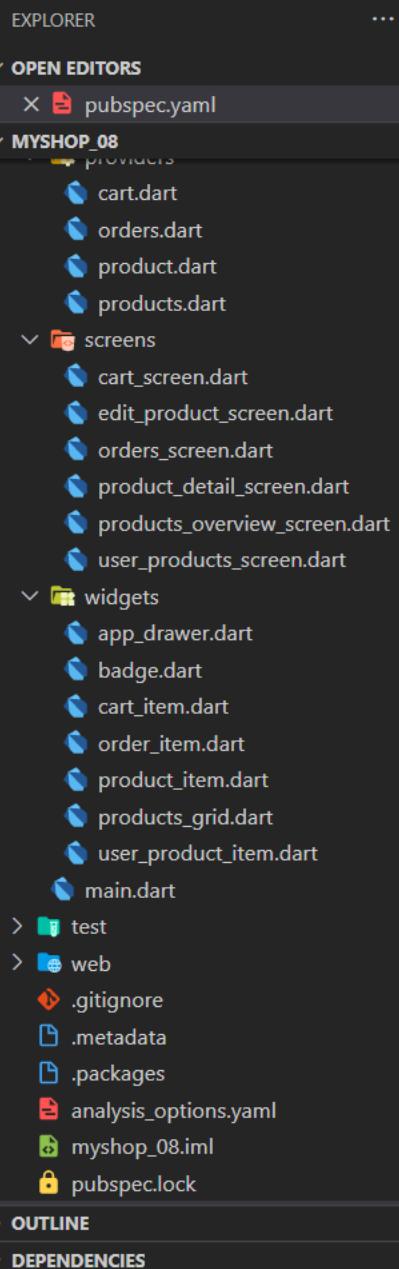
Metadata  
A composable, multi-platform, Future-based API for HTTP requests.

Repository (GitHub)  
View/report issues

Documentation  
API reference

License  
BSD-3-Clause ([LICENSE](#))

Dependencies  
async, http\_parser, meta, path



pubspec.yaml X

pubspec.yaml

```
23 # Dependencies specify other packages that your package needs in order to work.
24 # To automatically upgrade your package dependencies to the latest versions
25 # consider running `flutter pub upgrade --major-versions`. Alternatively,
26 # dependencies can be manually updated by changing the version numbers below to
27 # the latest version available on pub.dev. To see which dependencies have newer
28 # versions available, run `flutter pub outdated`.
29 dependencies:
30   flutter:
31     sdk: flutter
32   provider: ^6.0.1
33   intl: ^0.15.8
34   http: ^0.13.4
35
36   # The following adds the Cupertino Icons font to your application.
37   # Use with the CupertinoIcons class for iOS style icons.
38   cupertino_icons: ^1.0.2
39
40 dev_dependencies:
41   flutter_test:
42     sdk: flutter
43   # The "flutter_lints" package below contains a set of recommended lints to
44   # encourage good coding practices. The lint set used in the Flutter library is
45   # defined in the package "flutter_lints".
```

pubspec.yaml

flutter pub get: running...

Cancel

# Http Requests

When communicating with a (REST) API

Convention: **Http Endpoint (URL) + Http Verb = Action**



REST (or RESTful) APIs follow a default approach regarding how **incoming requests should be structured**/ set up.

# Http Requests

When communicating with a (REST) API

Convention: **Http Endpoint (URL) + Http Verb = Action**

GET

POST

PATCH

DELETE

Fetch data

Store data

Update data

Delete data

PUT

Replace data

# **SENDING POST REQUESTS**

belajar-flutter - Firebase console X Add Firebase to your Flutter app X http | Dart Package X | +

https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database/belajar-flutter-61e82-default-rtbd/data

Firebase

Project Overview

Build

- Authentication
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- Hosting
- Functions
- Machine Learning

Release & Monitor

Analytics

Engage

Extensions

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belajar-flutter ▾

## Realtime Database

Data Rules Backups Usage

Protect your Realtime Database resources from abuse, such as billing fraud or phishing Configure App Check

https://belajar-flutter-61e82-default-rtbd.firebaseio.com/ Go X

belajar-flutter-61e82-default-rtbd: null

Database location: United States (us-central1)

Go docs ?

b

File Edit Selection View Go Run Terminal Help products.dart - myshop\_08 - Visual Studio Code

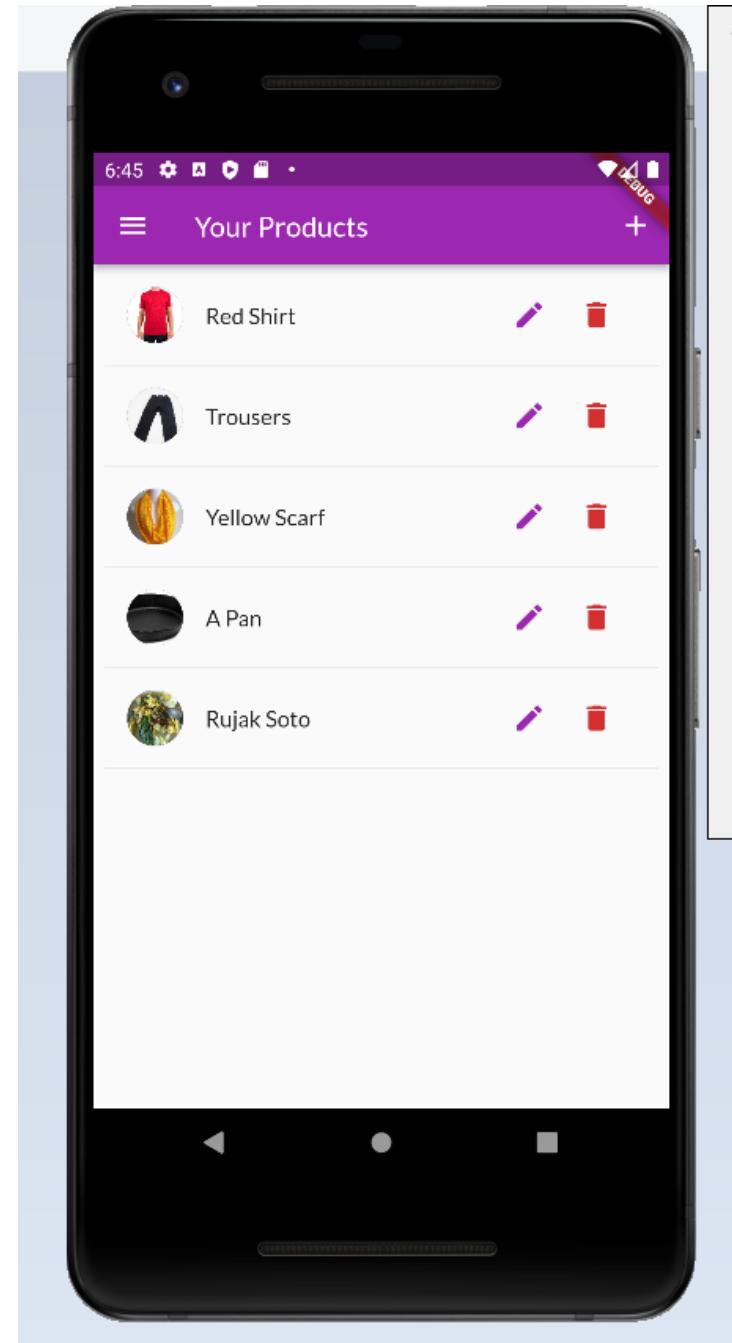
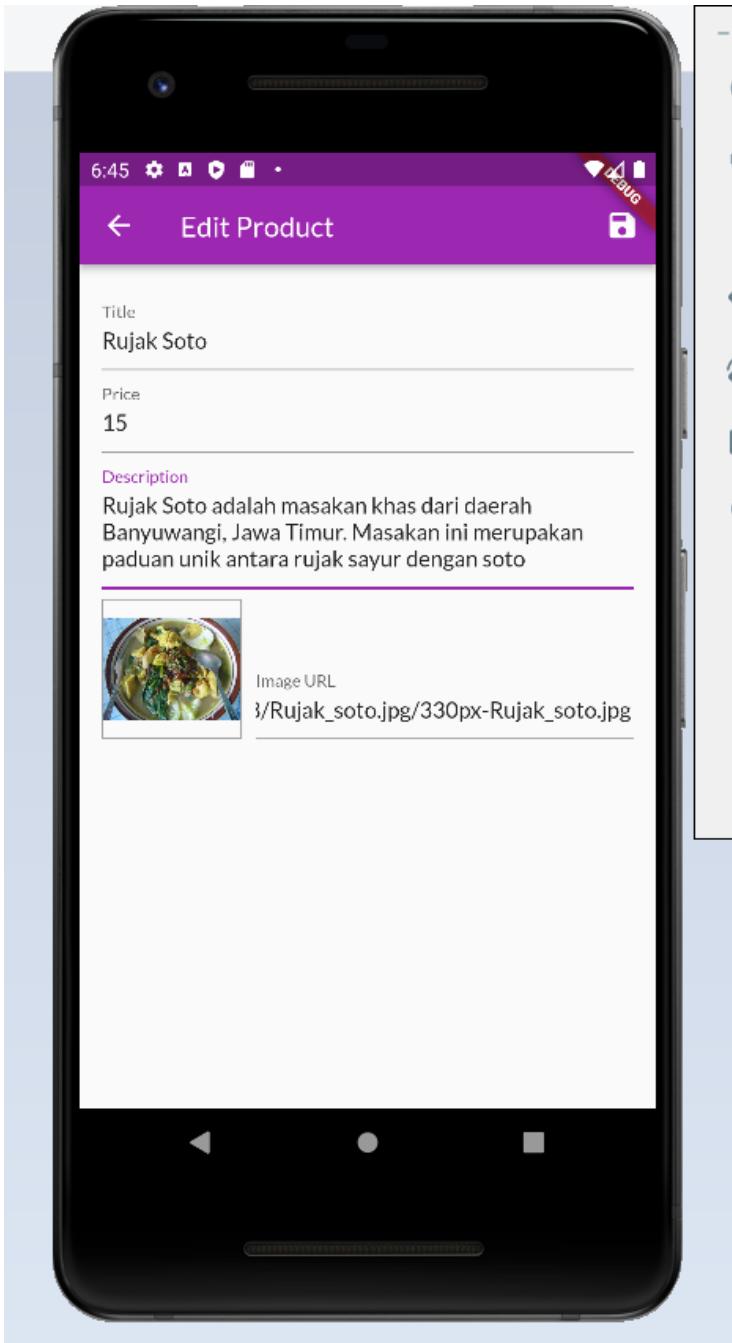
EXPLORER ... pubspec.yaml products.dart

lib > providers > products.dart > Products > addProduct

```
52     Product findById(String id) {  
53         return _items.firstWhere((prod) => prod.id == id);  
54     }  
55  
56     void addProduct(Product product) {  
57         const url =  
58             'https://belajar-flutter-61e82-default-firebaseio.com/products.json';  
59         http.post(  
60             Uri.parse(url),  
61             body: json.encode({  
62                 'title': product.title,  
63                 'description': product.description,  
64                 'imageUrl': product.imageUrl,  
65                 'price': product.price,  
66                 'isFavorite': product.isFavorite,  
67             }),  
68         );  
69         final newProduct = Product(  
70             title: product.title,  
71             description: product.description,  
72             price: product.price,  
73             imageUrl: product.imageUrl,
```

providers\products.dart

Ln 69, Col 1 (379 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier



belajar-flutter – Firebase console X Add Firebase to your Flutter app X http | Dart Package X +

https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database/belajar-flutter-61e82-default-rtbd/data

Firebase

Project Overview

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Extensions

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## Realtime Database

Data Rules Backups Usage

Protect your Realtime Database resources from abuse, such as billing fraud or phishing Configure App Check

https://belajar-flutter-61e82-default-rtbd.firebaseio.com/ + - ⋮

belajar-flutter-61e82-default-rtbd

- products
  - MpsNya6SuJLvayJbw35
    - description: "Rujak Soto adalah masakan khas dari daerah Bany..."
    - imageUrl: "https://upload.wikimedia.org/wikipedia/id/thumb..."
    - isFavorite: false
    - price: 15
    - title: "Rujak Soto"

Database location: United States (us-central1)

# **WORKING WITH FUTURES IN DART**



This kind of code is also called “asynchronous” (or just “async”) - it executes logic whilst other code continues executing.

The screenshot shows a code editor with a dark theme. On the left is a project navigation sidebar for a Flutter application named "MYSHOP\_08". The "lib" folder contains several sub-directories: "models", "providers", "screens", and "widgets". The "providers" directory is currently selected. Inside "providers", there are four files: "cart.dart", "orders.dart", "product.dart", and "products.dart". The "products.dart" file is open in the main editor area. The code is written in Dart and performs an asynchronous HTTP POST request to a Firebase Realtime Database endpoint to add a new product. The "body" of the request is encoded JSON containing the product's title, description, image URL, price, and favorite status. The response is then decoded and stored in a new "Product" object. The code uses the "http" package and the "json" package for encoding and decoding JSON.

```
52 Product findById(String id) {  
53     return _items.firstWhere((prod) => prod.id == id);  
54 }  
55  
56 void addProduct(Product product) {  
57     const url =  
58         'https://belajar-flutter-61e82-default-firebase.com.firebaseio.com/products.json';  
59     http  
60         .post(  
61             Uri.parse(url),  
62             body: json.encode(  
63                 {'title': product.title,  
64                  'description': product.description,  
65                  'imageUrl': product.imageUrl,  
66                  'price': product.price,  
67                  'isFavorite': product.isFavorite,  
68             }),  
69         )  
70         .then((response) {  
71             print(json.decode(response.body));  
72             final新产品 = Product(  
73                 title: product.title,
```

providers\products.dart

File Edit Selection View Go Run Terminal Help products.dart - myshop\_08 - Visual Studio Code

EXPLORER ... pubspec.yaml products.dart

lib > providers > products.dart > Products

```
67     'isFavorite': product.isFavorite,
68   },
69 }
70   .then((response) {
71     print(json.decode(response.body));
72     final newProduct = Product(
73       title: product.title,
74       description: product.description,
75       price: product.price,
76       imageUrl: product.imageUrl,
77       id: json.decode(response.body)['name'],
78     );
79     _items.add(newProduct);
80     //_items.insert(0, newProduct); // at the start of the list
81     notifyListeners();
82   });
83 }
84
85 void updateProduct(String id, Product newProduct) {
86   final prodIndex = _items.indexWhere((prod) => prod.id == id);
87   if (prodIndex >= 0) {
88     _items[prodIndex] = newProduct;
```

providers\products.dart

Ln 84, Col 1 (871 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier



File Edit Selection View Go Run Terminal Help products.dart - myshop\_08 - Visual Studio Code

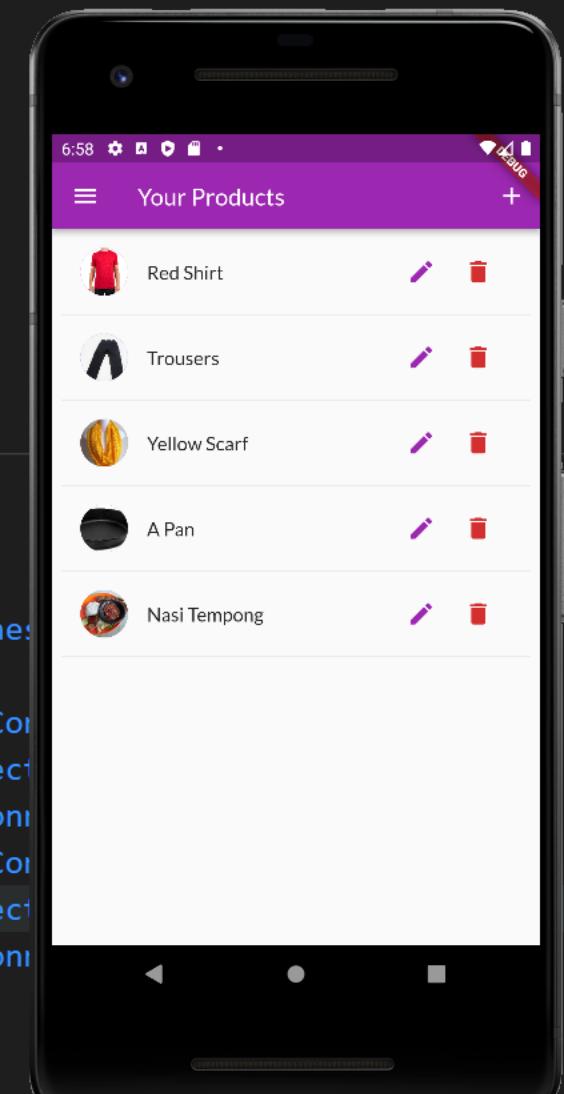
EXPLORER ... pubspec.yaml products.dart

lib > providers > products.dart > Products

67     'isFavorite': product.isFavorite,  
68     }),  
69     )  
70     .then((response) {  
71         print(json.decode(response.body));  
72         final newProduct = Product(  
73             title: product.title,  
74             description: product.description,  
75             price: product.price

PROBLEMS 99 OUTPUT DEBUG CONSOLE TERMINAL

Restarted application in 2,268ms.  
I/flutter (23648): Product rebuild  
I/chatty (23648): uid=10136(com.example.myshop\_08) 1.ui identical 2 lines  
I/flutter (23648): Product rebuild  
W/IInputConnectionWrapper(23648): getTextBeforeCursor on inactive InputConnection  
W/IInputConnectionWrapper(23648): getSelectedText on inactive InputConnection  
W/IInputConnectionWrapper(23648): getTextAfterCursor on inactive InputConnection  
W/IInputConnectionWrapper(23648): getTextBeforeCursor on inactive InputConnection  
W/IInputConnectionWrapper(23648): getSelectedText on inactive InputConnection  
W/IInputConnectionWrapper(23648): getTextAfterCursor on inactive InputConnection  
I/flutter (23648): {name: -MpsQmKiMhZfw6iWng0m}



providers\products.dart

belajar-flutter - Firebase console × Add Firebase to your Flutter app × http | Dart Package x +

https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database/belajar-flutter-61e82-default-rtbd/data

Firebase belajar-flutter ▾ Go to docs 🔔 b ?

Project Overview

Build

- Authentication
- Firebase Database
- Realtime Database**
- Storage
- Hosting
- Functions
- Machine Learning

Release & Monitor

Analytics

Engage

Extensions

Spark Free \$0/month Upgrade

## Realtime Database

Data Rules Backups Usage

Protect your Realtime Database resources from abuse, such as billing fraud or phishing Configure App Check

https://belajar-flutter-61e82-default-rtbd.firebaseio.com/ + - ⋮

belajar-flutter-61e82-default-rtbd

- products
  - MpsNya6SuJLvayJbw35
  - MpsQmKiMhZfw6iWngOm
    - description: "Nasi tempong atau akrab dengan sebutan Sego tem..."
    - imageUrl: "https://upload.wikimedia.org/wikipedia/commons/..."
    - isFavorite: false
    - price: 12.5
    - title: "Nasi Tempong"

Database location: United States (us-central1)

# [DART DEEP DIVE] FUTURES AND ASYNC CODE

DART

```
void main() {  
  var myFuture = Future(() {  
    return 'Hello';  
  });  
  print('This runs first!');  
  myFuture.then((result) => print(result));  
  print('This also runs before the future is done!');  
}
```

▶ Run

CONSOLE

This runs first!  
This also runs before the future is done!  
Hello

DART

```
void main() {  
  var myFuture = Future(() {  
  
});  
  print('This runs first!');  
  myFuture  
    .then((_) => print('...'))  
    .then((_) {print('After first then');});  
  print('This also runs before the future is done!');  
}
```

▶ Run

CONSOLE

This runs first!  
This also runs before the future is done!  
...  
After first then

DART

```
void main() {  
  var myFuture = Future(() {  
  
});  
  print('This runs first!');  
  myFuture  
    .then((_) => print('...'))  
    .catchError((error) {  
      // |...  
    })  
    .then((_) {print('After first then');});  
  print('This also runs before the future is done!');  
}
```

▶ Run

CONSOLE

This runs first!  
This also runs before the future is done!  
...  
After first then

# **SHOWING A LOADING INDICATOR**

File Edit Selection View Go Run Terminal Help products.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart X edit\_product\_screen.dart lib > providers > products.dart > Products > addProduct

OPEN EDITORS

MYSHOP\_08

- .dart\_tool
- .idea
- android
- assets
- build
- ios
- lib
  - models
  - providers
    - cart.dart
    - orders.dart
    - product.dart
    - products.dart
  - screens
    - cart\_screen.dart
    - edit\_product\_screen.dart
    - orders\_screen.dart
    - product\_detail\_screen.dart
    - products\_overview\_screen.dart
    - user\_products\_screen.dart
  - widgets
    - app\_drawer.dart
    - badge.dart
    - cart\_item.dart
    - order\_item.dart
    - product\_item.dart
    - products\_grid.dart
    - user\_product\_item.dart

OUTLINE

DEPENDENCIES

products.dart

edit\_product\_screen.dart

51      Product findById(String id) {  
52        return \_items.firstWhere((prod) => prod.id == id);  
53     }  
54  
55  
56    Future<void> addProduct(Product product) {  
57       const url =  
58            'https://belajar-flutter-61e82-default-firebaseio.com/products.json';  
59       return http  
60            .post(  
61              Uri.parse(url),  
62              body: json.encode({  
63                'title': product.title,  
64                'description': product.description,  
65                'imageUrl': product.imageUrl,  
66                'price': product.price,  
67                'isFavorite': product.isFavorite,  
68              }),  
69       )  
70            .then((response) {  
71              print(json.decode(response.body));  
72              final新产品 = Product(  
73                title: product.title,

providers\products.dart

Ln 60, Col 1 (164 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help edit\_product\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart edit\_product\_screen.dart X lib > screens > edit\_product\_screen.dart > \_EditProductScreenState

