

TUGAS 07
PRAK08 Bistro App



Praktikum Pemrograman Berbasis Web - A

Nama :

Adelia Nurlina Putri

4521210059

PROGRAM STUDI S1 TEKNIK INFORMATIKA

FAKULTAS TEKNIK

UNIVERSITAS PANCASILA

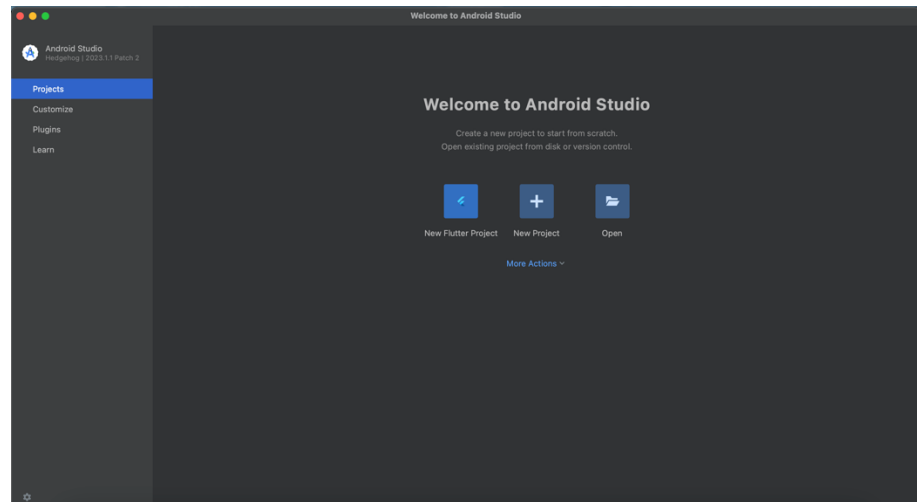
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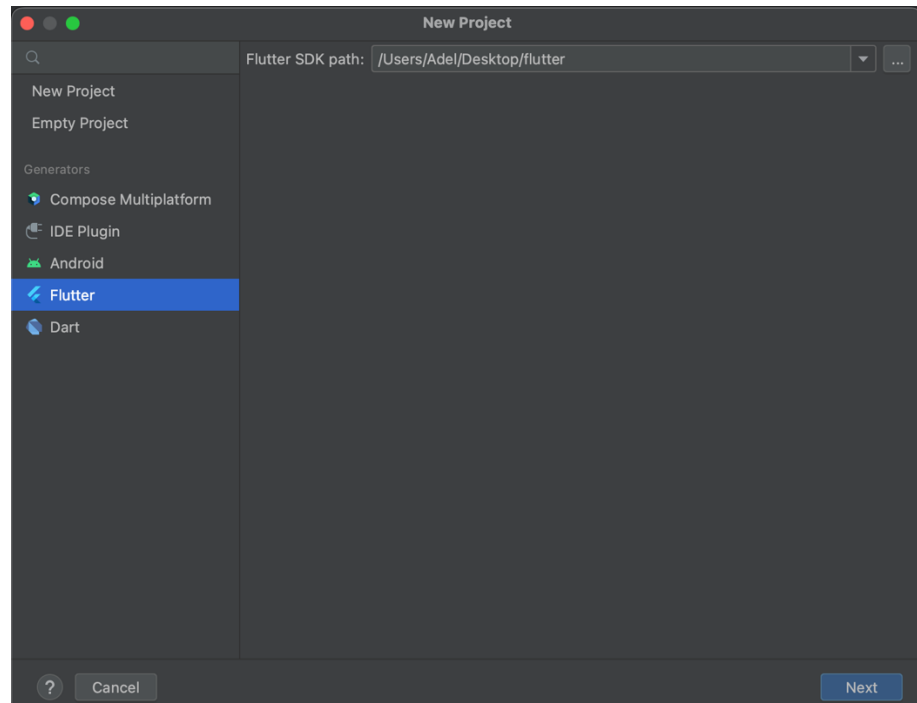
A. Project prak08

a. First Initialization

1. Akses web <https://docs.flutter.dev/ui/layout/tutorial>
2. Buka Android Studio



3. Pilih New Flutter Project -> Flutter -> Next



4. Isi form untuk nama project, tempat project, type, bahasa pemrograman, platforms dan lainnya -> Create

The screenshot shows the 'New Project' dialog in Android Studio. The form is filled with the following values:

- Project name: prak08
- Project location: ~/AndroidStudioProjects/prak08
- Description: A new Flutter project.
- Project type: Application
- Organization: com.example
- Android language: Kotlin
- iOS language: Swift
- Platforms: ☒ Android ☒ iOS ☐ Linux ☐ MacOS ☒ Web ☐ Windows
- When created, the new project will run on the selected platforms (others can be added later).
- ☐ Create project offline
- More Settings:
 - Module name: prak08
 - Content root: /Users/Adel/AndroidStudioProjects/prak08
 - Module file location: /Users/Adel/AndroidStudioProjects/prak08
 - Project format: .idea (directory-based)

Buttons at the bottom include: ? Cancel Previous Create

b. Membuat Ap

1. File main.dart

```
import 'package:flutter/material.dart';
import 'package:flutter/services.dart';
import 'package:http/http.dart';
import 'package:url_launcher/url_launcher.dart';

void main() {
  runApp(const MyApp());
}

class MyApp extends StatelessWidget {
  const MyApp({Key? key}) : super(key: key);

  // This widget is the root of your application.
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Praktikum Flutter Adelia Nurlina Putri',
      theme: ThemeData(
        primarySwatch: Colors.blue,
      ),
    ),
  ),
}
```

```

        home: const MyHomePage(),
      );
    }
  }

class MyHomePage extends StatelessWidget {
  const MyHomePage({Key? key}) : super(key: key);

  @override
  Widget build(BuildContext context) {
    // This method is rerun every time setState is
    // called, for instance as done
    // by the _incrementCounter method above.
    //
    // The Flutter framework has been optimized to
    // make rerunning build methods
    // fast, so that you can just rebuild anything
    // that needs updating rather
    // than having to individually change instances of
    // widgets.
    return Scaffold(
      appBar: AppBar(
        // Here we take the value from the MyHomePage
        // object that was created by
        // the App.build method, and use it to set our
        // appbar title.
        title: const Text('Home'),
      ),
      body: Center(
        // Center is a layout widget. It takes a
        // single child and positions it
        // in the middle of the parent.
        child: Column(
          mainAxisAlignment: MainAxisAlignment.center,
          children: <Widget>[
            const Text(
              'Selamat datang do Praktikum Flutter',
            ),
            SizedBox(height: 20),
            ElevatedButton(onPressed: () {
              Navigator.push(
                context,
                MaterialPageRoute(builder: (context)
=> const MenuPage()),
              );
            },
            child: const Text('Menu'),
          ),
            ElevatedButton(