OPEN EDITORS products.dart lib\providers edit\_product\_screen.dart lib\scr...  
MYSHOP\_08 .dart\_tool .idea android assets build ios lib models providers cart.dart orders.dart product.dart products.dart screens cart\_screen.dart edit\_product\_screen.dart orders\_screen.dart product\_detail\_screen.dart products\_overview\_screen.dart user\_products\_screen.dart widgets app\_drawer.dart badge.dart cart\_item.dart order\_item.dart product\_item.dart products\_grid.dart user\_product\_item.dart

var \_initValues = {  
 'title': '',  
 'description': '',  
 'price': '',  
 'imageUrl': '',  
};  
var \_isInit = true;  
var \_isLoading = false;

@override  
void initState() {  
 \_imageUrlFocusNode.addListener(\_updateImageUrl);  
 super.initState();  
}  
  
@override  
void didChangeDependencies() {  
 if (\_isInit) {  
 final productId = ModalRoute.of(context).settings.arguments as String;  
 if (productId != null) {  
 \_editedProduct = Provider.of<Products>(context, listen: false).findById(productId);  
 }  
 }  
}

screens\edit\_product\_screen.dart

LN 37, Col 1 (27 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help edit\_product\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart edit\_product\_screen.dart X lib > screens > edit\_product\_screen.dart > \_EditProductScreenState

products.dart lib\providers edit\_product\_screen.dart lib\scr...  
MYSHOP\_08 .dart\_tool .idea android assets build ios lib models providers cart.dart orders.dart product.dart products.dart screens cart\_screen.dart edit\_product\_screen.dart orders\_screen.dart product\_detail\_screen.dart products\_overview\_screen.dart user\_products\_screen.dart widgets app\_drawer.dart badge.dart cart\_item.dart order\_item.dart product\_item.dart products\_grid.dart user\_product\_item.dart

void \_saveForm() {  
 final isValid = \_form.currentState.validate();  
 if (!isValid) {  
 return;  
 }  
 \_form.currentState.save();  
 setState(() {  
 \_isLoading = true;  
 });  
 if (\_editedProduct.id != null) {  
 Provider.of<Products>(context, listen: false)  
 .updateProduct(\_editedProduct.id, \_editedProduct);  
 setState(() {  
 \_isLoading = false;  
 });  
 Navigator.of(context).pop();  
 } else {  
 Provider.of<Products>(context, listen: false)  
 .addProduct(\_editedProduct)  
 .then((\_) {  
 setState(() {  
 \_isLoading = false;  
 });  
 });  
 }  
}

screens\edit\_product\_screen.dart

LN 116, Col 1 (747 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help edit\_product\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart edit\_product\_screen.dart X

lib > screens > edit\_product\_screen.dart > \_EditProductScreenState

\_IS\_LOADING = false,

```
102     });
103     Navigator.of(context).pop();
104 } else {
105     Provider.of<Products>(context, listen: false)
106         .addProduct(_editedProduct)
107         .then((_) {
108             setState(() {
109                 _isLoading = false;
110             });
111             Navigator.of(context).pop();
112         });
113 }
114 // Navigator.of(context).pop();
115 }
116
117 @override
118 Widget build(BuildContext context) {
119     return Scaffold(
120         appBar: AppBar(
121             title: Text('Edit Product'),
122             actions: <Widget>[
123                 IconButton(
```

screens\edit\_product\_screen.dart

Ln 116, Col 1 (747 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

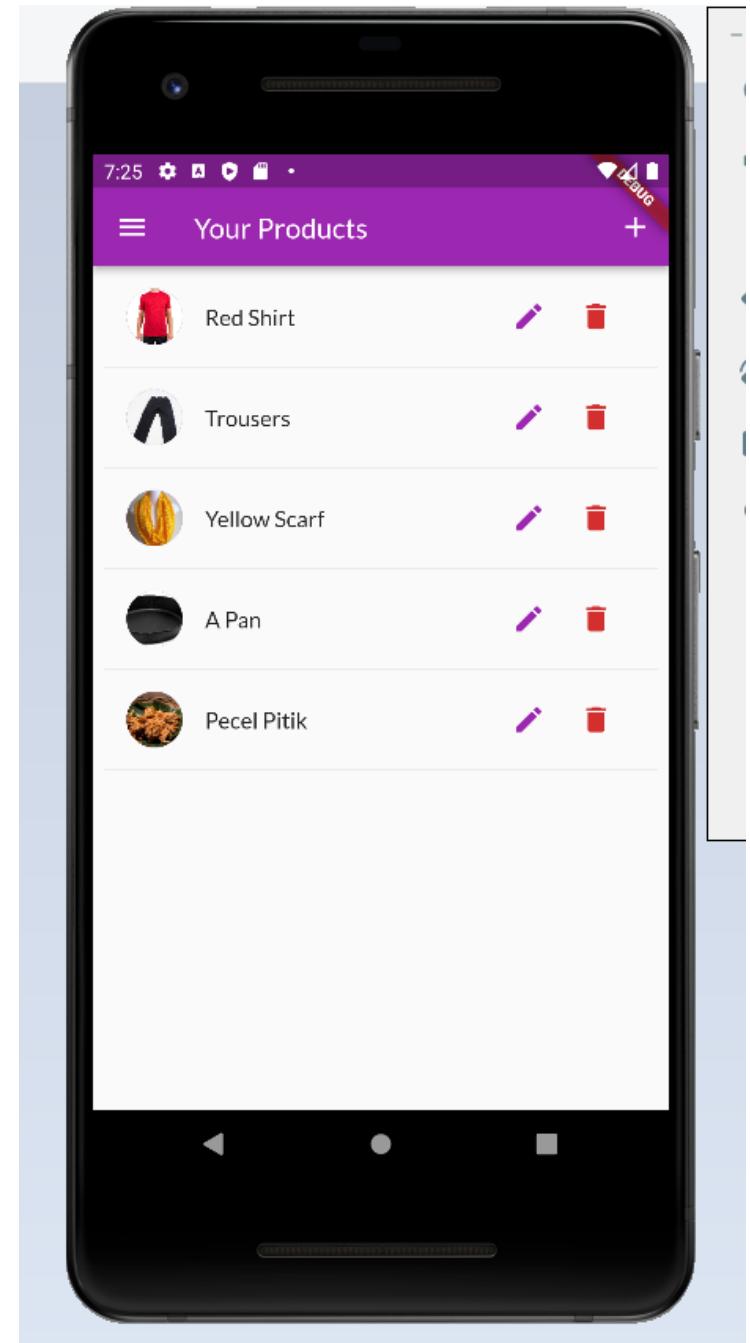
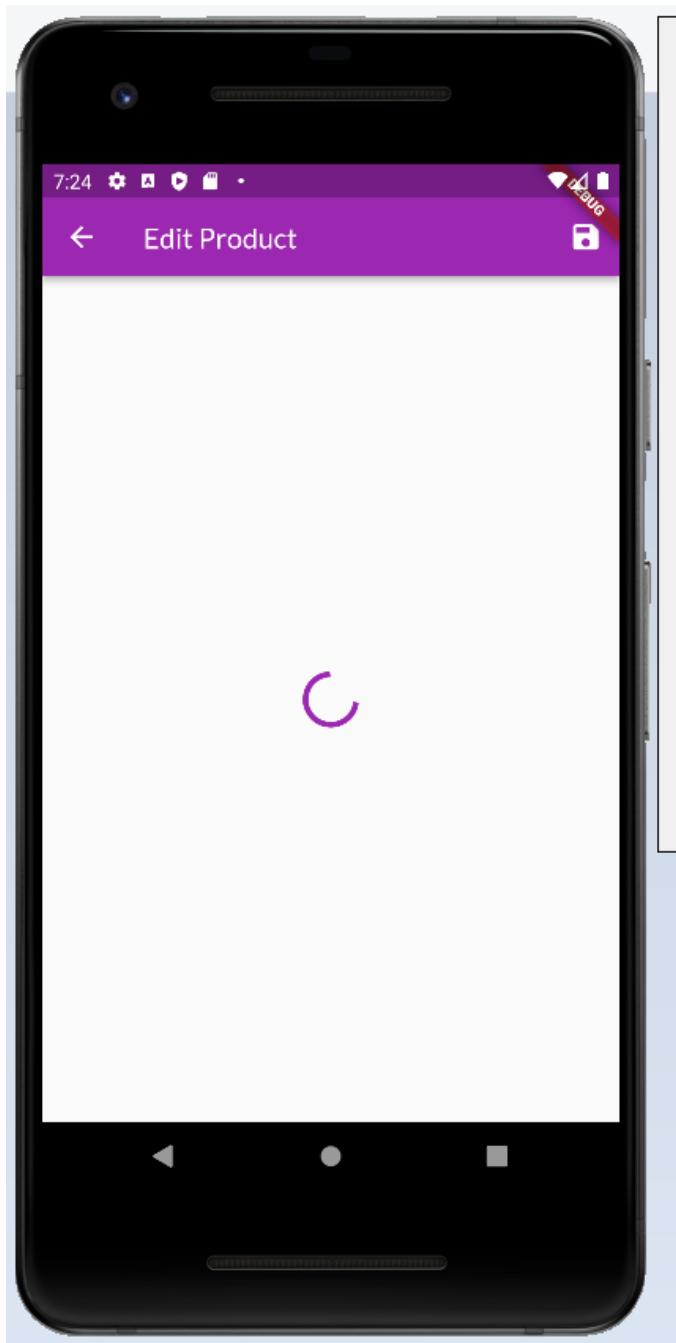
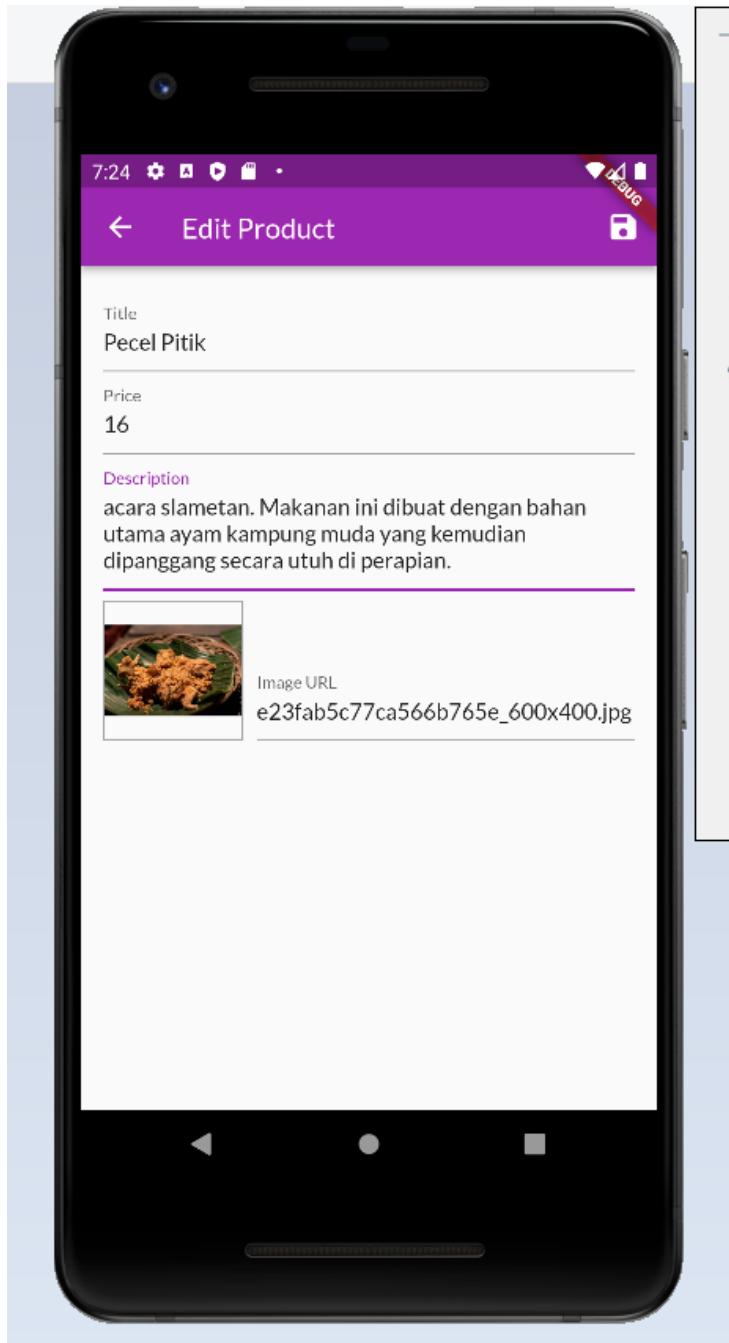
File Edit Selection View Go Run Terminal Help edit\_product\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart edit\_product\_screen.dart

lib > screens > edit\_product\_screen.dart > \_EditProductScreenState > build

118 Widget build(BuildContext context) {  
119 return Scaffold(  
120 appBar: AppBar(  
121 title: Text('Edit Product'),  
122 actions: <Widget>[  
123 IconButton(  
124 icon: Icon(Icons.save),  
125 onPressed: \_saveForm,  
126 ), // IconButton  
127 ], // <Widget>[]  
128 ), // AppBar  
129 body: \_isLoading  
130 ? Center(  
131 child: CircularProgressIndicator(),  
132 ) // Center  
133 : Padding(  
134 padding: const EdgeInsets.all(16.0),  
135 child: Form(  
136 key: \_form,  
137 child: ListView(  
138 children: <Widget>[  
139 TextFormField(  
144 Col 1 (591 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

screens\edit\_product\_screen.dart



belajar-flutter - Firebase console × Add Firebase to your Flutter app × http | Dart Package x + https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database/belajar-flutter-61e82-default-rtbd/data

← → ⌂ ⌂ 🔍 ⌂ https://belajar-flutter-61e82-default-rtbd.firebaseio.com/ +

Firebase belajar-flutter ▾ Go to docs 🔔 b ?

Project Overview

Build

- Authentication
- Firebase Database
- Realtime Database**
- Storage
- Hosting
- Functions
- Machine Learning

Release & Monitor

Analytics

Engage

Extensions

Spark Free \$0/month Upgrade

## Realtime Database

Data Rules Backups Usage

Protect your Realtime Database resources from abuse, such as billing fraud or phishing Configure App Check

https://belajar-flutter-61e82-default-rtbd.firebaseio.com/ + - ⋮

belajar-flutter-61e82-default-rtbd

- products
  - MpsNya6SuJLvayJbw35
  - MpsQmKiMhZfw6iWngOm
  - MpsWpFOzOTIiRAtp46i
    - description: "Pecel pitik adalah hidangan ayam khas suku Osin..."
    - imageUrl: "https://cdn.idntimes.com/content-images/communi..."
    - isFavorite: false
    - price: 16
    - title: "Pecel Pitik"

Database location: United States (us-central1)

# HANDLING ERRORS GRACEFULLY

File Edit Selection View Go Run Terminal Help products.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart x lib > providers > products.dart > Products > addProduct

OPEN EDITORS

products.dart lib\providers

MYSHOP\_08

lib

models

providers

- cart.dart
- orders.dart
- product.dart
- products.dart

screens

- cart\_screen.dart
- edit\_product\_screen.dart
- orders\_screen.dart
- product\_detail\_screen.dart
- products\_overview\_screen.dart
- user\_products\_screen.dart

widgets

- app\_drawer.dart
- badge.dart
- cart\_item.dart
- order\_item.dart
- product\_item.dart
- products\_grid.dart
- user\_product\_item.dart
- main.dart

test

web

.gitignore

.metadata

.packages

OUTLINE

DEPENDENCIES

```
68     }),
69   )
70   .then((response) {
71     print(json.decode(response.body));
72     final newProduct = Product(
73       title: product.title,
74       descrip Product product scription,
75       price: product.price,
76       imageUrl: product.imageUrl,
77       id: json.decode(response.body)[ 'name' ],
78     );
79     _items.add(newProduct);
80     // _items.insert(0, newProduct); // at the start of the list
81     notifyListeners();
82   }).catchError((error) {
83     print(error);
84     throw error;
85   });
86 }
87
88 void updateProduct(String id, Product newProduct) {
89   final prodIndex = _items.indexWhere((prod) => prod.id == id);
```

providers\products.dart

Go 1.15.6 ⚡ 0 ▲ 0 ⓘ 102 ⌂ Debug my code Ln 86, Col 1 (79 selected) Spaces: 2 UTF-8 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Go Update Available Prettier

File Edit Selection View Go Run Terminal Help edit\_product\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart edit\_product\_screen.dart

OPEN EDITORS products.dart lib\providers edit\_product\_screen.dart...

MYSHOP\_08 lib models providers cart.dart orders.dart product.dart products.dart screens cart\_screen.dart edit\_product\_screen.dart orders\_screen.dart product\_detail\_screen.dart products\_overview\_screen.dart user\_products\_screen.dart widgets app\_drawer.dart badge.dart cart\_item.dart order\_item.dart product\_item.dart products\_grid.dart user\_product\_item.dart main.dart test web .gitignore .metadata

edit\_product\_screen.dart

lib > screens > edit\_product\_screen.dart > \_EditProductScreenState > \_saveForm

```
105     } else {
106         Provider.of<Products>(context, listen: false)
107             .addProduct(_editedProduct)
108             .catchError((error) {
109                 return showDialog(
110                     context: context,
111                     builder: (ctx) => AlertDialog(
112                         title: Text('An error occurred!'),
113                         content: Text('Something went wrong.'),
114                         actions: <Widget>[
115                             FlatButton(
116                                 child: Text('Okay'),
117                                 onPressed: () {
118                                     Navigator.of(ctx)
119                                         .pushReplacementNamed(UserProductsScreen.routeName);
120                                 },
121                                 ), // FlatButton
122                                 ], // <Widget>[]
123                                 ), // AlertDialog
124                                 );
125             }).then((_) {
126                 setState(() {
```

screens\edit\_product\_screen.dart

Ln 125, Col 10 (565 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Go Update Available Prettier

File Edit Selection View Go Run Terminal Help products.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart edit\_product\_screen.dart

lib > providers > products.dart > Products > addProduct

54 }

55

56 Future<void> addProduct(Product product) {

57 const url =

58 ..... 'https://belajar-flutter-61e82-default-firebaseio.com/products';

59 return http

60 .post(

61 Uri.parse(url),

62 body: json.encode({

63 'title': product.title,

64 'description': product.description,

65 'imageUrl': product.imageUrl,

66 'price': product.price,

67 'isFavorite': product.isFavorite,

68 }),

69 )

70 .then((response) {

71 print(json.decode(response.body));