```

```

        onPressed: () {
          Navigator.push(
            context,
            MaterialPageRoute(builder: (context)
=> const AboutPage()),
          );
        },
        child: const Text('About'),
      ),
    ],
  ),
);
}
}

class MenuPage extends StatelessWidget {
  const MenuPage ({Key? key}) : super(key: key);

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: const Text('Menu'),
      ),
      body: const Center(
        child: Text('Ini adalah halaman Menu.'),
      ),
    );
  }
}

class AboutPage extends StatefulWidget {
  @override
  _AboutPageState createState() => _AboutPageState();
}

class _AboutPageState extends State<AboutPage> {
  String restaurantExteriorUrl =
'https://images.unsplash.com/photo-1517248135467-4c7edcad34c4?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVUfDB8fHx8&auto-format& fit=crop&w=1470&h=80';
  String restaurantName = 'Adel Bistro Restaurant';
  String restaurantLocation = 'Jl. Contoh No.1, Jakarta, Indonesia';
  String mapsUrl = 'https://maps. google.com/?q=-6.200000,106.816666';
  const AboutPage({Key? key}) : super(key: key);

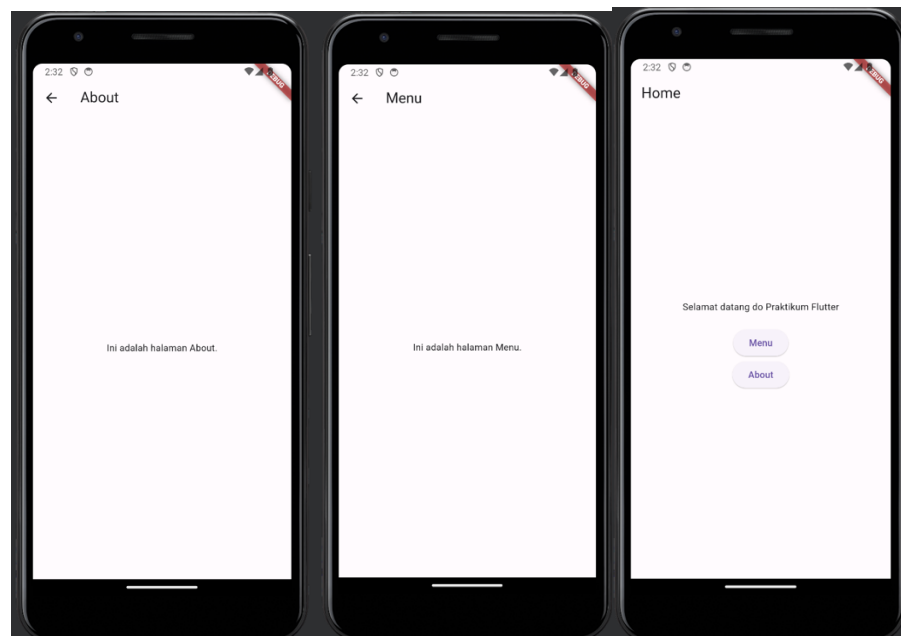
```

```

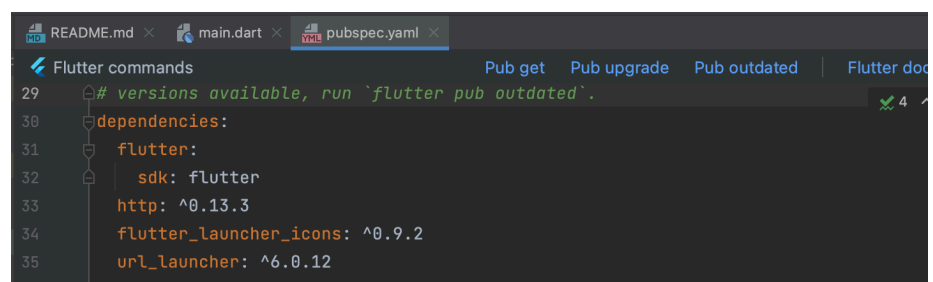
@override
Widget build(BuildContext context){
  return Scaffold(
    appBar: AppBar(
      title: const Text('About'),
    ),
    body: const Center(
      child: Text('Ini adalah halaman About.'),
    ),
  );
}

```

Kode di atas akan membuat aplikasi Flutter dengan tiga halaman: Home, Menu, dan About. Halaman Home memiliki dua tombol yang akan mengarahkan pengguna ke halaman Menu dan halaman About.



2. Add dependencies pada pubspec.yaml -> pub get



```

Messages: [prak08] Flutter x
flutter pub get
Resolving dependencies...
+ archive 3.6.0
+ args 2.5.0
+ crypto 3.0.3
+ flutter_launcher_icons 0.9.3 (0.13.1 available)
+ flutter_lints 3.0.2 (4.0.0 available)
+ flutter_web_plugins 0.0.0 from sdk flutter
+ http 0.13.6 (1.2.1 available)
+ http_parser 4.0.2
+ image 3.3.0 (4.2.0 available)
+ leak_tracker 10.0.0 (10.0.5 available)
+ leak_tracker_flutter_testing 2.0.1 (3.0.5 available)
+ leak_tracker_testing 2.0.1 (3.0.1 available)
+ lints 3.0.0 (4.0.0 available)
+ material_color_utilities 0.8.0 (0.11.1 available)
+ meta 1.11.0 (1.15.0 available)
+ petitparser 6.0.2
+ plugin_platform_interface 2.1.8
+ test_api 0.6.1 (0.7.1 available)
+ typed_data 1.3.2
+ url_launcher 6.2.6
+ url_launcher_android 6.3.2
+ url_launcher_ios 6.3.0
+ url_launcher_linux 3.1.1

```

3. Edit class AboutPage menjadi stateful dan menambahkan beberapa atribut

```

class AboutPage extends StatefulWidget {
  const AboutPage({Key? key}) : super(key: key);
  @override
  _AboutPageState createState() => _AboutPageState();
}

class _AboutPageState extends State<AboutPage> {
  String restaurantExteriorUrl =
    'https://images.unsplash.com/photo-1517248135467-4c7edcad34c4?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVuZDB8fHx8&auto=format&fit=crop&w=1470&h=80';
  String restaurantInteriorUrl =
    'https://images.unsplash.com/photo-1587899897387-091ebd01a6b2?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVuZDB8fHx8&auto=format&fit=crop&w=1513&h=80';
  String restaurantName = 'Adel Bistro Restaurant';
  String restaurantLocation = 'Jl. Contoh No.1, Jakarta, Indonesia';
  String mapsUrl = 'https://maps.google.com/?q=-6.200000,106.816666';

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(