72 final newProduct = Product(

73 title: product.title,

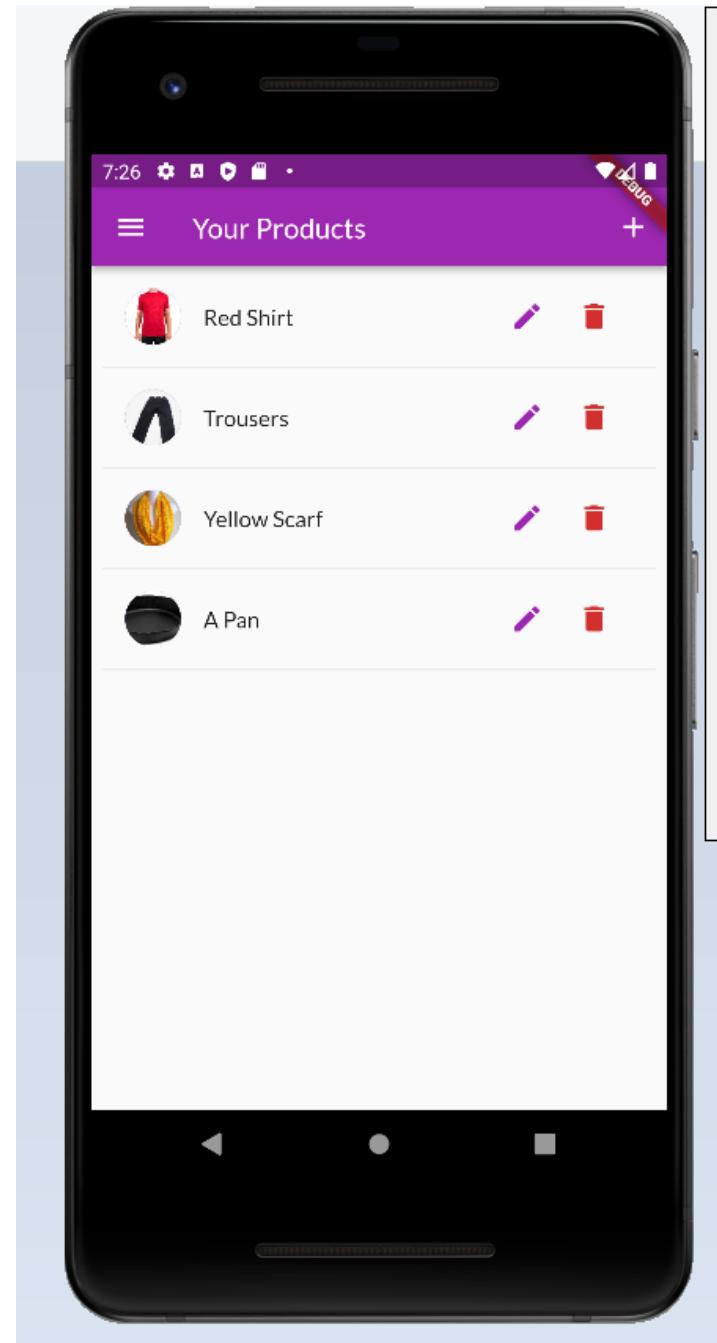
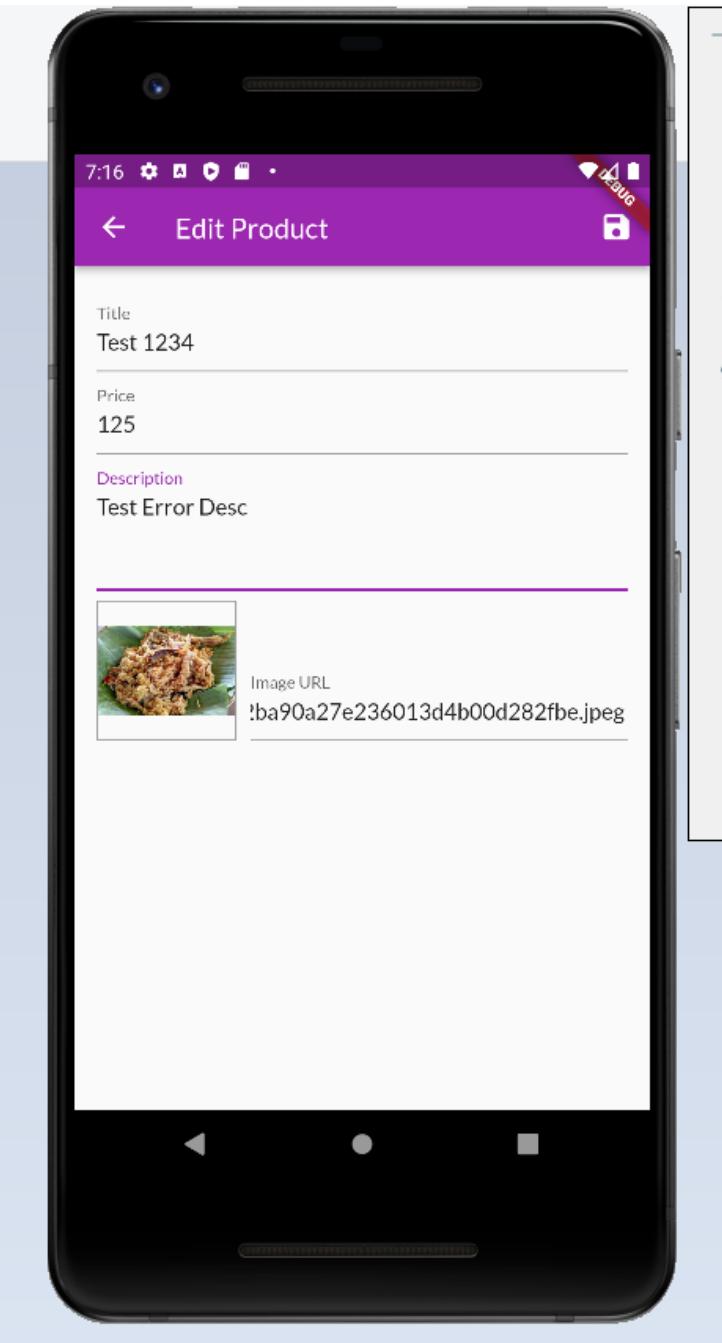
74 description: product.description,

75 price: product.price,

76 .

provides\products.dart

Go 1.15.6 ⚡ 0 △ 0 ⓘ 106 ⚡ Debug my code Ln 59, Col 1 (96 selected) Spaces: 2 UTF-8 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) ⚡ Go Update Available ⚡ Prettier ⚡



# **WORKING WITH ASYNC AND AWAIT**

File Edit Selection View Go Run Terminal Help products.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart edit\_product\_screen.dart

lib > providers > products.dart > Products

51  
52     Product findById(String id) {  
53         return \_items.firstWhere((prod) => prod.id == id);  
54     }  
55  
56     Future<void> addProduct(Product product) async {  
57         const url =  
58             'https://belajar-flutter-61e82-default-firebaseio.com/products.json';  
59         try {  
60             final response = await http.post(  
61                 Uri.parse(url),  
62                 body: json.encode({  
63                     'title': product.title,  
64                     'description': product.description,  
65                     'imageUrl': product.imageUrl,  
66                     'price': product.price,  
67                     'isFavorite': product.isFavorite,  
68                 }),  
69         );  
70         final newProduct = Product(  
71             title: product.title,  
72             description: product.description,

providers\products.dart

File Edit Selection View Go Run Terminal Help products.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart edit\_product\_screen.dart

lib > providers > products.dart > Products

```
69     );
70     final newProduct = Product(
71       title: product.title,
72       description: product.description,
73       price: product.price,
74       imageUrl: product.imageUrl,
75       id: json.decode(response.body)[ 'name' ],
76     );
77     _items.add(newProduct);
78     // _items.insert(0, newProduct); // at the start of the list
79     notifyListeners();
80   } catch (error) {
81     print(error);
82     throw error;
83   }
84 }

void updateProduct(String id, Product newProduct) {
  final prodIndex = _items.indexWhere((prod) => prod.id == id);
  if (prodIndex >= 0) {
    _items[prodIndex] = newProduct;
    notifyListeners();
}
```

providers\products.dart

File Edit Selection View Go Run Terminal Help edit\_product\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart edit\_product\_screen.dart

lib > screens > edit\_product\_screen.dart > \_EditProductScreenState

88 Future<void> \_saveForm() async {  
89 final isValid = \_form.currentState.validate();  
90 if (!isValid) {  
91 return;  
92 }  
93 \_form.currentState.save();  
94 setState(() {  
95 \_isLoading = true;  
96 });  
97 if (\_editedProduct.id != null) {  
98 Provider.of<Products>(context, listen: false)  
99 .updateProduct(\_editedProduct.id, \_editedProduct);  
100 setState(() {  
101 \_isLoading = false;  
102 });  
103 Navigator.of(context).pop();  
104 } else {  
105 try {  
106 await Provider.of<Products>(context, listen: false)  
107 .addProduct(\_editedProduct);  
108 } catch (error) {  
109 // Handle error  
110 }  
111 }  
112}

screens\edit\_product\_screen.dart

Ln 134, Col 1 (1256 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help edit\_product\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart edit\_product\_screen.dart

OPEN EDITORS products.dart lib\providers edit\_product\_screen.dart...

MYSHOP\_08 lib models providers cart.dart orders.dart product.dart products.dart screens cart\_screen.dart edit\_product\_screen.dart orders\_screen.dart product\_detail\_screen.dart products\_overview\_screen.dart user\_products\_screen.dart widgets app\_drawer.dart badge.dart cart\_item.dart order\_item.dart product\_item.dart products\_grid.dart user\_product\_item.dart main.dart test web .gitignore .metadata

OUTLINE DEPENDENCIES

edit\_product\_screen.dart

\_EditProductScreenState

```
104     Navigator.of(context).pop();  
105 } else {  
106     try {  
107         await Provider.of<Products>(context, listen: false)  
108             .addProduct(_editedProduct);  
109     } catch (error) {  
110         await showDialog(  
111             context: context,  
112             builder: (ctx) => AlertDialog(  
113                 title: Text('An error occurred!'),  
114                 content: Text('Something went wrong.'),  
115                 actions: <Widget>[  
116                     FlatButton(  
117                         child: Text('Okay'),  
118                         onPressed: () {  
119                             Navigator.of(ctx).pop();  
120                         },  
121                     ), // FlatButton  
122                 ], // <Widget>[]  
123             ), // AlertDialog  
124         );  
125     } finally {
```

screens\edit\_product\_screen.dart

Ln 134, Col 1 (1256 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help edit\_product\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart edit\_product\_screen.dart

OPEN EDITORS products.dart lib\providers edit\_product\_screen.dart...

MYSHOP\_08 lib models providers cart.dart orders.dart product.dart products.dart screens cart\_screen.dart edit\_product\_screen.dart orders\_screen.dart product\_detail\_screen.dart products\_overview\_screen.dart user\_products\_screen.dart widgets app\_drawer.dart badge.dart cart\_item.dart order\_item.dart product\_item.dart products\_grid.dart user\_product\_item.dart main.dart test web .gitignore .metadata

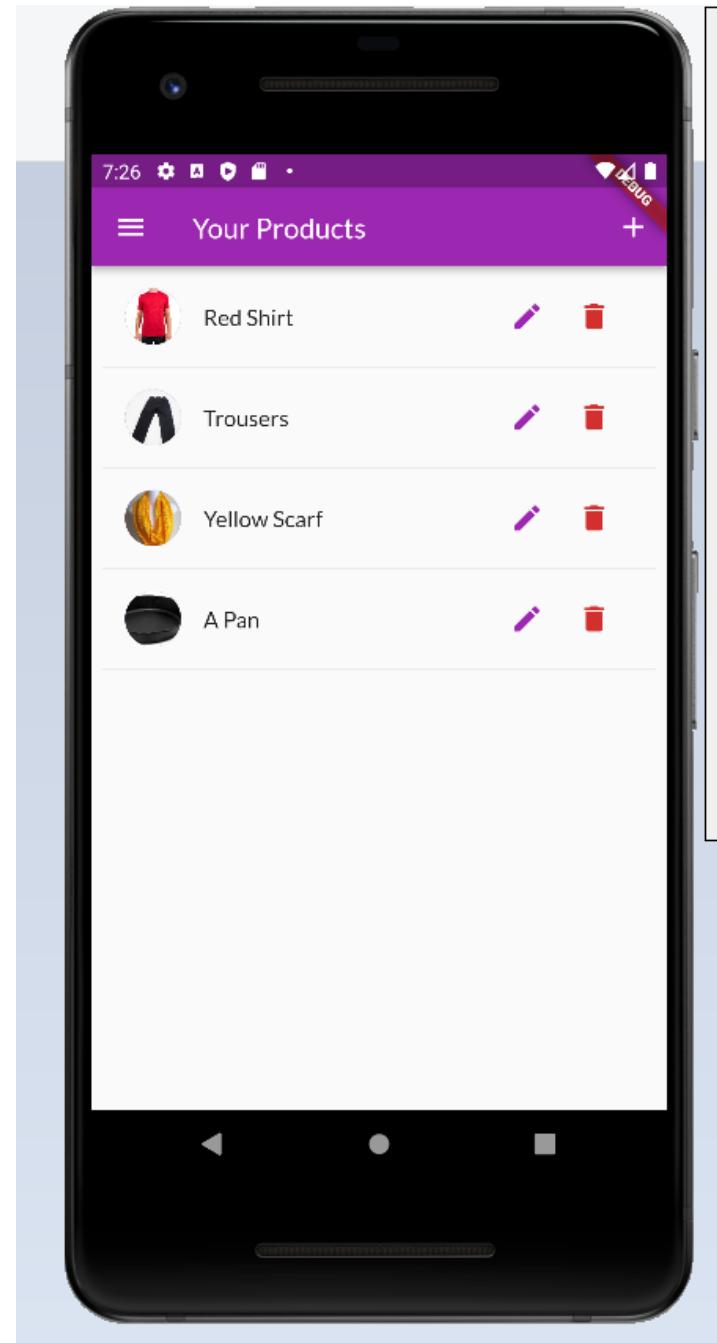
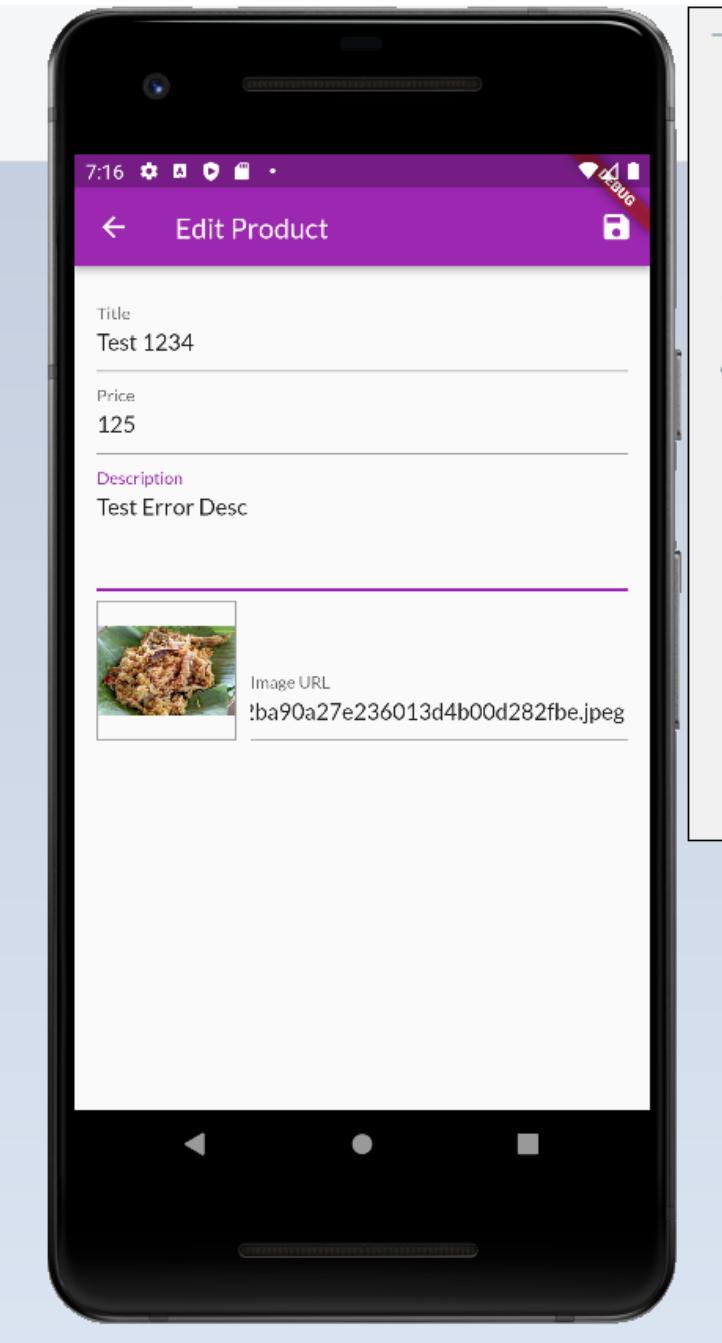
edit\_product\_screen.dart

lib > screens > edit\_product\_screen.dart > \_EditProductScreenState

```
118     onPressed: () {
119         Navigator.of(ctx).pop();
120     },
121     ),
122     ],
123     ),
124 );
125 } finally {
126     setState(() {
127         _isLoading = false;
128     });
129     Navigator.of(context).pop();
130 }
131 }
132 // Navigator.of(context).pop();
133 }
134
135 @override
136 Widget build(BuildContext context) {
137     return Scaffold(
138         appBar: AppBar(
139             title: Text('Edit Product'),
```

screens\edit\_product\_screen.dart

Ln 134, Col 1 (1256 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier



# **FETCHING DATA, INITSTATE AND OF(CONTEXT)**

belajar-flutter - Firebase console +

https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database/belajar-flutter-61e82-default-rtbd/data

Firebase belajar-flutter ▾ Go to docs ?

Project Overview Build Authentication Firestore Database Realtime Database Storage Hosting Functions Machine Learning Release & Monitor Crashlytics, Performance, Test Lab, ... Analytics Dashboard, Realtime, Events, Conve... Engage Predictions, A/B Testing, Cloud Mes... Extensions Spark Free \$0/month Upgrade

## Realtime Database

Data Rules Backups Usage

Protect your Realtime Database resources from abuse, such as billing fraud or phishing Configure App Check

https://belajar-flutter-61e82-default-rtbd.firebaseio.com/

belajar-flutter-61e82-default-rtbd

- products
  - MpsNya6SuJLvayJbw35
    - description: "Rujak Soto adalah masakan khas dari daerah Bany...
    - imageUrl: "https://upload.wikimedia.org/wikipedia/id/thumb/...
    - isFavorite: false
    - price: 15
    - title: "Rujak Soto"
  - MpsQmKiMhZfw6iWngOm
    - description: "Nasi tempong atau akrab dengan sebutan Sego tempong..."
    - imageUrl: "https://upload.wikimedia.org/wikipedia/commons/..."
    - isFavorite: false
    - price: 12.5
    - title: "Nasi Tempong"
  - MpsWpFOzOTliRAtp46i
    - description: "Pecel pitik adalah hidangan ayam khas suku Osind...
    - imageUrl: "https://cdn.idntimes.com/content-images/communi..."
    - isFavorite: false

Database location: United States (us-central1)

File Edit Selection View Go Run Terminal Help products.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart edit\_product\_screen.dart

lib > providers > products.dart > Products

50 }

51

52 Product findById(String id) {

53     return \_items.firstWhere((prod) => prod.id == id);

54 }

55

56 Future<void> fetchAndSetProducts() async {

57     const url =

58         'https://belajar-flutter-61e82-default-firebase.com.firebaseio.com/products.json';

59     try {

60         final response = await http.get(Uri.parse(url));

61         final extractedData = json.decode(response.body) as Map<String, dynamic>;

62         final List<Product> loadedProducts = [];

63         extractedData.forEach((prodId, prodData) {

64             loadedProducts.add(Product(

65                 id: prodId,

66                 title: prodData['title'],

67                 description: prodData['description'],

68                 price: prodData['price'],

69                 isFavorite: prodData['isFavorite'],

70                 imageUrl: prodData['imageUrl'],

71             ));

provides\products.dart

Ln 79, Col 1 (805 selected) Spaces: 2 UFT-8 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help products.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart X edit\_product\_screen.dart

lib > providers > products.dart > Products

```
title: prodData['title'],
description: prodData['description'],
price: prodData['price'],
isFavorite: prodData['isFavorite'],
imageUrl: prodData['imageUrl'],
));
});
_items = loadedProducts;
notifyListeners();
} catch (error) {
throw error;
}
}

Future<void> addProduct(Product product) async {
const url =
'https://belajar-flutter-61e82-default-firebaseio.com/products.json';
try {
final response = await http.post(
Uri.parse(url),
body: json.encode({
'title': product.title,
}),
```

providers\products.dart

Ln 79, Col 1 (805 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help products\_overview\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart ● products\_overview\_screen.dart X edit\_product\_screen.dart

lib > screens > products\_overview\_screen.dart > \_ProductsScreenState

```
20
21 class _ProductsScreenState extends State<ProductsOverviewScreen> {
22     var _showOnlyFavorites = false;
23     var _isInit = true;
24     var _isLoading = false;
25
26     @override
27     void initState(){
28         // Provider.of<Products>(context).fetchAndSetProducts(); // WON'T WORK!
29         Future.delayed(Duration.zero).then((_) {
30             // Provider.of<Products>(context).fetchAndSetProducts();
31         });
32         super.initState();
33     }
34
35     @override
36     void didChangeDependencies(){
37         if (_isInit) {
38             setState(() {
39                 _isLoading = true;
40             });
41             Provider.of<Products>(context).fetchAndSetProducts().then((_) {
```

screens\product\_overview\_screen.dart

Ln 50, Col 1 (666 selected) Spaces: 2 UTF-8 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help products\_overview\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... products.dart ● products\_overview\_screen.dart X edit\_product\_screen.dart

OPEN EDITORS 1 UNSAVED

- products.dart lib\providers
- products\_overview\_screen.dart
- edit\_product\_screen.dart

MYSHOP\_08

- lib
- models
- providers
  - cart.dart
  - orders.dart
  - product.dart
  - products.dart
- screens
  - cart\_screen.dart
  - edit\_product\_screen.dart
  - orders\_screen.dart
  - product\_detail\_screen.dart
  - products\_overview\_screen.dart
  - user\_products\_screen.dart
- widgets
  - app\_drawer.dart
  - badge.dart
  - cart\_item.dart
  - order\_item.dart
  - product\_item.dart
  - products\_grid.dart
  - user\_product\_item.dart
  - main.dart
- test
- web
- .gitignore

OUTLINE

DEPENDENCIES

products\_overview\_screen.dart

lib > screens > products\_overview\_screen.dart > \_ProductsOverviewScreenState

```
36 void didChangeDependencies() {  
37   if (_isInit) {  
38     setState(() {  
39       _isLoading = true;  
40     });  
41     Provider.of<Products>(context).fetchAndSetProducts().then((_) {  
42       setState(() {  
43         _isLoading = false;  
44       });  
45     });  
46   }  
47   _isInit = false;  
48   super.didChangeDependencies();  
49 }  
50  
51 @override  
52 Widget build(BuildContext context) {  
53   return Scaffold(  
54     appBar: AppBar(  
55       title: Text('MyShop'),  
56       actions: <Widget>[  
57         PopupMenuButton(  
58       ]  
59     ),  
60   );  
61 }  
62  
63 class _ProductsOverviewScreenState extends State<ProductsOvervie...  
64  
65 }
```

Ln 50, Col 1 (666 selected) Spaces: 2 UTF-8 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

screens\product\_overview\_screen.dart

File Edit Selection View Go Run Terminal Help products.dart - myshop\_08 - Visual Studio Code

products.dart X products\_overview\_screen.dart edit\_product\_screen.dart lib > providers > products.dart > Products > fetchAndSetProducts

```
56 Future<void> fetchAndSetProducts() async {
57     const url =
58         'https://belajar-flutter-61e82-default.firebaseio.com/products.json';
59     try {
60         final response = await http.get(Uri.parse(url));
61         print(json.decode(response.body));
62     } catch (error) {
63         throw error;
64     }
65 }
```