```

```

        title: const Text('About'),
      ),
      body: SingleChildScrollView(
        child: Padding(
          padding: const EdgeInsets.all(16.0),
          child: Column(
            crossAxisAlignment:
CrossAxisAlignment.start,
            children: [
              Text(
                restaurantName,
                style: TextStyle(fontSize: 24,
fontWeight: FontWeight.bold),
              ),
              SizedBox(height: 16),
              Text('Foto Luar Restoran:'),
              SizedBox(height: 8),
              Image.network(restaurantExteriorUrl),
              SizedBox(height: 16),
              Text('Foto Interior Restoran:'),
              SizedBox(height: 8),
              Image.network(restaurantInteriorUrl),
              SizedBox(height: 16),
              Text(
                'Lokasi:',
                style: TextStyle (fontSize: 18,
fontWeight: FontWeight.bold),
              ),
              SizedBox(height: 8),
              Text(restaurantLocation),
              SizedBox(height: 8),
              ElevatedButton.icon(
                onPressed: () async {
                  await launch(urls);
                },
                icon: Icon(Icons.map),
                label: Text('Buka di Google Maps'),
              ),
            ],
          ),
        ),
      ),
    );
  }
}

```

4. Membuat file baru untuk menambahkan menu berupa grid

Klik kanan dir lib -> New -> file -> food_menu.dart

```
class FoodMenu {
  final String imageUrl;
  final String name;
  final double price;
  FoodMenu({required this.imageUrl, required
this.name, required this.price});
}
```

5. Import file food_menu.dart ke main.dart

```
import 'food_menu.dart';
```

6. Edit class MenuPage

```
class MenuPage extends StatefulWidget {
  const MenuPage ({Key? key}) : super(key: key);
  @override
  _MenuPageState createState() => _MenuPageState();
}
class _MenuPageState extends State<MenuPage> {
  List<FoodMenu> foodMenus = [
    FoodMenu (
      imageUrl: 'https://images.unsplash.com/photo-
1414235077428-338989a2e8c0?ixlib=rb-
4.0.3&ixid=MnwxMjA3fDB8MHxwaG90bylwYWdlfHx8fGVufDB8fHx
8&auto=format&fit=crop&w=1470&q=80',
      name: 'Pasta',
      price: 45000),
    FoodMenu (
      imageUrl: 'https://images.unsplash.com/photo-
1676300185292-e23bb3db50fa?ixlib=rb-
4.0.3&ixid=MnwxMjA3fDB8MHxwaG90bylwYWdlfHx8fGVufDB8fHx
8&auto=format&fit=crop&w=1470&q=80',
      name: 'Beef Bourguignon',
      price: 55000),
    FoodMenu (
      imageUrl: 'https://images.unsplash.com/photo-
1621841957884-1210fe19d66d?ixlib=rb-
4.0.3&ixid=MnwxMjA3fDB8MHxwaG90bylwYWdlfHx8fGVufDB8fHx
8&auto=format&fit=crop&w=1470&q=80',
      name: 'Seafood Paella',
      price: 135000),
    FoodMenu (
      imageUrl: 'https://images.unsplash.com/photo-
1550675897-2505803ba4c0?ixlib=rb-
4.0.3&ixid=MwxMjA3fDB8MHxwaG90bylwYWdlfHx8fGVufDB8fHx8
&auto=format&fit=crop&w=1470&q=80',
```

```

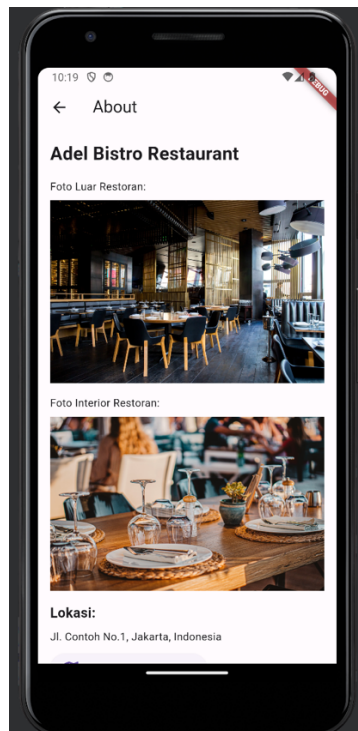
        name: 'Pastel de Nata',
        price: 105000),
    FoodMenu (
        imageUrl: 'https://images.unsplash.com/photo-1601702538934-efffab67ab65?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1470&q=80',
        name: 'Pickle Herring',
        price: 71000),
    FoodMenu (
        imageUrl: 'https://images.unsplash.com/photo-1623961988350-66b064cb2977?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1470&q=80',
        name: 'Carpaccio ',
        price: 99000),
    FoodMenu (
        imageUrl: 'https://images.unsplash.com/photo-1610360147031-26ald395726e?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1470&q=80',
        name: 'Roast & Yorkshire Pudding',
        price: 45000),
    FoodMenu (
        imageUrl: 'https://images.unsplash.com/photo-1555196301-Sacc011ldfde4?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1470&q=80',
        name: 'Gyros with Tzatziki',
        price: 75000),
    FoodMenu (
        imageUrl: 'https://images.unsplash.com/photo-1604382354936-07c5d9983bd3?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1470&q=80',
        name: 'Pizza with cheezy mushroom',
        price: 85000),
    FoodMenu (
        imageUrl: 'https://images.unsplash.com/photo-1624371414361-e670edf4898d?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1470&q=80',
        name: 'Churros',
        price: 45000),
];
@override
Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(