PROBLEMS (110) OUTPUT DEBUG CONSOLE TERMINAL Filter (e.g. text, exclude)

```
I/flutter ( 5461): Product rebuild
I/flutter ( 5461): {-MpsNya6SuJLvyJbw35: {description: Rujak Soto adalah masakan khas dari daerah Banyuwangi, Jawa Timur. Masakan ini merupakan paduan unik antara rujak sayur dengan soto, imageUrl: https://upload.wikimedia.org/wikipedia/id/thumb/a/a8/Rujak\_soto.jpg/330px-Rujak\_soto.jpg, isFavorite: false, price: 15.0, title: Rujak Soto}, -MpsQmKiMhZfw6iWng0m: {description: Nasi tempong atau akrab dengan sebutan Sego tempong adalah makanan khas Banyuwangi berupa kumpulan sayuran yang sudah direbus seperti bayam, kenikir dan daun kemangi dan lauk tahu, tempe, bakwan jagung goreng, dan ikan jambal goreng tepung., imageUrl: https://upload.wikimedia.org/wikipedia/commons/thumb/b/b7/Nasi\_tempong\_ikan\_goreng\_1.jpg/375px-Nasi\_tempong\_ikan\_goreng\_1.jpg, isFavorite: false, price: 12.5, title: Nasi Tempong}, -MpsWpFOzOTIiRAtp46i: {description: Pecel pitik adalah hidangan ayam khas suku Osing di Banyuwangi, Jawa Timur, Indonesia. Pada zaman dahulu, masakan ini hanya dihidangkan pada saat ada acara slametan. Makanan ini dibuat dengan bahan}
I/flutter ( 5461): Product rebuild
I/chatty ( 5461): uid=10136(com.example.myshop_08) 1.ui identical 2 lines
T/flutter ( 5461): Product rebuild
```

Ln 61, Col 41 Spaces: 2 UTF-8 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

# **HOW TO TRANSFORM FETCHED DATA**

File Edit Selection View Go Run Terminal Help • products.dart - myshop\_08 - Visual Studio Code

products.dart products\_overview\_screen.dart edit\_product\_screen.dart

lib > providers > products.dart > Products > \_items

7

```
8 class Products with ChangeNotifier {  
9     List<Product> _items = [  
10     // Product(  
11     //   id: 'p1',  
12     //   title: 'Red Shirt',  
13     //   description: 'A red shirt... it is pretty red!',  
14     //   price: 29.99,  
15     //   imageUrl:  
16     //     'https://cdn.pixabay.com/photo/2016/10/02/22/17/red-t-shirt-1710578_1280.jpg',  
17     // ),  
18     // Product(  
19     //   id: 'p2',  
20     //   title: 'Trousers',  
21     //   description: 'A nice pair of trousers.',  
22     //   price: 59.99,  
23     //   imageUrl:  
24     //     'https://upload.wikimedia.org/wikipedia/commons/thumb/e/e8/Trousers%2C_dress_%28AM_1960.022-  
25     // ),  
26     // Product(  
27     //   id: 'p3',  
28     //   title: 'Yellow Scarf',
```

providers\products.dart

Ln 42, Col 1 (1184 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier



products.dart

products\_overview\_screen.dart

edit\_product\_screen.dart

```
lib > providers > products.dart > Products > _items
  ...
25  ...
26  ...
27  ...
28  ...
29  ...
30  ...
31  ...
32  ...
33  ...
34  ...
35  ...
36  ...
37  ...
38  ...
39  ...
40  ...
41  ...
42  ];
43
44  List<Product> get items {
45    return [..._items];
46 }
```

providers\products.dart

File Edit Selection View Go Run Terminal Help • products.dart - myshop\_08 - Visual Studio Code

products.dart products\_overview\_screen.dart edit\_product\_screen.dart

lib > providers > products.dart > Products

```
52 Product findById(String id) {  
53     return _items.firstWhere((prod) => prod.id == id);  
54 }  
55  
56 Future<void> fetchAndSetProducts() async {  
57     const url =  
58         'https://belajar-flutter-61e82-default-firebase.com.firebaseio.com/products.json';  
59     try {  
60         final response = await http.get(Uri.parse(url));  
61         final extractedData = json.decode(response.body) as Map<String, dynamic>;  
62         final List<Product> loadedProducts = [];  
63         extractedData.forEach((prodId, prodData) {  
64             loadedProducts.add(Product(  
65                 id: prodId,  
66                 title: prodData['title'],  
67                 description: prodData['description'],  
68                 price: prodData['price'],  
69                 isFavorite: prodData['isFavorite'],  
70                 imageUrl: prodData['imageUrl'],  
71             ));  
72         });  
73         _items = loadedProducts;  
74     } catch (e) {  
75         print(e);  
76     }  
77 }  
78  
79 _items = [];
```

providers\products.dart

Ln 79, Col 1 (805 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help • products.dart - myshop\_08 - Visual Studio Code

products.dart products\_overview\_screen.dart edit\_product\_screen.dart

lib > providers > products.dart > Products

```
64     loadedProducts.add(Product(    id: prodId,    title: prodData['title'],    description: prodData['description'],    price: prodData['price'],    isFavorite: prodData['isFavorite'],    imageUrl: prodData['imageUrl'],  ));  });
72  });
73 _items = loadedProducts;
74 notifyListeners();
75 } catch (error) {
76   throw error;
77 }
78 }
```

Future<void> addProduct(Product product) async {  
 const url =  
 '<https://belajar-flutter-61e82-default-firebaseio.com/products.json>';  
 try {  
 final response = await http.post(  
 Uri.parse(url),

providers\products.dart

Ln 79, Col 1 (805 selected) Spaces: 2 UTF-8 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help products\_overview\_screen.dart - myshop\_08 - Visual Studio Code

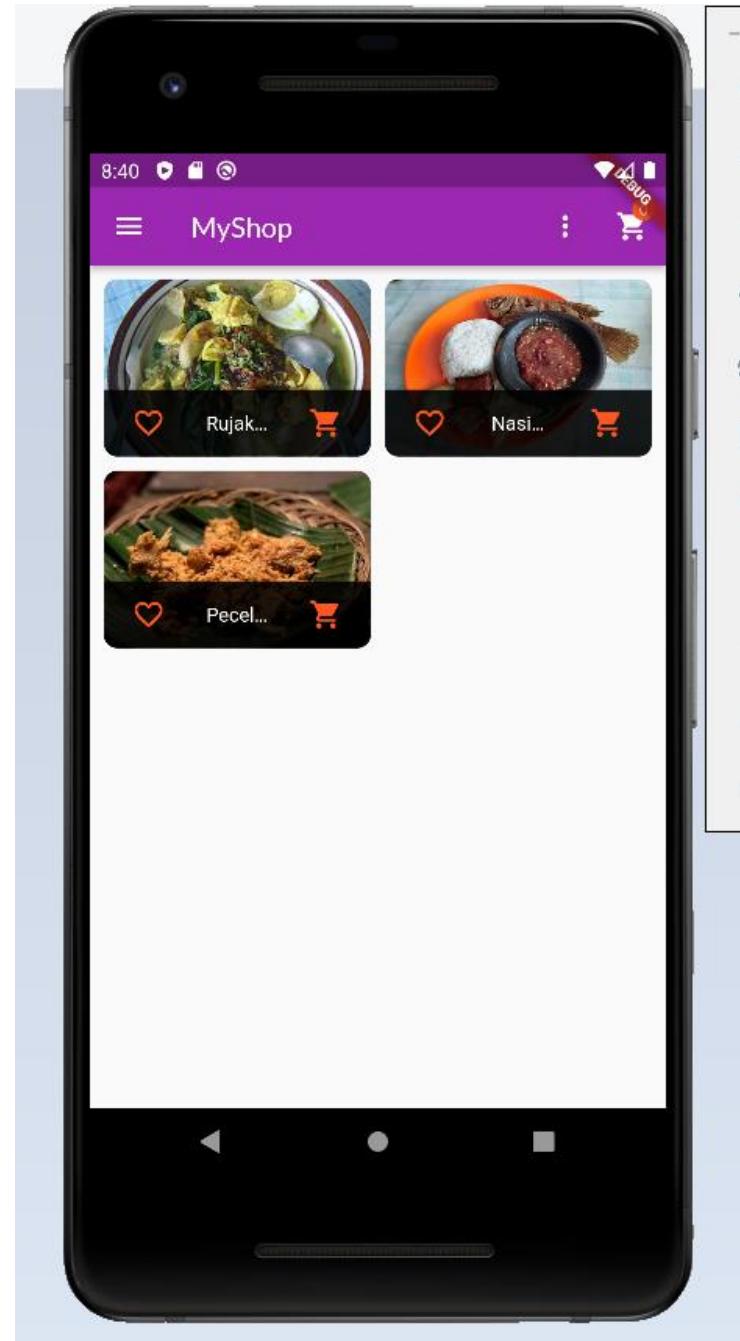
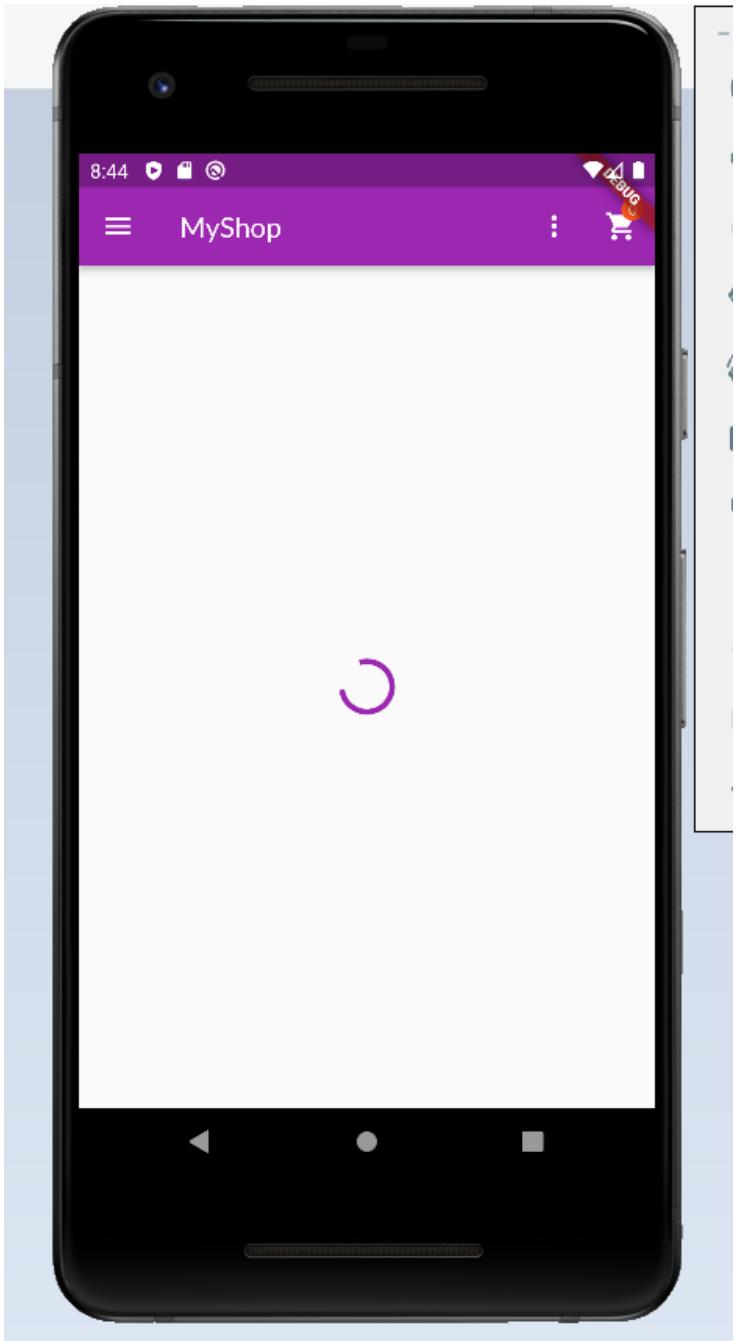
products.dart products\_overview\_screen.dart edit\_product\_screen.dart

lib > screens > products\_overview\_screen.dart > \_ProductsScreenState > build

```
85 ), // Badge
86     child: IconButton(
87         icon: Icon(
88             Icons.shopping_cart,
89         ), // Icon
90         onPressed: () {
91             Navigator.of(context).pushNamed(CartScreen.routeName);
92         },
93         ), // IconButton
94         ), // Consumer
95     ], // <Widget>[]
96 ), // AppBar
97 drawer: AppDrawer(),
98 body: _isLoading
99 ? Center(
100     child: CircularProgressIndicator(),
101 ) // Center
102 : ProductsGrid(_showOnlyFavorites),
103 ); // Scaffold
104 }
105 }
106 }
```

screens\product\_overview\_screen.dart

Ln 103, Col 1 (158 selected) Spaces: 2 UTF-8 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier



# **IMPLEMENTING PULL-TO-REFRESH**

File Edit Selection View Go Run Terminal Help user\_products\_screen.dart - myshop\_08 - Visual Studio Code

products.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart

lib > screens > user\_products\_screen.dart > UserProductsScreen

```
7 import 'edit_product_screen.dart';
8
9 class UserProductsScreen extends StatelessWidget {
10     static const routeName = '/user-products';
11
12     Future<void> _refreshProducts(BuildContext context) async {
13         await Provider.of<Products>(context, listen: false).fetchAndSetProducts();
14     }
15
16     @override
17     Widget build(BuildContext context) {
18         final productsData = Provider.of<Products>(context);
19         return Scaffold(
20             appBar: AppBar(
21                 title: const Text('Your Products'),
22                 actions: <Widget>[
23                     IconButton(
24                         icon: const Icon(Icons.add),
25                         onPressed: () {
26                             Navigator.of(context).pushNamed(EditProductScreen.routeName);
27                         },
28                     ), // IconButton
29                 ],
30             ),
31             body: RefreshIndicator(
32                 onRefresh: _refreshProducts,
33                 child: ListView.builder(
34                     itemCount: productsData.items.length,
35                     itemBuilder: (ctx, i) {
36                         return Card(
37                             child: ListTile(
38                                 title: Text(productsData.items[i].title),
39                                 subtitle: Text(productsData.items[i].description),
40                                 trailing: IconButton(
41                                     icon: const Icon(Icons.delete),
42                                     onPressed: () {
43                                         productsData.removeItem(i);
44                                         ScaffoldMessenger.of(context).showSnackBar(
45                                             SnackBar(content: Text('Item removed')));
46                                     },
47                                 ),
48                             ),
49                         );
50                     },
51                 ),
52             ),
53         );
54     }
55 }
```

screens\user\_products\_screen.dart

Ln 15, Col 1 (148 selected) Spaces: 2 UTF-8 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier



products.dart

products\_overview\_screen.dart

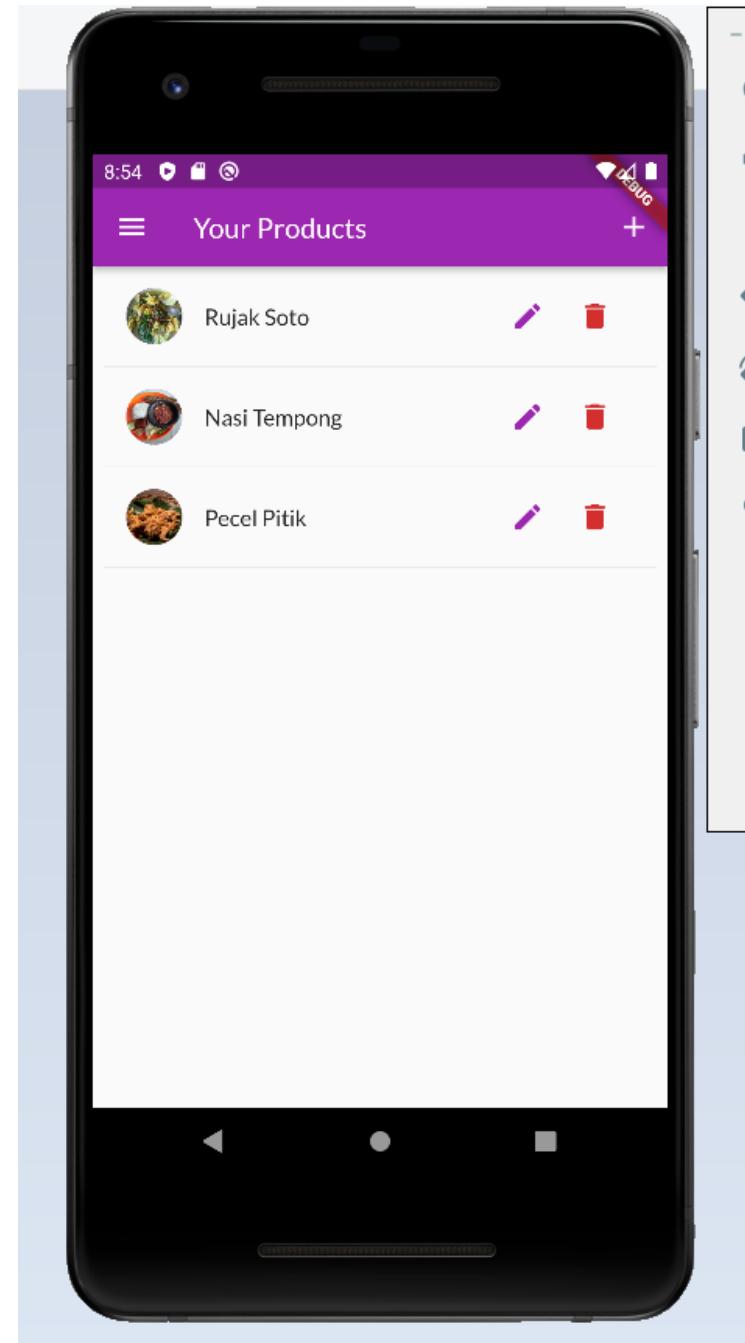
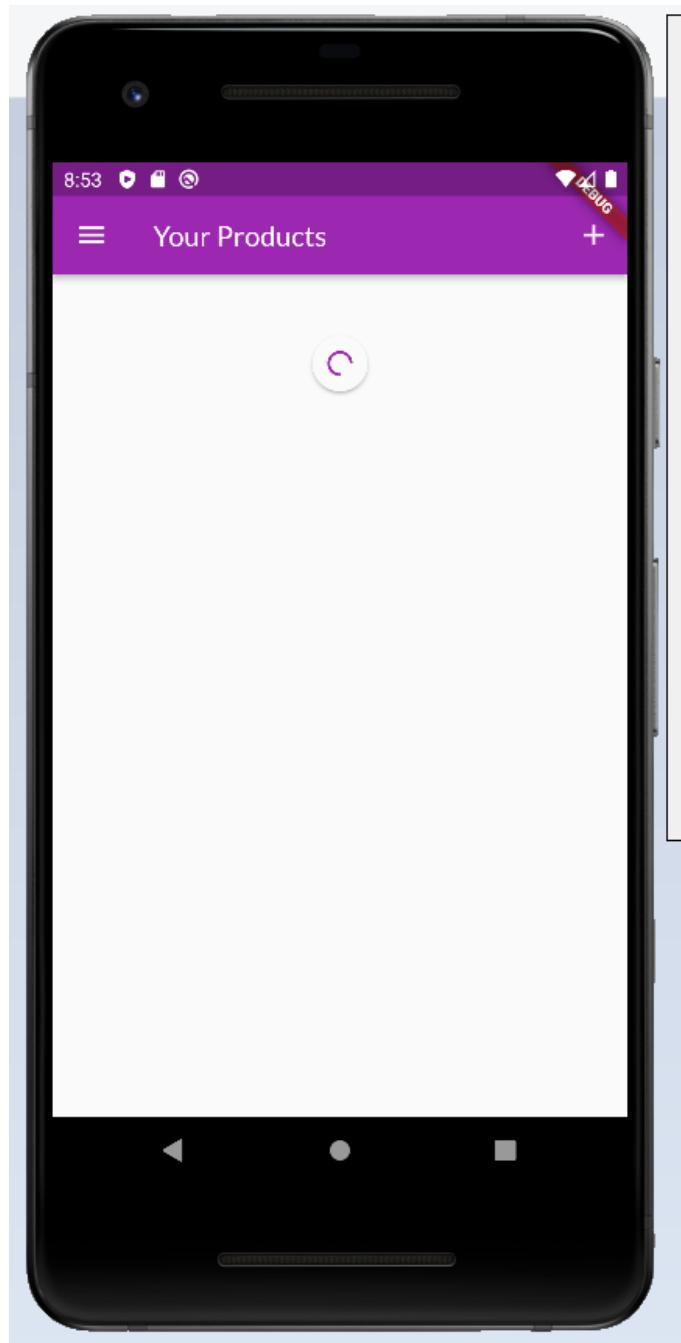
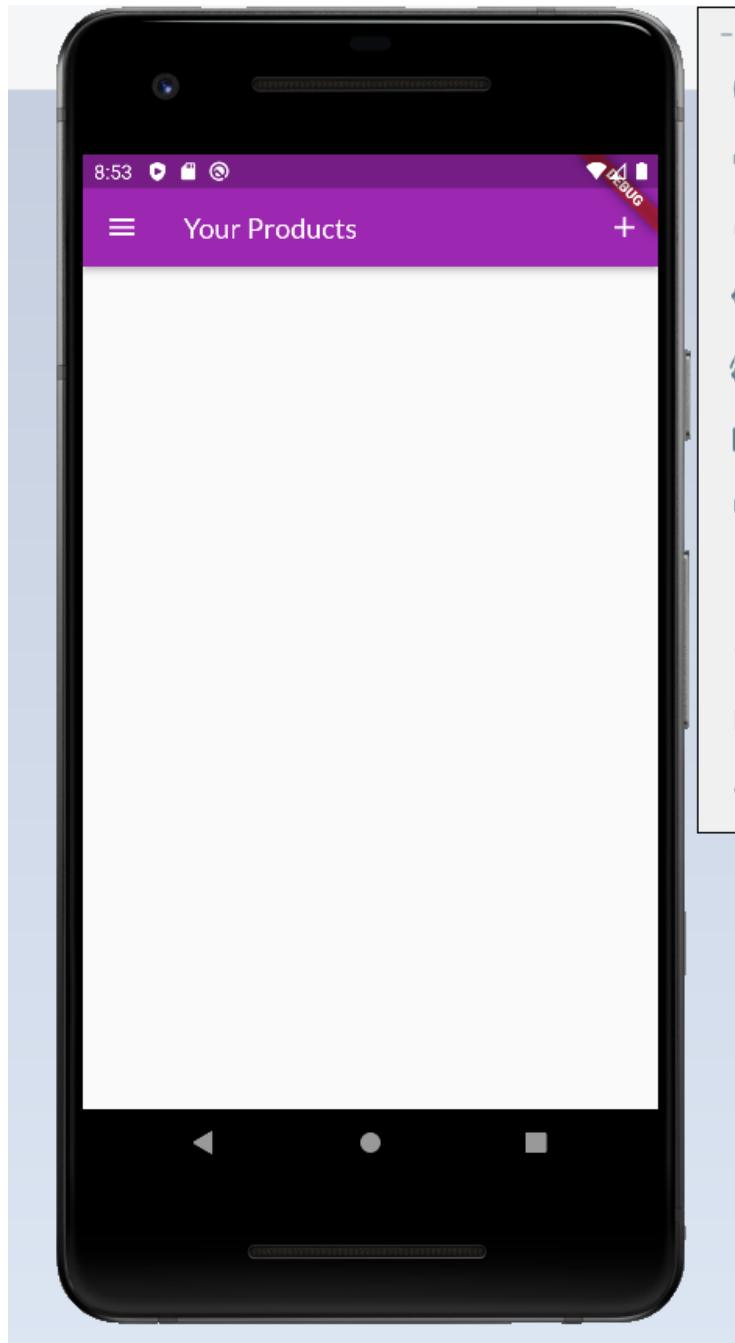
user\_products\_screen.dart X

edit\_product\_screen.dart

lib &gt; screens &gt; user\_products\_screen.dart &gt; UserProductsScreen &gt; build

```
31     drawer: AppDrawer(),
32     body: RefreshIndicator(
33       onRefresh: () => _refreshProducts(context),
34       child: Padding(
35         padding: EdgeInsets.all(8),
36         child: ListView.builder(
37           itemCount: productsData.items.length,
38           itemBuilder: (_, i) => Column(
39             children: [
40               UserProductItem(
41                 productsData.items[i].id,
42                 productsData.items[i].title,
43                 productsData.items[i].imageUrl,
44               ), // UserProductItem
45               Divider(),
46             ],
47           ), // Column
48         ), // ListView.builder
49       ), // Padding
50     ), // RefreshIndicator
51   ); // Scaffold
52 }
```

screens\user\_products\_screen.dart



# **UPDATING DATA USING PATCH REQUESTS**

products.dart X

products\_overview\_screen.dart

user\_products\_screen.dart

edit\_product\_screen.dart

lib &gt; providers &gt; products.dart &gt; Products

```
109     }
110
111     Future<void> updateProduct(String id, Product newProduct) async {
112       final prodIndex = _items.indexWhere((prod) => prod.id == id);
113       if (prodIndex >= 0) {
114         final url =
115             'https://belajar-flutter-61e82-default-firebaseio.com/products/$id.json';
116         await http.patch(Uri.parse(url),
117             body: json.encode({
118               'title': newProduct.title,
119               'description': newProduct.description,
120               'imageUrl': newProduct.imageUrl,
121               'price': newProduct.price
122             }));
123         _items[prodIndex] = newProduct;
124         notifyListeners();
125       } else {
126         print('...');
127       }
128     }
129
130     Future<void> deleteProduct(String id) async {
```

providers\products.dart



products.dart

products\_overview\_screen.dart

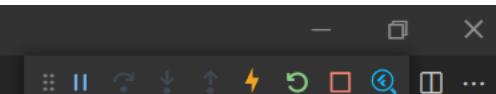
user\_products\_screen.dart

edit\_product\_screen.dart X

lib &gt; screens &gt; edit\_product\_screen.dart &gt; \_EditProductScreenState

```
88
89 Future<void> _saveForm() async {
90   final isValid = _form.currentState.validate();
91   if (!isValid) {
92     return;
93   }
94   _form.currentState.save();
95   setState(() {
96     _isLoading = true;
97   });
98   if (_editedProduct.id != null) {
99     await Provider.of<Products>(context, listen: false)
100       .updateProduct(_editedProduct.id, _editedProduct);
101 } else {
102   try {
103     await Provider.of<Products>(context, listen: false)
104       .addProduct(_editedProduct);
105   } catch (error) {
106     await showDialog(
107       context: context,
108       builder: (ctx) => AlertDialog(
109         title: Text('An error occurred!'),
```

screens\edit\_product\_screen.dart



products.dart

products\_overview\_screen.dart

user\_products\_screen.dart

edit\_product\_screen.dart X

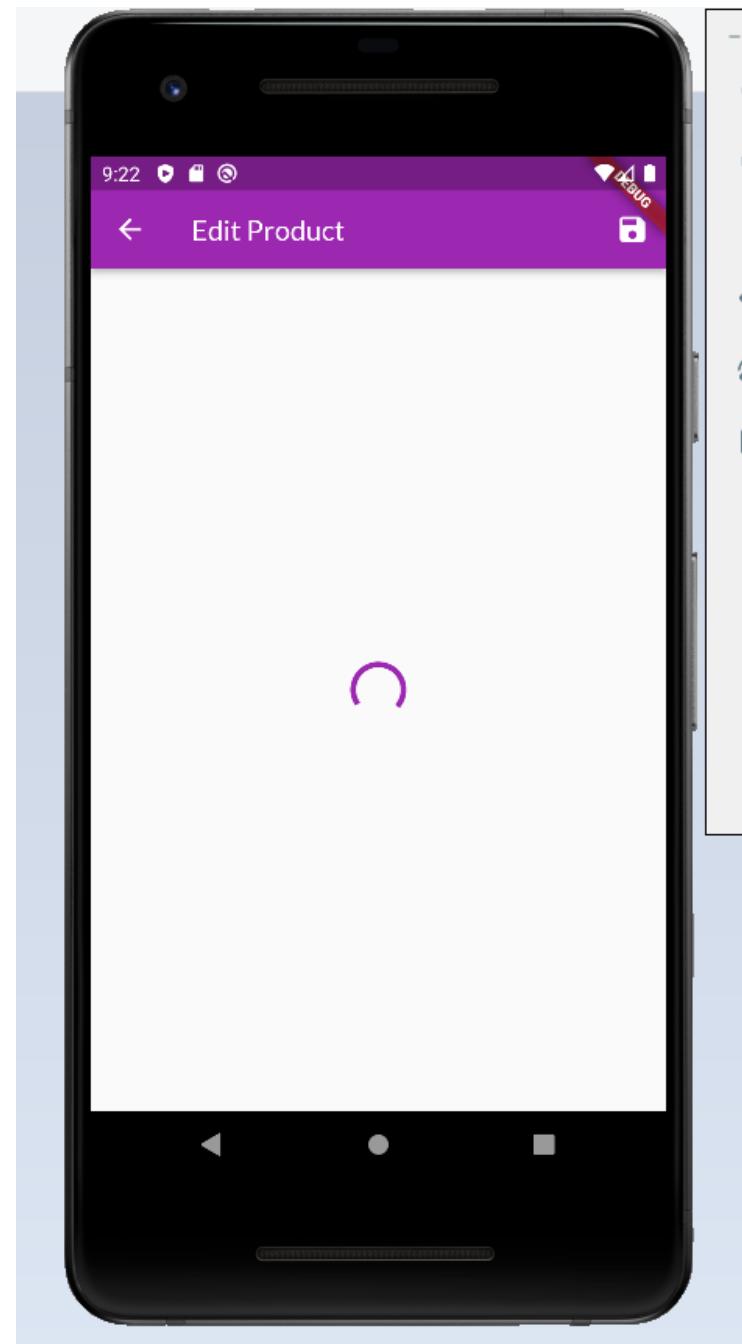
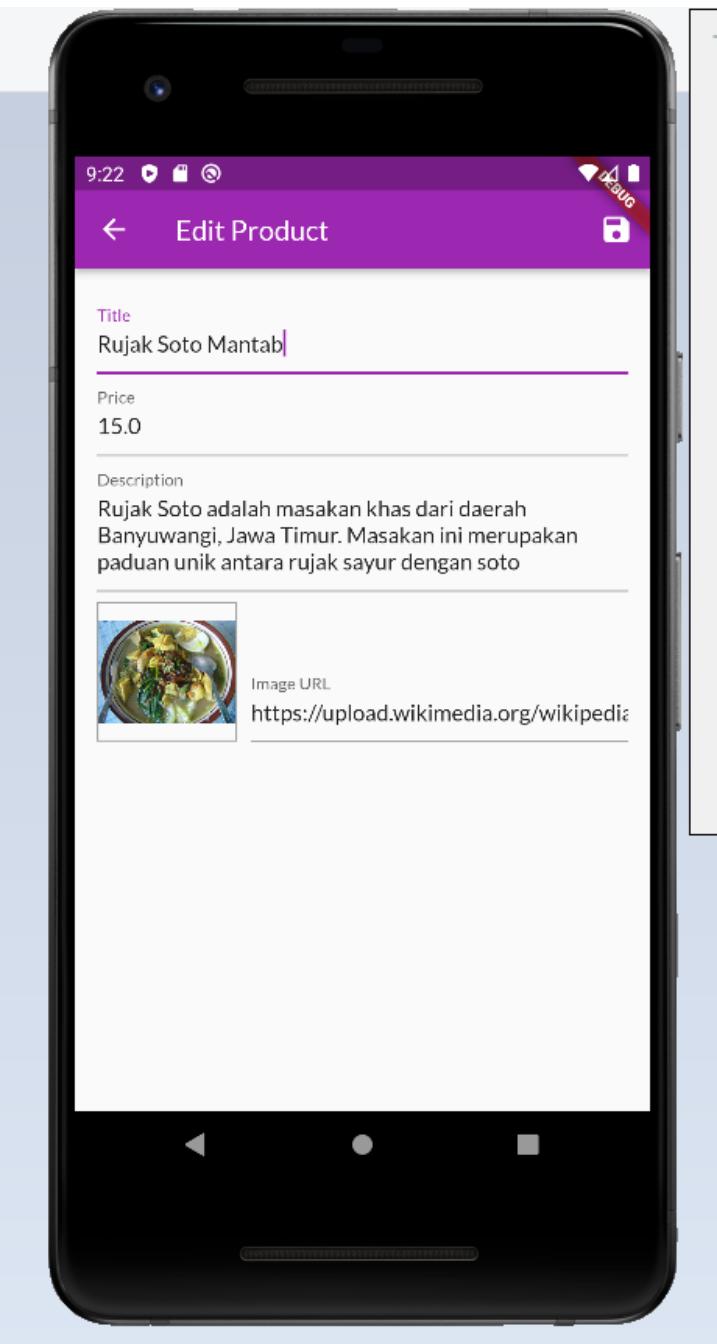
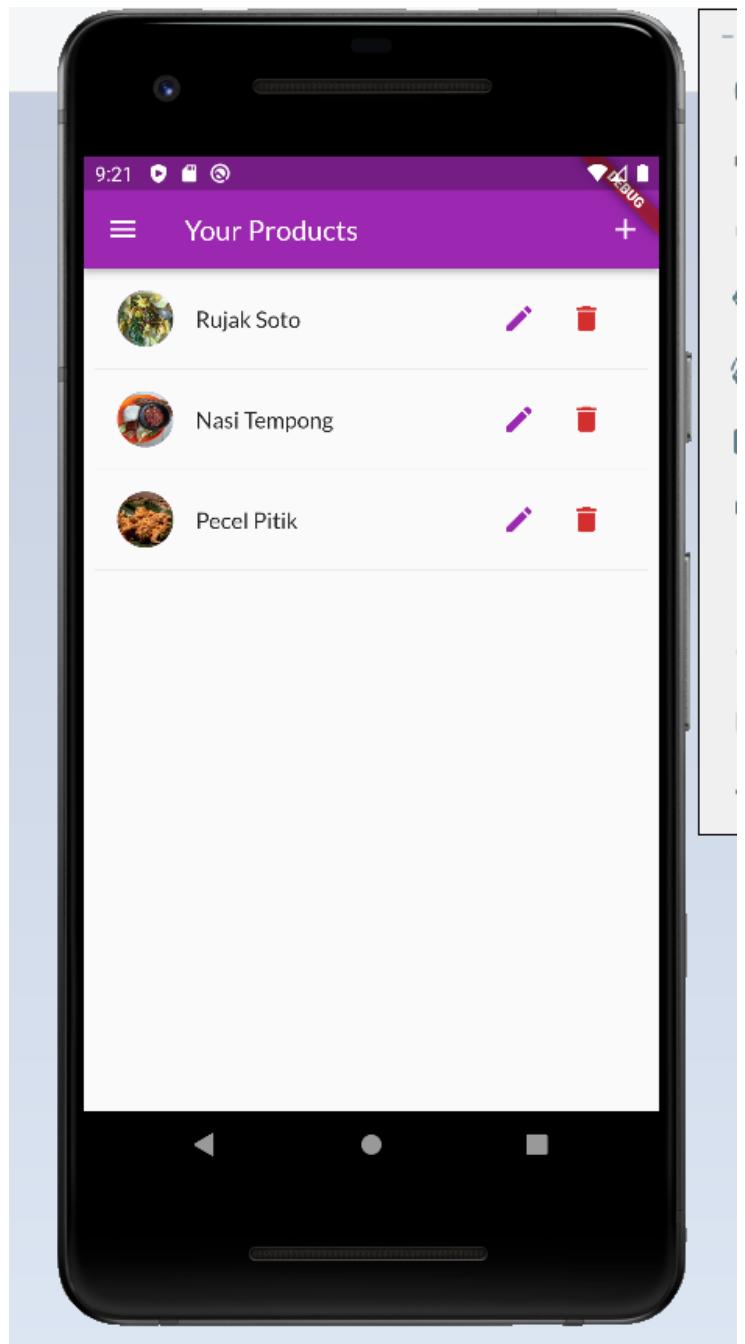
lib &gt; screens &gt; edit\_product\_screen.dart &gt; \_EditProductScreenState

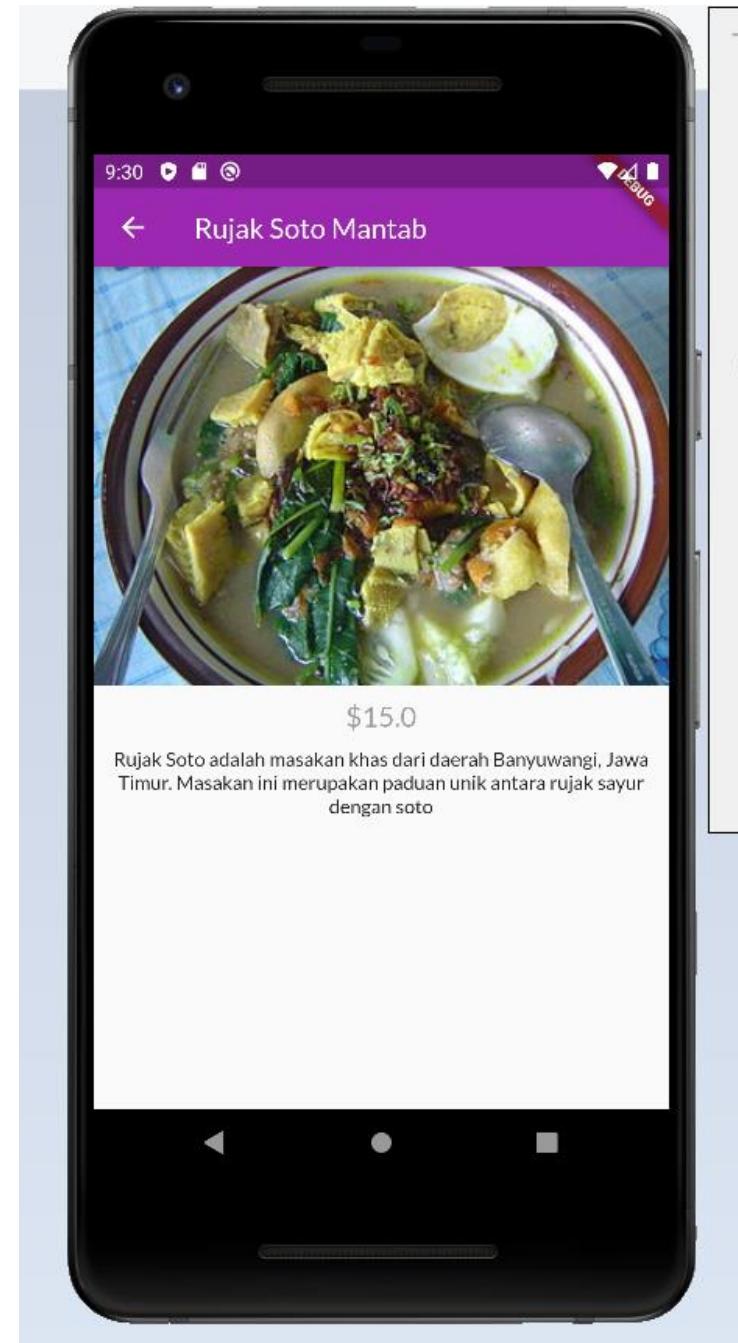
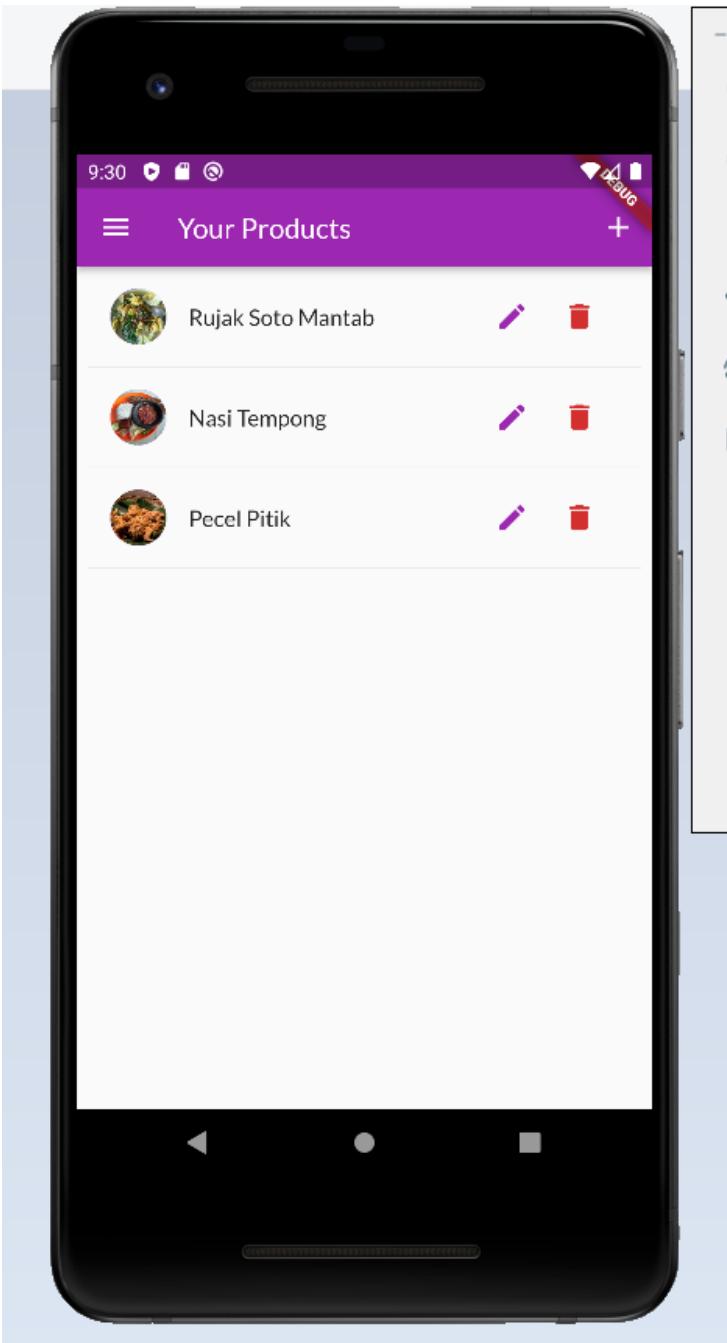
```
100     ..... .updateProduct(_editedProduct.id, _editedProduct);
101   } else {
102     try {
103       await Provider.of<Products>(context, listen: false)
104         .addProduct(_editedProduct);
105     } catch (error) {
106       await showDialog(
107         context: context,
108         builder: (ctx) => AlertDialog(
109           title: Text('An error occurred!'),
110           content: Text('Something went wrong.'),
111           actions: <Widget>[
112             FlatButton(
113               child: Text('Okay'),
114               onPressed: () {
115                 Navigator.of(ctx).pop();
116               },
117             ) // FlatButton
118           ], // <Widget>[]
119         ), // AlertDialog
120       );
121   }
```

screens\edit\_product\_screen.dart

```
lib > screens > edit_product_screen.dart > _EditProductScreenState
118     ..... ],
119     ..... ),
120     ..);
121   }
122   // finally {
123   //   setState(() {
124   //     // _isLoading = false;
125   //   });
126   //   Navigator.of(context).pop();
127   // }
128 }
129 setState(() {
130   _isLoading = false;
131 });
132 Navigator.of(context).pop();
133 }
134
135 @override
136 Widget build(BuildContext context) {
137   return Scaffold(
138     appBar: AppBar(
139       title: Text('Edit Product'),
```