```

```

        title: const Text('Menu'),
      ),
      body: GridView.builder (
        itemCount: foodMenus.length,
        gridDelegate:
SliverGridDelegateWithFixedCrossAxisCount (
          crossAxisCount: 2,
          childAspectRatio: 0.8,
        ),
        itemBuilder: (BuildContext context, int index) {
          return GestureDetector(
            onTap: () {
              Navigator.push(
                context,
                MaterialPageRoute(
                  builder: (context) =>
                    FoodDetailPage(foodMenu:
foodMenus[index]),
                ),
              );
            },
            child: Card(
              child: Column(
                children: [
                  Expanded(
                    child: Image.network(
                      foodMenus[index].imageUrl,
                      fit: BoxFit.cover,
                    ),
                  ),
                  Padding(
                    padding: const EdgeInsets.all(8.0),
                    child: Text(
                      foodMenus[index].name,
                      style: TextStyle(fontWeight:
FontWeight.bold),
                    ),
                  ),
                  Text('Rp
${foodMenus[index].price.toStringAsFixed(0)}'),
                ],
              ),
            ),
          );
        },
      ),
    );
  }
}

```



7. Buat class FoodDetailPage untuk halaman detail menu makanan

```
class FoodDetailPage extends StatelessWidget {
  final FoodMenu foodMenu;
  FoodDetailPage ( {required this. foodMenu});

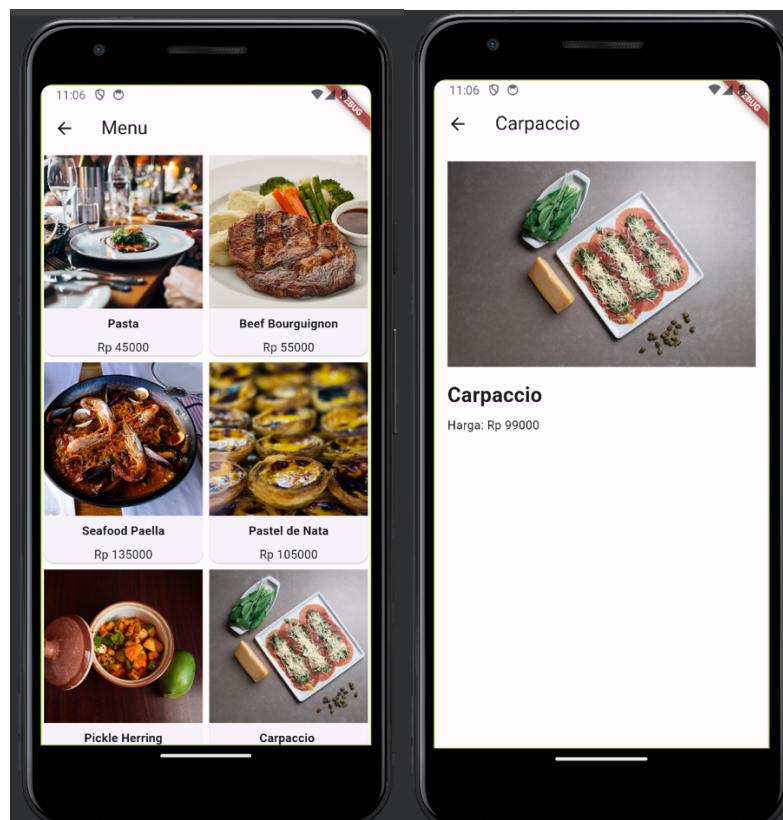
  @override
  Widget build (BuildContext context) {
    return Scaffold (
      appBar: AppBar (
        title: Text (foodMenu.name),
      ),
      body: SingleChildScrollView(
        child: Padding(
          padding: const EdgeInsets.all(16.0),
          child: Column (
            crossAxisAlignment:
CrossAxisAlignment.start,
            children: [
              Image.network(foodMenu.imageUrl),
              SizedBox (height: 16),
              Text (
                foodMenu.name,
```

```

        style: TextStyle (fontSize: 24,
fontWeight: FontWeight.bold),
      ),
      SizedBox (height: 8),
      Text ('Harga: Rp
${foodMenu.price.toStringAsFixed(0)}') ,
    ],
  ),
),
),
);
}
}