## screens\edit\_product\_screen.dart





# **UTILIZING OPTIMISTIC UPDATING**



products.dart X

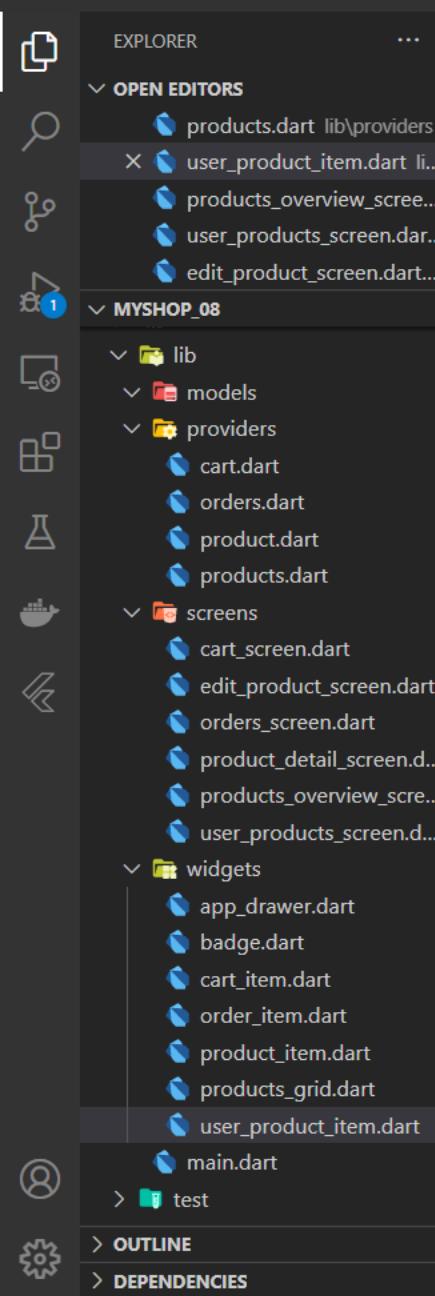
products\_overview\_screen.dart

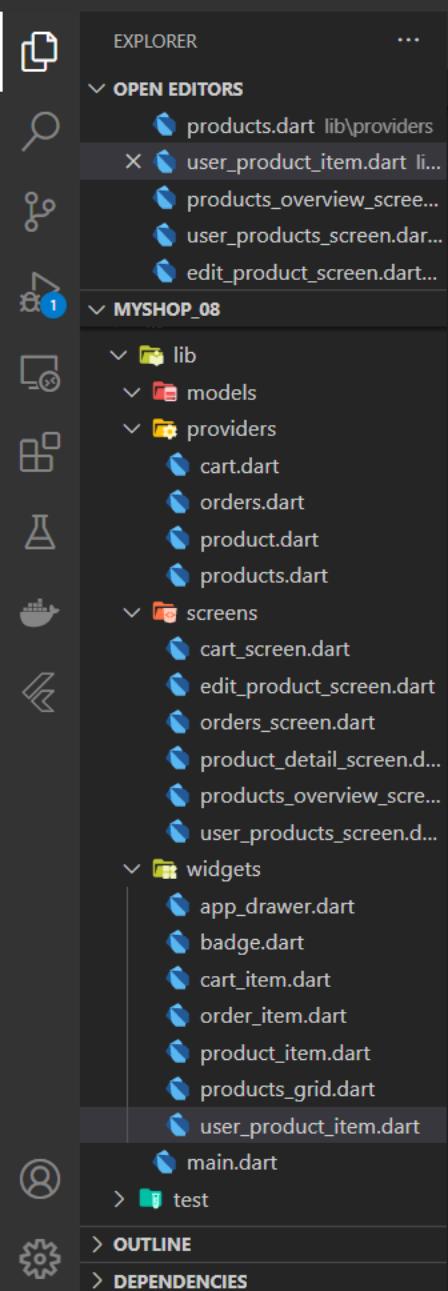
user\_products\_screen.dart

edit\_product\_screen.dart

```
lib > providers > products.dart > Products
126     |     print('...');  
127 }  
128 }  
129  
130 Future<void> deleteProduct(String id) async {  
131     final url =  
132         'https://belajar-flutter-61e82-default-firebase.com.firebaseio.com/products/$id.json';  
133     final existingProductIndex = _items.indexWhere((prod) => prod.id == id);  
134     var existingProduct = _items[existingProductIndex];  
135     _items.removeAt(existingProductIndex);  
136     notifyListeners();  
137     final response = await http.delete(Uri.parse(url));  
138     if (response.statusCode >= 400) {  
139         _items.insert(existingProductIndex, existingProduct);  
140         notifyListeners();  
141         throw HttpException('Could not delete product.');  
142     }  
143     existingProduct = null;  
144 }  
145 }  
146 }
```

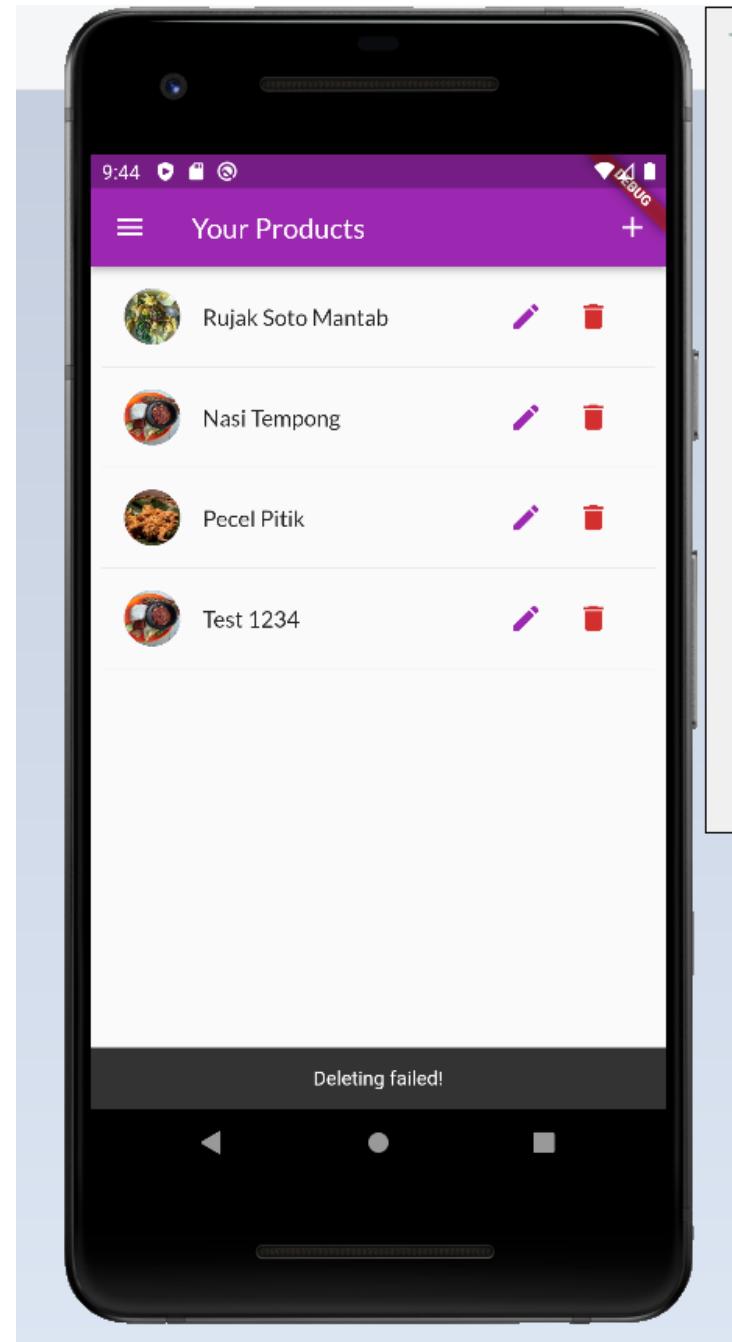
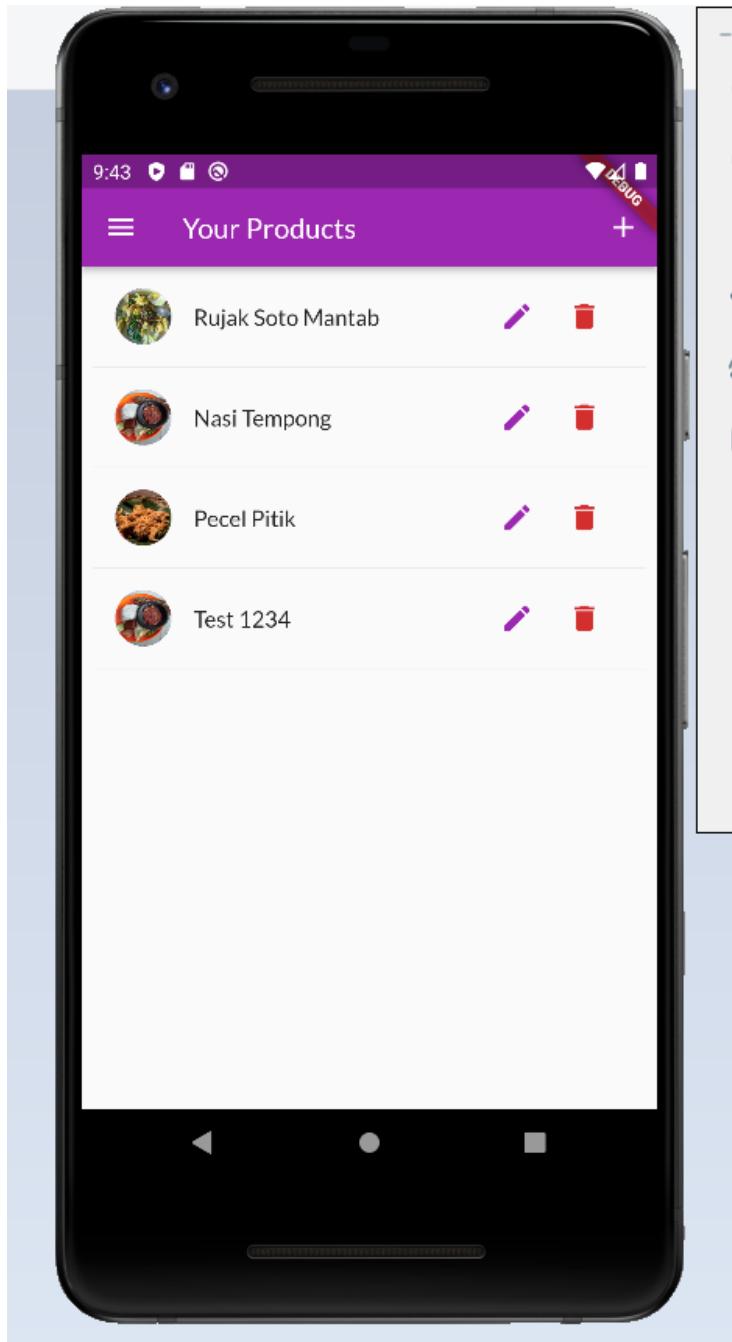
providers\products.dart





```
34         IconButton(
35             icon: Icon(Icons.delete),
36             onPressed: () async {
37                 try {
38                     await Provider.of<Products>(context, listen: false)
39                         .deleteProduct(id);
40                 } catch (error) {
41                     scaffold.showSnackBar(
42                         SnackBar(
43                             content: Text(
44                                 'Deleting failed!',
45                                 textAlign: TextAlign.center,
46                                 ),
47                                 // Text
48                                 ),
49                                 // Snackbar
50                                 );
51                 }
52             },
53             color: Theme.of(context).errorColor,
54             ),
55             // IconButton
56         ],
57         // <Widget>[]
58     ),
59     // Row
60 ),
61 // Container
```

## widgets\user\_product\_item.dart



# **UPDATING THE FAVORITE STATUS OPTIMISTICALLY**

File Edit Selection View Go Run Terminal Help

product.dart - myshop\_08 - Visual Studio Code

products.dart user\_product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart product.dart

lib > providers > product.dart > Product

```
6 class Product with ChangeNotifier {  
7     final String id;  
8     final String title;  
9     final String description;  
10    final double price;  
11    final String imageUrl;  
12    bool isFavorite;  
13  
14    Product({  
15        @required this.id,  
16        @required this.title,  
17        @required this.description,  
18        @required this.price,  
19        @required this.imageUrl,  
20        this.isFavorite = false,  
21    });  
22  
23    void _setFavValue(bool newValue) {  
24        isFavorite = newValue;  
25        notifyListeners();  
26    }  
27}
```

providers\product.dart

Ln 48, Col 1 (657 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier



products.dart

user\_product\_item.dart

products\_overview\_screen.dart

user\_products\_screen.dart

edit\_product\_screen.dart

product.dart



lib &gt; providers &gt; product.dart &gt; Product

```
27  
28     Future<void> toggleFavoriteStatus() async {  
29         final oldStatus = isFavorite;  
30         isFavorite = !isFavorite;  
31         notifyListeners();  
32         final url =  
33             'https://belajar-flutter-61e82-default-firebase.com.firebaseio.com/products/$id.json';  
34         try {  
35             final response = await http.patch(  
36                 Uri.parse(url),  
37                 body: json.encode({  
38                     'isFavorite': isFavorite,  
39                 }),  
40             );  
41             if (response.statusCode >= 400) {  
42                 _setFavValue(oldStatus);  
43             }  
44         } catch (error) {  
45             _setFavValue(oldStatus);  
46         }  
47     }  
48 }
```

providers\product.dart

belajar-flutter - Firebase console + https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database/belajar-flutter-61e82-default-rtbd/data Go to docs

Firebase Project Overview Build Authentication Firestore Database Realtime Database Storage Hosting Functions Machine Learning Release & Monitor Crashlytics, Performance, Test Lab, ... Analytics Dashboard, Realtime, Events, Conve... Engage Predictions, A/B Testing, Cloud Mes... Extensions Spark Free \$0/month Upgrade

## Realtime Database

Data Rules Backups Usage

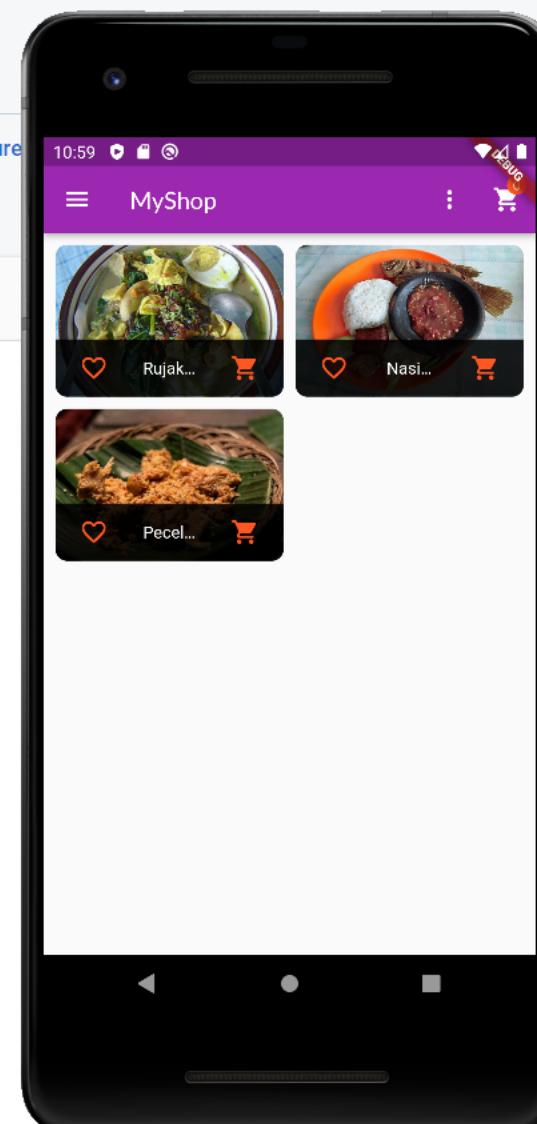
Protect your Realtime Database resources from abuse, such as billing fraud or phishing Configure

https://belajar-flutter-61e82-default-rtbd.firebaseio.com/

belajar-flutter-61e82-default-rtbd

- products
  - MpsNya6SuJLvayJbw35
    - description: "Rujak Soto adalah masakan khas dari daerah Bany...
    - imageUrl: "https://upload.wikimedia.org/wikipedia/id/thumb/...
    - isFavorite: false
    - price: 15
    - title: "Rujak Soto Mantab"
  - MpsQmKiMhZfw6iWngOm
    - description: "Nasi tempong atau akrab dengan sebutan Sego tempong..."
    - imageUrl: "https://upload.wikimedia.org/wikipedia/commons/...
    - isFavorite: false
    - price: 12.5
    - title: "Nasi Tempong"
  - MpsWpFOzOTliRAtp46i
    - description: "Pecel pitik adalah hidangan ayam khas suku Osing..."
    - imageUrl: "https://cdn.idntimes.com/content-images/communi..."
    - isFavorite: false

Database Location: United States (us-central1)



The screenshot shows the Firebase Realtime Database interface for a project named 'belajar-flutter'. The 'Data' tab is selected, showing a hierarchical database structure under the root. The 'products' node contains three items, each with a unique key and fields for description, image URL, price, title, and a boolean 'isFavorite' field. To the right of the database view, a smartphone displays a mobile application's product listing screen, which corresponds to the data in the database. The app has a purple header 'MyShop' and shows cards for 'Rujak Soto', 'Nasi Tempong', and 'Pecel pitik' with heart and shopping cart icons.

belajar-flutter - Firebase console +

https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database/belajar-flutter-61e82-default-rtdb/data

Firebase

Project Overview |

Build

- Authentication
- Firebase Database
- Realtime Database
- Storage
- Hosting
- Functions
- Machine Learning

Release & Monitor

Analytics

Engage

Extensions

Spark Free \$0/month Upgrade

belajar-flutter ▾

## Realtime Database

Data Rules Backups Usage

Protect your Realtime Database resources from abuse, such as billing fraud or phishing [Configure](#)

https://belajar-flutter-61e82-default-rtdb.firebaseio.com/

belajar-flutter-61e82-default-rtdb

- products
  - MpsNya6SuJLvayJbw35
    - description: "Rujak Soto adalah masakan khas dari daerah Bany...
    - imageUrl: "https://upload.wikimedia.org/wikipedia/id/thumb/...
    - isFavorite: true
    - price: 15
    - title: "Rujak Soto Mantab"
  - MpsQmKiMhZfw6iWngOm
    - description: "Nasi tempong atau akrab dengan sebutan Sego tem..."
    - imageUrl: "https://upload.wikimedia.org/wikipedia/commons/..."
    - isFavorite: false
    - price: 12.5
    - title: "Nasi Tempong"
  - MpsWpFOzOTliRAtp46i
    - description: "Pecel pitik adalah hidangan ayam khas suku Osin..."
    - imageUrl: "https://cdn.idntimes.com/content-images/communi..."
    - isFavorite: false

Database location: United States (us-central1)

The screenshot shows the Firebase Realtime Database interface for a project named 'belajar-flutter'. The 'Data' tab is selected, displaying a hierarchical database structure under the root. The 'products' node contains three child nodes: '-MpsNya6SuJLvayJbw35', '-MpsQmKiMhZfw6iWngOm', and '-MpsWpFOzOTliRAtp46i'. Each product node has properties: description, imageUrl, isFavorite (a boolean value), price, and title. The 'isFavorite' field is highlighted in orange for the first product. To the right of the database view, a smartphone displays a mobile application interface for 'MyShop'. The app shows a purple header with the title 'MyShop'. Below the header, there are three cards representing different food items: 'Rujak Soto' (with a heart and shopping cart icon), 'Nasi Tempong' (with a heart and shopping cart icon), and 'Pecel Pitik' (with a heart and shopping cart icon). The phone's status bar shows the time as 11:00 and various connectivity icons.

# **CREATING CUSTOM EXCEPTIONS AND MORE ERROR HANDLING**

# **STORING ORDERS IN THE WEB**

File Edit Selection View Go Run Terminal Help

orders.dart - myshop\_08 - Visual Studio Code

EXPLORER ... product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart product.dart orders.dart

lib > providers > orders.dart > ...

21  
22 class Orders with ChangeNotifier {  
23 List<OrderItem> \_orders = [];  
24  
25 List<OrderItem> get orders {  
26 return [...\_orders];  
27 }  
28  
29 Future<void> addOrder(List<CartItem> cartProducts, double total) async {  
30 const url =  
31 'https://belajar-flutter-61e82-default-firebaseio.com/orders.json';  
32 final timestamp = DateTime.now();  
33 final response = await http.post(  
34 Uri.parse(url),  
35 body: json.encode({  
36 'amount': total,  
37 'dateTime': timestamp.toIso8601String(),  
38 'products': cartProducts  
39 .map((cp) => {  
40 'id': cp.id,  
41 'title': cp.title,  
42 'quantity': cp.quantity,  
43 })  
44 }  
45 );  
46 }  
47 }

providers\orders.dart

LN 60, Col 1 (891 selected) Spaces: 2 UTF-8 CRLF Dart Dart Untitled - Paint 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help

orders.dart - myshop\_08 - Visual Studio Code

EXPLORER ... product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart product.dart orders.dart

lib > providers > orders.dart > ...

```
39     .map((cp) => {
40         'id': cp.id,
41         'title': cp.title,
42         'quantity': cp.quantity,
43         'price': cp.price,
44     })
45     .toList(),
46 ),
47 );
48 _orders.insert(
49     0,
50     OrderItem(
51         id: json.decode(response.body)[ 'name' ],
52         amount: total,
53         dateTime: timestamp,
54         products: cartProducts,
55     ),
56 );
57 notifyListeners();
58 }
59 }
```

providers\orders.dart

Ln 60, Col 1 (891 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help cart\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER 1 product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart product.dart orders.dart OPEN EDITORS 1 UNSAVED lib > screens > cart\_screen.dart > CartScreen > build

35 style: TextStyle( 36 color: 37 Theme.of(context).primaryTextTheme.headline1.color, 38 ), // TextStyle 39 ), // Text 40 backgroundColor: Theme.of(context).primaryColor, 41 ), // Chip 42 FlatButton( 43 child: Text('ORDER NOW'), 44 onPressed: 45 Provider.of(context).addOrder( 46 context, listen: false).addOrder( 47 toList(), 48 ); 49 cart. 50 }, 51 textCol 52 ) // Flat 53 ], // <Widg 54 ), // Row 55 ), // Padding 56 ), // Card

Remove this widget  
Move widget up  
Wrap with Builder  
Wrap with Center  
Wrap with Column  
Wrap with Container  
Wrap with Padding  
Wrap with Row  
Wrap with SizedBox  
Wrap with StreamBuilder  
Wrap with widget...  
Extract Method  
Extract Local Variable  
Extract Widget

screens\cart\_screen.dart

Ln 52, Col 20 (440 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier



## EXPLORER

OPEN EDITORS 1 UNSAVED

- products.dart lib\providers
- user\_product\_item.dart lib\...
- products\_overview\_scree...
- user\_products\_screen.dar...
- edit\_product\_screen.dart...
- product.dart lib\providers
- orders.dart lib\providers
- cart\_screen.dart lib\screens

MYSHOP\_08

- lib
- models
- providers
  - cart.dart
  - orders.dart
  - product.dart
  - products.dart
- screens
  - cart\_screen.dart
  - edit\_product\_screen.dart
  - orders\_screen.dart
  - product\_detail\_screen.d...
  - products\_overview\_scree...
  - user\_products\_screen.d...
- widgets
  - app\_drawer.dart
  - badge.dart
  - cart\_item.dart
  - order\_item.dart
  - product\_item.dart
  - products\_grid.dart

> OUTLINE

> DEPENDENCIES

## product\_item.dart

## product

## OrderButton

lib > screens > cart\_screen.dart

Enter a name for the widget (Press 'Enter' to confirm or 'Escape' to cancel)

```
      style: TextStyle(
        color:
          Theme.of(context).primaryTextTheme.headline1.color,
      ), // TextStyle
    ), // Text
    backgroundColor: Theme.of(context).primaryColor,
  ), // Chip
FlatButton(
  child: Text('ORDER NOW'),
  onPressed: () {
    Provider.of<Orders>(context, listen: false).addOrder(
      cart.items.values.toList(),
      cart.totalAmount,
    );
    cart.clear();
  },
  textColor: Theme.of(context).primaryColor,
) // FlatButton
], // <Widget>[]
), // Row
), // Padding
), // Card
```

screens\cart\_screen.dart

File Edit Selection View Go Run Terminal Help

cart\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart product.dart orders.dart

OPEN EDITORS 2 UNSAVED

products.dart lib\providers user\_product\_item.dart lib\providers products\_overview\_screen.dart user\_products\_screen.dart lib\providers edit\_product\_screen.dart lib\providers product.dart lib\providers orders.dart lib\providers cart\_screen.dart lib\screens

MYSHOP\_08

lib models providers cart.dart orders.dart product.dart products.dart screens cart\_screen.dart edit\_product\_screen.dart orders\_screen.dart product\_detail\_screen.dart products\_overview\_screen.dart user\_products\_screen.dart widgets app\_drawer.dart badge.dart cart\_item.dart order\_item.dart product\_item.dart products\_grid.dart

cart\_screen.dart

lib > screens > cart\_screen.dart > OrderButton

```
58     ), // ListView.builder
59     ) // Expanded
60   ], // <Widget>[]
61   ), // Column
62 ); // Scaffold
63 }
64 }
65
66 class OrderButton extends StatelessWidget {
67   const OrderButton({
68     Key key,
69     @required this.cart,
70   }) : super(key: key);
71
72   final Cart cart;
73
74   @override
75   Widget build(BuildContext context) {
76     return FlatButton(
77       child: Text('ORDER NOW'),
78       onPressed: () {
79         Provider.of<Orders>(context, listen: false).addOrder(
80           cart.items.values.toList()
81         );
82       },
83     );
84   }
85 }
```

Convert to StatefulWidget

screens\cart\_screen.dart

Ln 66, Col 42 (15 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help cart\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart product.dart orders... OPEN EDITORS 1 UNSAVED lib > screens > cart\_screen.dart > CartScreen > build

31 Spacer(),  
32 Chip(  
33 label: Text(  
34 '\$\\${cart.totalAmount}',  
35 style: TextStyle(  
36 color:  
37 Theme.of(context).primaryTextTheme.headline1.color,  
38 ), // TextStyle  
39 ), // Text  
40 backgroundColor: Theme.of(context).primaryColor,  
41 ), // Chip  
42 OrderButton(cart: cart)  
43 ], // <Widget>[]  
44 ), // Row  
45 ), // Padding  
46 ), // Card  
47 SizedBox(height: 10),  
48 Expanded(  
49 child: ListView.builder(  
50 itemCount: cart.items.length,  
51 itemBuilder: (ctx, i) => CartItem(screens\cart\_screen.dart  
52 cart.items.values.toList()[i].id,

Ln 43, Col 1 (43 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help cart\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart product.dart orders... OPEN EDITORS 1 UNSAVED lib > screens > cart\_screen.dart > CartScreen > build

31 Spacer(),  
32 Chip(  
33 label: Text(  
34 '\$\\${cart.totalAmount}',  
35 style: TextStyle(  
36 color:  
37 Theme.of(context).primaryTextTheme.headline1.color,  
38 ), // TextStyle  
39 ), // Text  
40 backgroundColor: Theme.of(context).primaryColor,  
41 ), // Chip  
42 OrderButton(cart: cart)  
43 ], // <Widget>[]  
44 ), // Row  
45 ), // Padding  
46 ), // Card  
47 SizedBox(height: 10),  
48 Expanded(  
49 child: ListView.builder(  
50 itemCount: cart.items.length,  
51 itemBuilder: (ctx, i) => CartItem(screens\cart\_screen.dart  
52 cart.items.values.toList()[i].id,

Ln 43, Col 1 (43 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help cart\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart product.dart orders... OPEN EDITORS 1 UNSAVED lib > screens > cart\_screen.dart > CartScreen > build

42 OrderButton(cart: cart) 43 ], // <Widget>[] 44 ), // Row 45 ), // Padding 46 ), // Card 47 SizedBox(height: 10), 48 Expanded( 49 child: ListView.builder( 50 itemCount: cart.items.length, 51 itemBuilder: (ctx, i) => CartItem( 52 cart.items.values.toList()[i].id, 53 cart.items.keys.toList()[i], 54 cart.items.values.toList()[i].price, 55 cart.items.values.toList()[i].quantity, 56 cart.items.values.toList()[i].title, 57 ), // CartItem 58 ), // ListView.builder 59 ) // Expanded 60 ], // <Widget>[] 61 ), // Column 62 ); // Scaffold 63 }

screens\cart\_screen.dart

Ln 43, Col 1 (43 selected) Spaces: 2 CRLF Dart Dart DevTool Untitled - Notepad Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help cart\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart product.dart orders... OPEN EDITORS 1 UNSAVED lib > screens > cart\_screen.dart > \_OrderButtonState

61 ), // Column  
62 ); // Scaffold  
63 }  
64 }  
65  
66 class OrderButton extends StatefulWidget {  
67 const OrderButton({  
68 Key key,  
69 @required this.cart,  
70 }) : super(key: key);  
71  
72 final Cart cart;  
73  
74 @override  
75 \_OrderButtonState createState() => \_OrderButtonState();  
76 }  
77  
78 class \_OrderButtonState extends State<OrderButton> {  
79 var \_isLoading = false;  
80  
81 @override  
82 Widget build(BuildContext context) {  
83 return FlatButton(

screens\cart\_screen.dart

LN 103, Col 2 (1046 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help cart\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart product.dart orders... lib > screens > cart\_screen.dart > \_OrderButtonState

1 OPEN EDITORS 1 UNSAVED

products.dart lib\providers user\_product\_item.dart lib\providers products\_overview\_screen.dart user\_products\_screen.dart lib\providers edit\_product\_screen.dart lib\providers product.dart lib\providers orders.dart lib\providers cart\_screen.dart lib\screens

MYSHOP\_08

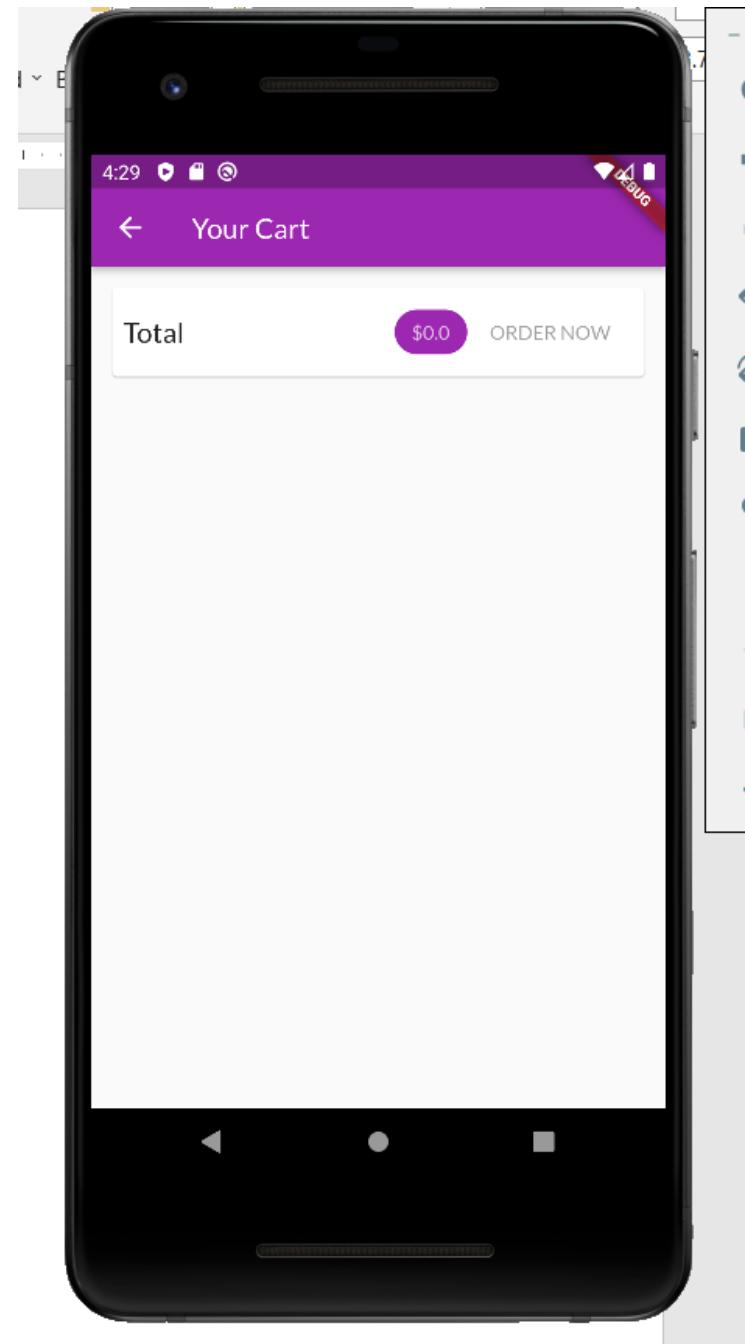
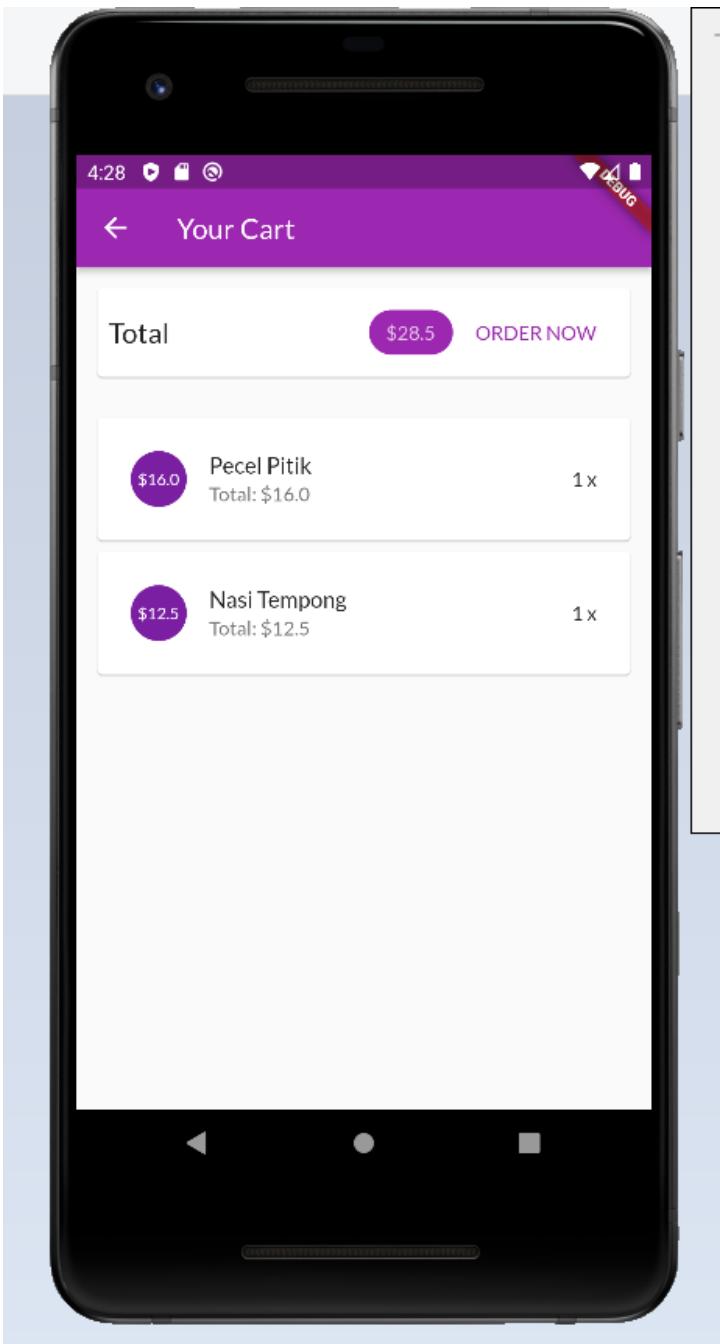
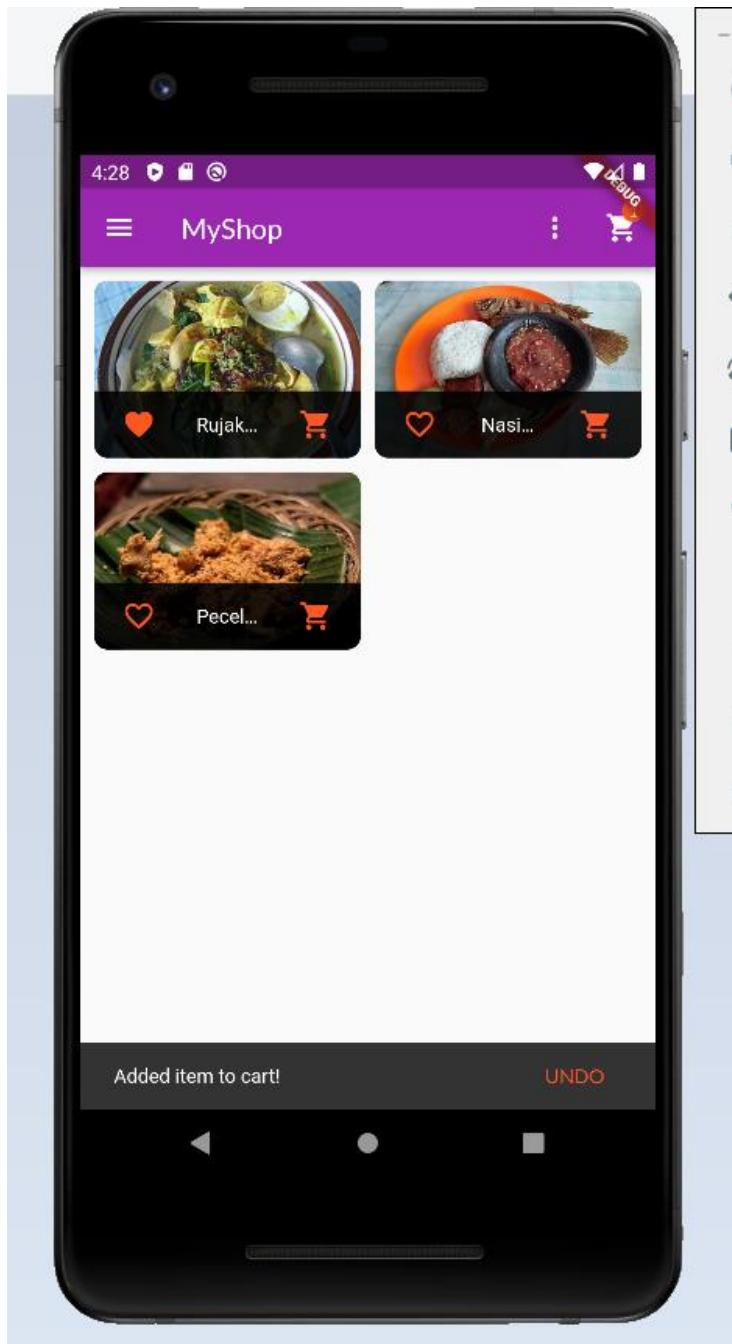
lib models providers cart.dart orders.dart product.dart products.dart screens cart\_screen.dart edit\_product\_screen.dart orders\_screen.dart product\_detail\_screen.dart products\_overview\_screen.dart user\_products\_screen.dart widgets app\_drawer.dart badge.dart cart\_item.dart order\_item.dart product\_item.dart products\_grid.dart

cart\_screen.dart

```
82     Widget build(BuildContext context) {  
83         return FlatButton(  
84             child: _isLoading ? CircularProgressIndicator() : Text('ORDER NOW'),  
85             onPressed: (widget.cart.totalAmount <= 0 || _isLoading)  
86                 ? null  
87                 : () async {  
88                 setState(() {  
89                     _isLoading = true;  
90                 });  
91                 await Provider.of<Orders>(context, listen: false).addOrder(  
92                     widget.cart.items.values.toList(),  
93                     widget.cart.totalAmount,  
94                 );  
95                 setState(() {  
96                     _isLoading = false;  
97                 });  
98                 widget.cart.clear();  
99             },  
100            textColor: Theme.of(context).primaryColor,  
101        ); // FlatButton  
102    }  
103 }
```

screens\cart\_screen.dart

Ln 103, Col 2 (1046 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier



belajar-flutter - Firebase console + https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database/belajar-flutter-61e82-default-rtbd/data

Firebase belajar-flutter ▾ Go to docs ?