```

Dengan perubahan tersebut, halaman Menu akan menampilkan grid yang berisi 10 menu makanan dengan foto, nama, dan harga. Ketika salah satu menu ditekan, halaman detail menu makanan akan ditampilkan yang berisi foto lebih besar, nama makanan, dan harganya.



8. Buat file baru bernama `cart_item.dart` untuk menambah fitur keranjang

```
import 'food_menu.dart';

class CartItem {
  FoodMenu foodMenu;
  int quantity;
  CartItem({required this.foodMenu, this.quantity
    = 1});
}
```

9. Import file `cart_item.dart` ke `main.dart`

```
import 'cart_item.dart';
```

10. Edit class `MenuPageState`

```
class MenuPage extends StatefulWidget {
  const MenuPage ({Key? key}) : super(key: key);
  @override
  _MenuPageState createState() => _MenuPageState();
}

class _MenuPageState extends State<MenuPage> {
  List<CartItem> cartItems = [];
  List<CartItem> _cartItems = [];
  List<FoodMenu> foodMenus = [
    FoodMenu (
      imageUrl: 'https://images.unsplash.com/photo-1414235077428-338989a2e8c0?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90bylwYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1470&q=80',
      name: 'Pasta',
      price: 45000),
    FoodMenu (
      imageUrl: 'https://images.unsplash.com/photo-1676300185292-e23bb3db50fa?ixlib=rb-
```

```

4.0.3&ixid=MnwxMjA3fDB8MHxwaG90bylwYWdlfHx8fGVufDB8fHx
8&auto=format&fit=crop&w=1470&q=80',
    name: 'Beef Bourguignon',
    price: 55000),
  FoodMenu (
    imageUrl: 'https://images.unsplash.com/photo-
1621841957884-1210fe19d66d?ixlib=rb-
4.0.3&ixid=MnwxMjA3fDB8MHxwaG90bylwYWdlfHx8fGVufDB8fHx
8&auto=format&fit=crop&w=1470&q=80',
    name: 'Seafood Paella',
    price: 135000),
  FoodMenu (
    imageUrl: 'https://images.unsplash.com/photo-
1550675897-2505803ba4c0?ixlib=rb-
4.0.3&ixid=MwxMjA3fDB8MHxwaG90bylwYWdlfHx8fGVufDB8fHx8
&auto=format&fit=crop&w=1470&q=80',
    name: 'Pastel de Nata',
    price: 105000),
  FoodMenu (
    imageUrl: 'https://images.unsplash.com/photo-
1601702538934-efffab67ab65?ixlib=rb-
4.0.3&ixid=MnwxMjA3fDB8MHxwaG90bylwYWdlfHx8fGVufDB8fHx
8&auto=format&fit=crop&w=1470&q=80',
    name: 'Pickle Herring',
    price: 71000),
  FoodMenu (
    imageUrl: 'https://images.unsplash.com/photo-
1623961988350-66b064cb2977?ixlib=rb-
4.0.3&ixid=MnwxMjA3fDB8MHxwaG90bylwYWdlfHx8fGVufDB8fHx
8&auto=format&fit=crop&w=1470&q=80',
    name: 'Carpaccio ',
    price: 99000),
  FoodMenu (