Project Overview Build Authentication Firestore Database Realtime Database Storage Hosting Functions Machine Learning Release & Monitor Crashlytics, Performance, Test Lab, ... Analytics Dashboard, Realtime, Events, Conve... Engage Predictions, A/B Testing, Cloud Mes... Extensions Spark Free \$0/month Upgrade

## Realtime Database

Data Rules Backups Usage

Protect your Realtime Database resources from abuse, such as billing fraud or phishing Configure App Check

https://belajar-flutter-61e82-default-rtbd.firebaseio.com/

belajar-flutter-61e82-default-rtbd

- orders
  - Mpx2Id4EboNjoLSxhWM
    - amount: 28.5
    - dateTime: "2021-12-03T04:29:16.639763"
    - products
      - 0
        - id: "2021-12-03 04:28:35.309889"
        - price: 16
        - quantity: 1
        - title: "Pecel Pitik"
      - 1 + ×
        - id: "2021-12-03 04:28:53.483525"
        - price: 12.5
        - quantity: 1
        - title: "Nasi Tempong"
  - products
    - MpsNya6SuJLvayJbw35

Untitled - Notepad

# FETCHING ORDERS USING THE FUTUREBUILDER WIDGET

File Edit Selection View Go Run Terminal Help orders.dart - myshop\_08 - Visual Studio Code

EXPLORER ... product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart product.dart orders.dart

OPEN EDITORS lib > providers > orders.dart > Orders

products.dart lib\providers user\_product\_item.dart lib\providers products\_overview\_scree... user\_products\_screen.dar... edit\_product\_screen.dar... product.dart lib\providers orders.dart lib\providers cart\_screen.dart lib\screens

MYSHOP\_08 lib models providers cart.dart orders.dart product.dart products.dart screens cart\_screen.dart edit\_product\_screen.dart orders\_screen.dart product\_detail\_screen.d... products\_overview\_scre... user\_products\_screen.d... widgets app\_drawer.dart badge.dart cart\_item.dart order\_item.dart product\_item.dart products\_grid.dart

OUTLINE DEPENDENCIES

orders.dart

```
51     id: json.decode(response.body)[ 'name' ],
52     amount: total,
53     dateTime: timestamp,
54     products: cartProducts,
55   ),
56 );
57     notifyListeners();
58 }
59
60 Future<void> fetchAndSetOrders() async {
61   const url =
62       'https://belajar-flutter-61e82-default-firebaseio.com/orders.json';
63   final response = await http.get(Uri.parse(url));
64   final List<OrderItem> loadedOrders = [];
65   final extractedData = json.decode(response.body) as Map<String, dynamic>;
66   if (extractedData == null) {
67     return;
68   }
69   extractedData.forEach((orderId, orderData) {
70     loadedOrders.add(
71       OrderItem(
72         id: orderId,
73         amount: orderData[ 'amount' ] ) ) );
```

providers\orders.dart

File Edit Selection View Go Run Terminal Help orders.dart - myshop\_08 - Visual Studio Code

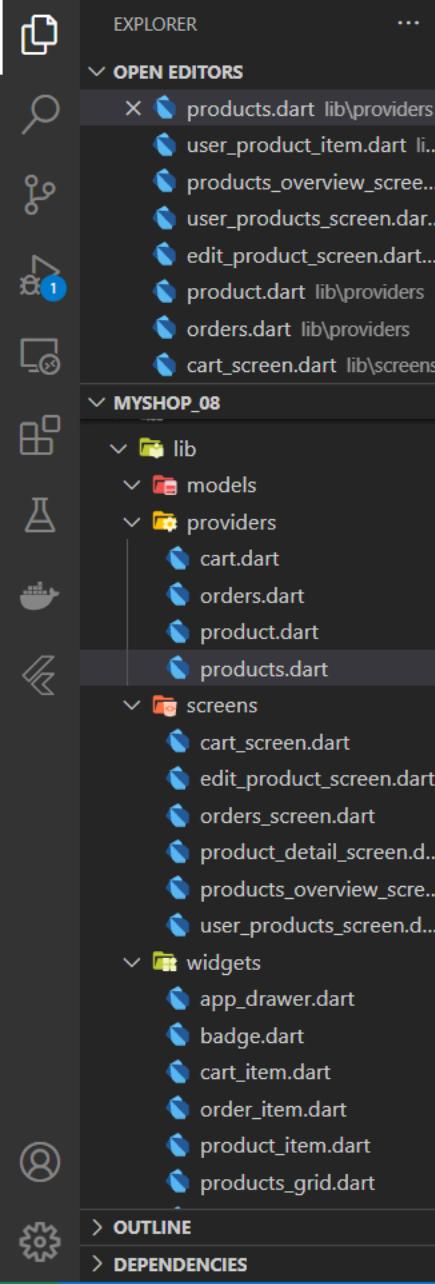
EXPLORER ... product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart product.dart orders.dart

lib > providers > orders.dart > Orders

```
OrderItem(  
    id: orderId,  
    amount: orderData['amount'],  
    dateTime: DateTime.parse(orderData['dateTime']),  
    products: (orderData['products'] as List<dynamic>)  
        .map(  
            (item) => CartItem(  
                id: item['id'],  
                price: item['price'],  
                quantity: item['quantity'],  
                title: item['title'],  
            ), // CartItem  
        )  
        .toList(),  
    ), // OrderItem  
);  
});  
_orders = loadedOrders.reversed.toList();  
notifyListeners();  
}  
}
```

providers\orders.dart

Ln 91, Col 1 (1051 selected) Spaces: 2 CRLF Dart Dart DevTool Untitled - Notepad Flutter Emulator (android-x86 emulator) Prettier



```
Future<void> fetchAndSetProducts() async {
  const url =
    'https://belajar-flutter-61e82-default-firebase.com/products.json';
  try {
    final response = await http.get(Uri.parse(url));
    final extractedData = json.decode(response.body) as Map<String, dynamic>;
    if (extractedData == null) {
      return;
    }
    final List<Product> loadedProducts = [];
    extractedData.forEach((prodId, prodData) {
      loadedProducts.add(Product(
        id: prodId,
        title: prodData['title'],
        description: prodData['description'],
        price: prodData['price'],
        isFavorite: prodData['isFavorite'],
        imageUrl: prodData['imageUrl'],
      ));
    });
    _items = loadedProducts;
  } catch (e) {
    print(e);
  }
}
```

## providers\products.dart

File Edit Selection View Go Run Terminal Help orders\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ... orders\_screen.dart user\_product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart

lib > screens > orders\_screen.dart > OrdersScreen > build

```
8 class OrdersScreen extends StatelessWidget {  
9     static const routeName = '/orders';  
10  
11    @override  
12    Widget build(BuildContext context) {  
13        print('building orders');  
14        // final orderData = Provider.of<Orders>(context);  
15        return Scaffold(  
16            appBar: AppBar(  
17                title: Text('Your Orders'),  
18            ), // AppBar  
19            drawer: AppDrawer(),  
20            body: FutureBuilder(  
21                future: Provider.of<Orders>(context, listen: false).fetchAndSetOrders(),  
22                builder: (ctx, dataSnapshot) {  
23                    if (dataSnapshot.connectionState == ConnectionState.waiting) {  
24                        return Center(child: CircularProgressIndicator());  
25                    } else {  
26                        if (dataSnapshot.error != null) {  
27                            // Do error handling stuff  
28                            return Center(  
29                                child: Text('An error occurred!'));
```

screens\orders\_screen.dart

0 △ 0 0 118 Debug my code Ln 42, Col 1 (849 selected) Spaces: 2 UTF-8 CRLF Dart Dart DevTool Untitled - Notepad Flutter Emulator (android-x86 emulator) Prettier

File Edit Selection View Go Run Terminal Help

orders\_screen.dart - myshop\_08 - Visual Studio Code

EXPLORER ...

OPEN EDITORS

- products.dart lib\providers
- orders\_screen.dart lib\scr...
- user\_product\_item.dart
- products\_overview\_scre...
- user\_products\_screen.dar...
- edit\_product\_screen.dart...
- product.dart lib\providers
- orders.dart lib\providers
- cart\_screen.dart lib\screens

MYSHOP\_08

- lib
- models
- providers
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  - product.dart
  - products.dart
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  - app\_drawer.dart
  - badge.dart
  - cart\_item.dart
  - order\_item.dart
  - product\_item.dart

OUTLINE

DEPENDENCIES

orders\_screen.dart X user\_product\_item.dart products\_overview\_screen.dart user\_products\_screen.dart edit\_product\_screen.dart

lib > screens > orders\_screen.dart > OrdersScreen > build

```
23     if (dataSnapshot.connectionState == ConnectionState.waiting) {  
24         return Center(child: CircularProgressIndicator());  
25     } else {  
26         if (dataSnapshot.error != null) {  
27             // Do error handling stuff  
28             return Center(  
29                 child: Text('An error occurred!'),  
30             ); // Center  
31         } else {  
32             return Consumer<Orders>(  
33                 builder: (ctx, orderData, child) => ListView.builder(  
34                     itemCount: orderData.orders.length,  
35                     itemBuilder: (ctx, i) => OrderItem(orderData.orders[i]),  
36                 ), // ListView.builder  
37             ); // Consumer  
38         }  
39     }  
40 },  
41 ), // FutureBuilder  
42 ); // Scaffold  
43 }  
44 }
```

screens\orders\_screen.dart

Ln 42, Col 1 (849 selected) Spaces: 2 CRLF Dart Dart DevTools Flutter: 2.5.3 Flutter Emulator (android-x86 emulator) Prettier

belajar-flutter - Firebase console + https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database/belajar-flutter-61e82-default-rtbd/data

Firebase belajar-flutter ▾ Go to docs ?

Project Overview Build Authentication Firestore Database Realtime Database Storage Hosting Functions Machine Learning Release & Monitor Crashlytics, Performance, Test Lab, ... Analytics Dashboard, Realtime, Events, Conve... Engage Predictions, A/B Testing, Cloud Mes... Extensions Spark Free \$0/month Upgrade

## Realtime Database

Data Rules Backups Usage

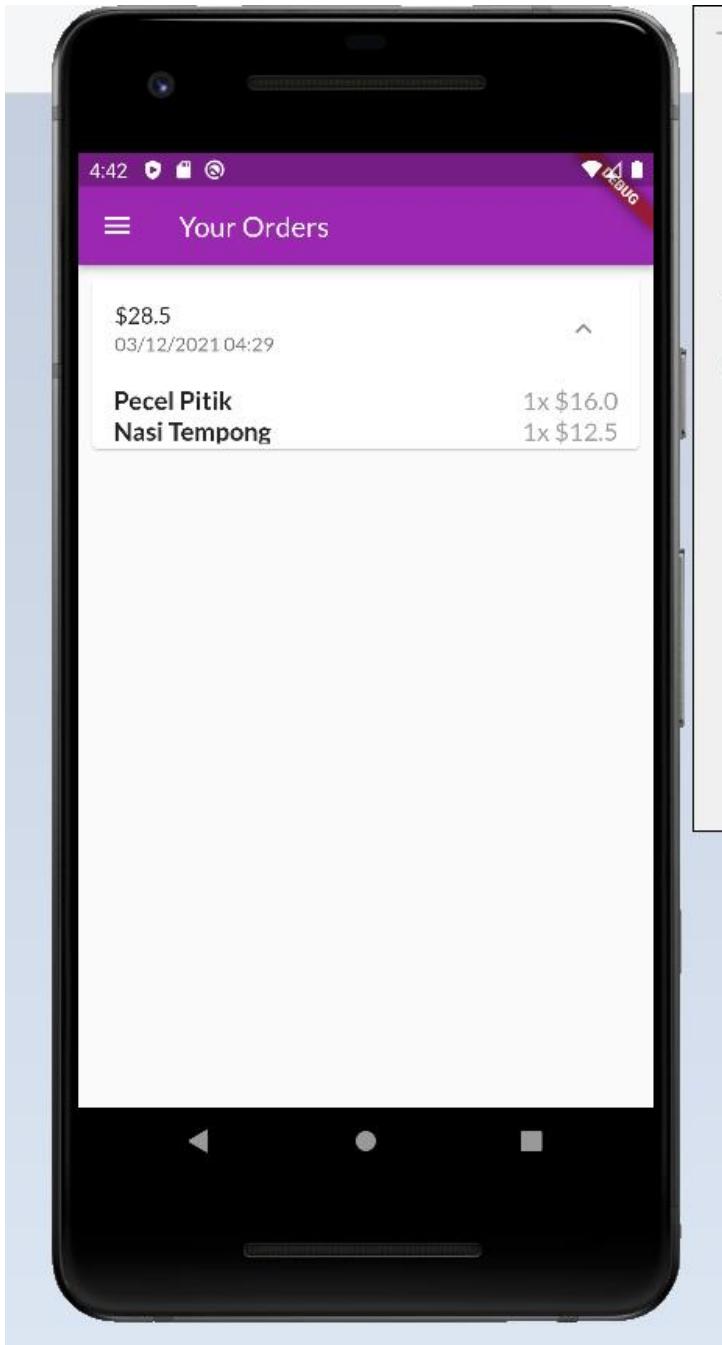
Protect your Realtime Database resources from abuse, such as billing fraud or phishing Configure App Check

https://belajar-flutter-61e82-default-rtbd.firebaseio.com/

belajar-flutter-61e82-default-rtbd

- orders
  - Mpx2Id4EboNjoLSxhWM
    - amount: 28.5
    - dateTime: "2021-12-03T04:29:16.639763"
    - products
      - 0
        - id: "2021-12-03 04:28:35.309889"
        - price: 16
        - quantity: 1
        - title: "Pecel Pitik"
      - 1 + ×
        - id: "2021-12-03 04:28:53.483525"
        - price: 12.5
        - quantity: 1
        - title: "Nasi Tempong"
  - products
    - MpsNya6SuJLvayJbw35

Database location: United States (us-central1)



belajar-flutter – Firebase console +

https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database/belajar-flutter-61e82-default-rtbd/data

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## Realtime Database

Data Rules Backups Usage

Protect your Realtime Database resources from abuse, such as billing fraud or phishing Configure App Check

https://belajar-flutter-61e82-default-rtbd.firebaseio.com/ + - ⋮

Delete data

All data at this location, including nested data, will be permanently deleted

Data location /orders/-Mpx2Id4EboNjoLSXhWM

To delete data without seeing this message, hold shift + click when deleting a node.

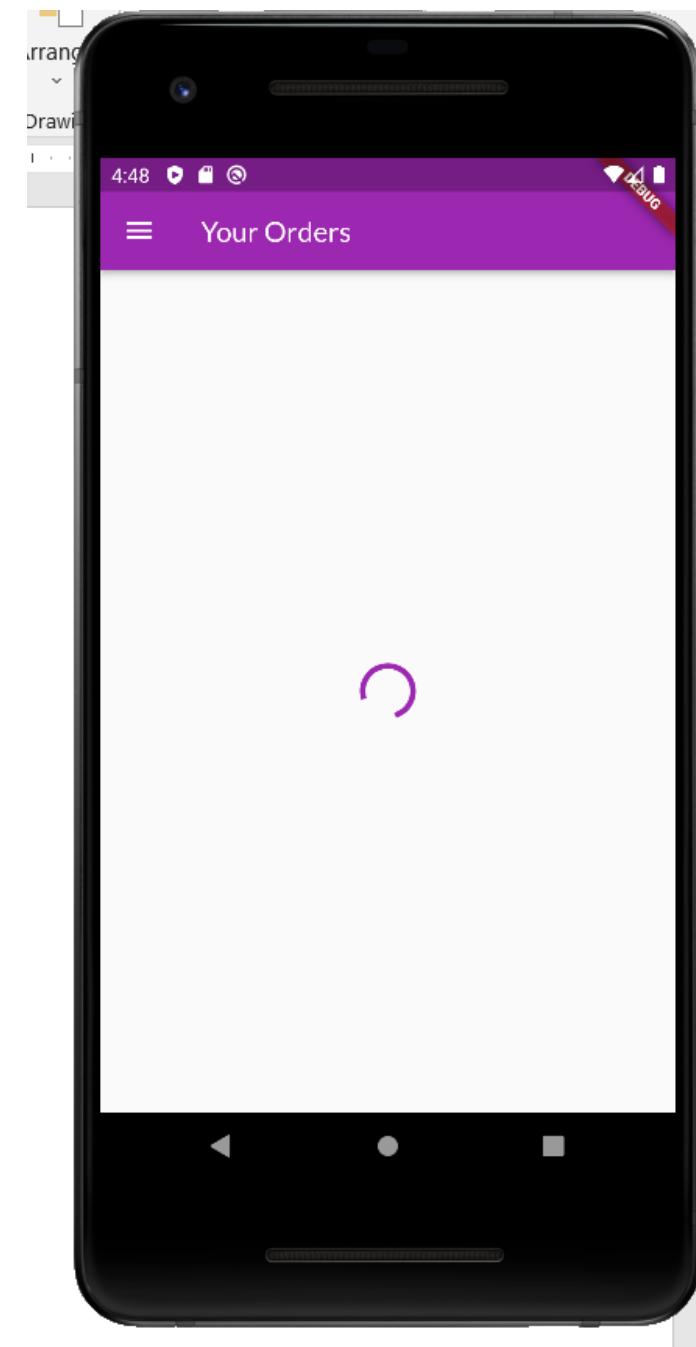
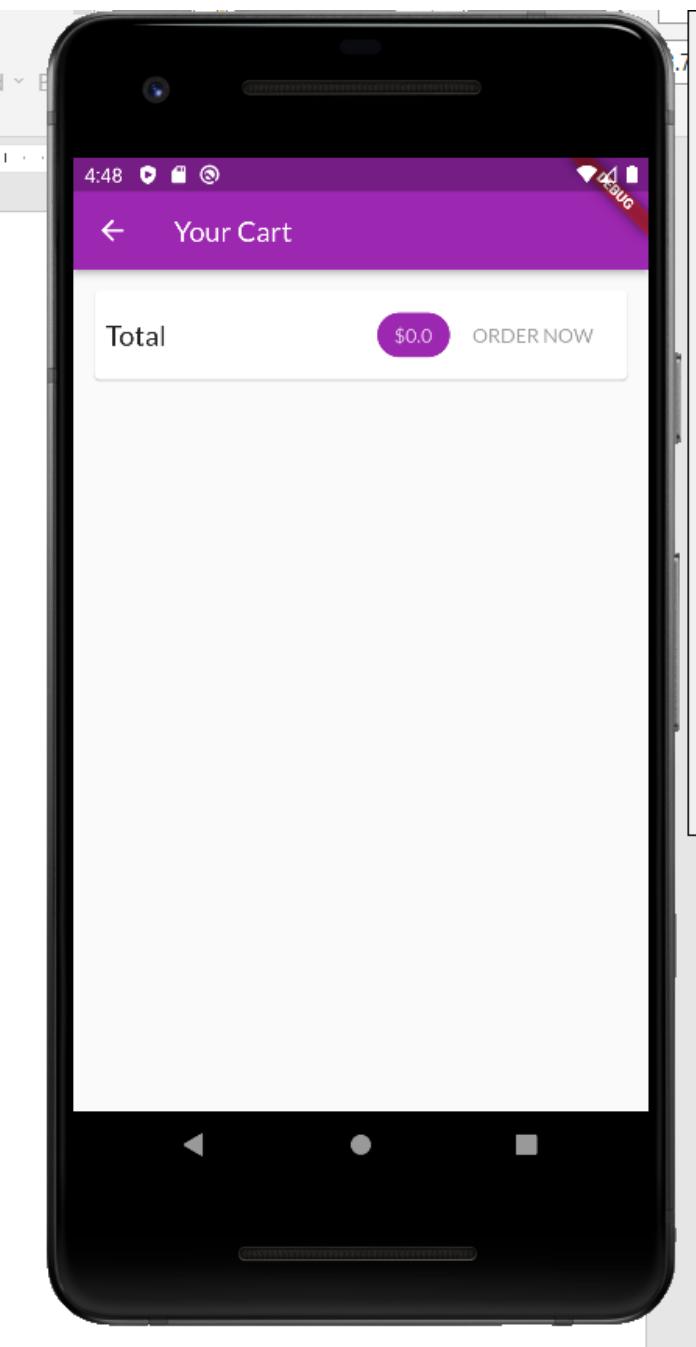
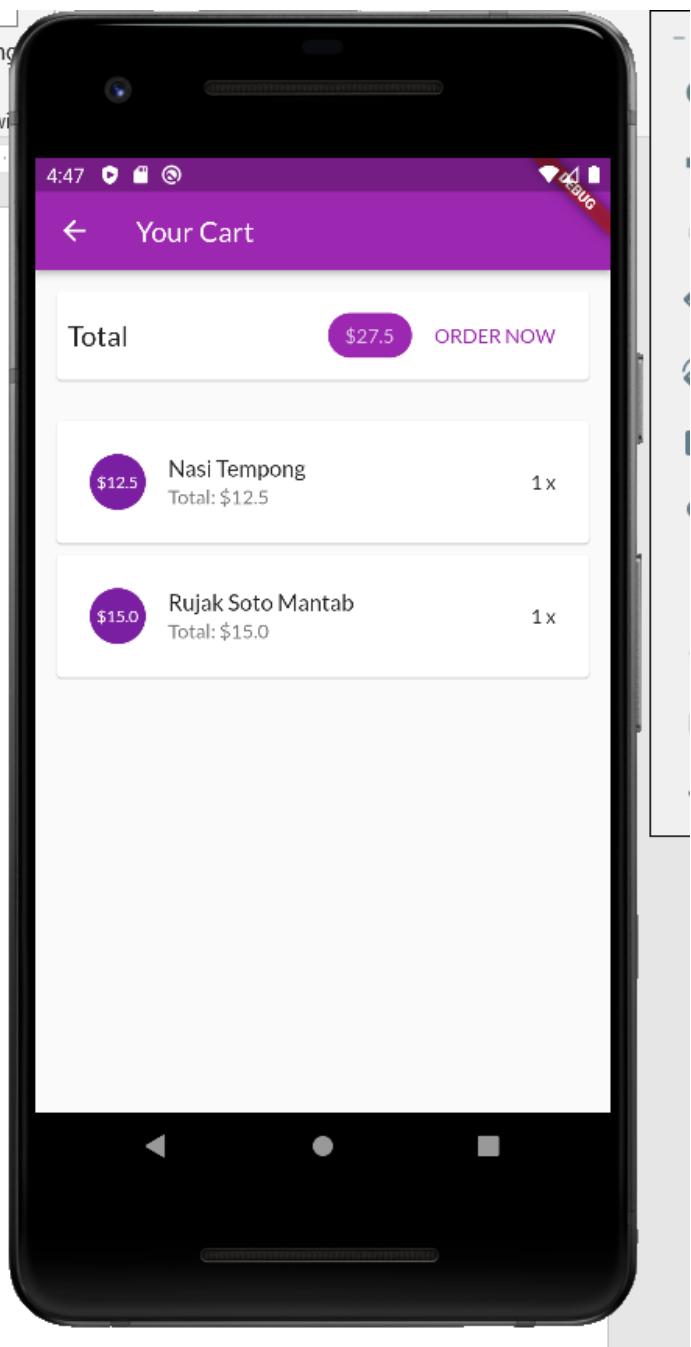
Cancel Delete

quantity: 1  
title: "Pecel Pitik"  
id: "2021-12-03 04:28:53.483525"  
price: 12.5  
quantity: 1  
title: "Nasi Tempong"

products  
-MpsNya6SuJLvayJbw35

Database location: United States (us-central1)





belajar-flutter - Firebase console +

https://console.firebaseio.google.com/u/0/project/belajar-flutter-61e82/database/belajar-flutter-61e82-default-rtbd/data

Firebase belajar-flutter ▾ Go to docs ?

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## Realtime Database

Data Rules Backups Usage

Protect your Realtime Database resources from abuse, such as billing fraud or phishing Configure App Check

https://belajar-flutter-61e82-default-rtbd.firebaseio.com/

belajar-flutter-61e82-default-rtbd

- orders
  - Mpx6cQtQ2j8cC3RFmA-
    - amount: 27.5
    - dateTime: "2021-12-03T04:48:10.347782"
    - products
      - 0
        - id: "2021-12-03 04:47:49.406793"
        - price: 12.5
        - quantity: 1
        - title: "Nasi Tempong"
      - 1
        - id: "2021-12-03 04:47:51.612393"
        - price: 15
        - quantity: 1
        - title: "Rujak Soto Mantab"
  - products
    - MpsNya6SuJLvayJbw35