```

```

        imageUrl: 'https://images.unsplash.com/photo-1610360147031-26a1d395726e?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1470&q=80',
        name: 'Roast & Yorkshire Pudding',
        price: 45000),
    FoodMenu (
        imageUrl: 'https://images.unsplash.com/photo-1555196301-9acc011dfde4?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1470&q=80',
        name: 'Gyros with Tzatziki',
        price: 75000),
    FoodMenu (
        imageUrl: 'https://images.unsplash.com/photo-1604382354936-07c5d9983bd3?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1470&q=80',
        name: 'Pizza with cheezy mushroom',
        price: 85000),
    FoodMenu (
        imageUrl: 'https://images.unsplash.com/photo-1624371414361-e670edf4898d?ixlib=rb-4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1470&q=80',
        name: 'Churros',
        price: 45000),
];

void _addToCart(FoodMenu foodMenu) {
  setState(() {
    _cartItems.add(CartItem(foodMenu: foodMenu));
    print("_cartItems");
  });
}

```



```

        _cartItems.forEach((element) {
            print(element.foodMenu.name);
        });
    });
}

@override
Widget build(BuildContext context) {
    return Scaffold(
        appBar: AppBar(
            title: Text('Menu'),
            actions: [
                IconButton(
                    icon: Icon(Icons.shopping_cart),
                    onPressed: () {
                        Navigator.push(
                            context,
                            MaterialPageRoute(
                                builder: (context) =>
CartDialog(cartItems: cartItems),
                            ),
                        );
                    },
                ),
            ],
        ),
        body: GridView.builder (
            itemCount: foodMenus.length,
            gridDelegate:
SliverGridDelegateWithFixedCrossAxisCount (
                crossAxisCount: 2,
                childAspectRatio: 0.8,
            ),
        ),
    );
}

```



```

        Text('Rp
        ${foodMenus[index].price.toStringAsFixed(0)}'),
      ],
    ),
  ),
);
},
),
);
}
}

```

11. Edit class FoodDetailPage

```

class FoodDetailPage extends StatelessWidget {
  final FoodMenu foodMenu;
  final List<CartItem> cartItems;
  final void Function(FoodMenu) addToCart;
  FoodDetailPage ( {
    Key? key,
    required this.foodMenu,
    required this.addToCart,
    required this.cartItems,
  }) : super(key: key);

  @override
  Widget build (BuildContext context) {
    return Scaffold (
      appBar: AppBar (
        title: Text (foodMenu.name),
        actions: [
          IconButton(
            icon: Icon(Icons.shopping_cart),

```

```

        onPressed: () {
          Navigator.push(
            context,
            MaterialPageRoute(
              builder: (context) =>
                CartDialog(cartItems: cartItems),
            ),
          );
        },
      ),
    ],
  ),
  body: SingleChildScrollView(
    child: Padding(
      padding: const EdgeInsets.all(16.0),
      child: Column (
        crossAxisAlignment:
          CrossAxisAlignment.start,
        children: [
          Image.network(foodMenu.imageUrl),
          SizedBox (height: 16),
          Text (
            foodMenu.name,
            style: TextStyle (fontSize: 24,
              fontWeight: FontWeight.bold),
          ) ,
          SizedBox (height: 8),
          Text ('Harga: Rp
            ${foodMenu.price.toStringAsFixed(0)}') ,
          ElevatedButton(onPressed: () {
            addToCart(foodMenu);

            ScaffoldMessenger.of(context).showSnackBar(

```

```

        Snackbar(
            content:
                Text('${foodMenu.name} ditambahkan
ke keranjang'),
        ),
    );
},
    child: Text('Tambah ke Keranjang'),
),
],
),
),
),
);
}
}

```

12. Buat class CartDialog untuk menampilkan jumlah item dan harga pesanan

```

class CartDialog extends StatelessWidget {
    final List<CartItem> cartItems;

    CartDialog({required this.cartItems});

    @override
    Widget build(BuildContext context) {
        int itemCount = cartItems.fold<int>(0, (sum, item) =>
sum + item.quantity);
        double totalPrice = cartItems.fold<double>(0, (sum,
item) => sum + item.foodMenu.price * item.quantity);

        print("itemCount $itemCount");
        print("totalPrice $totalPrice");
    }
}

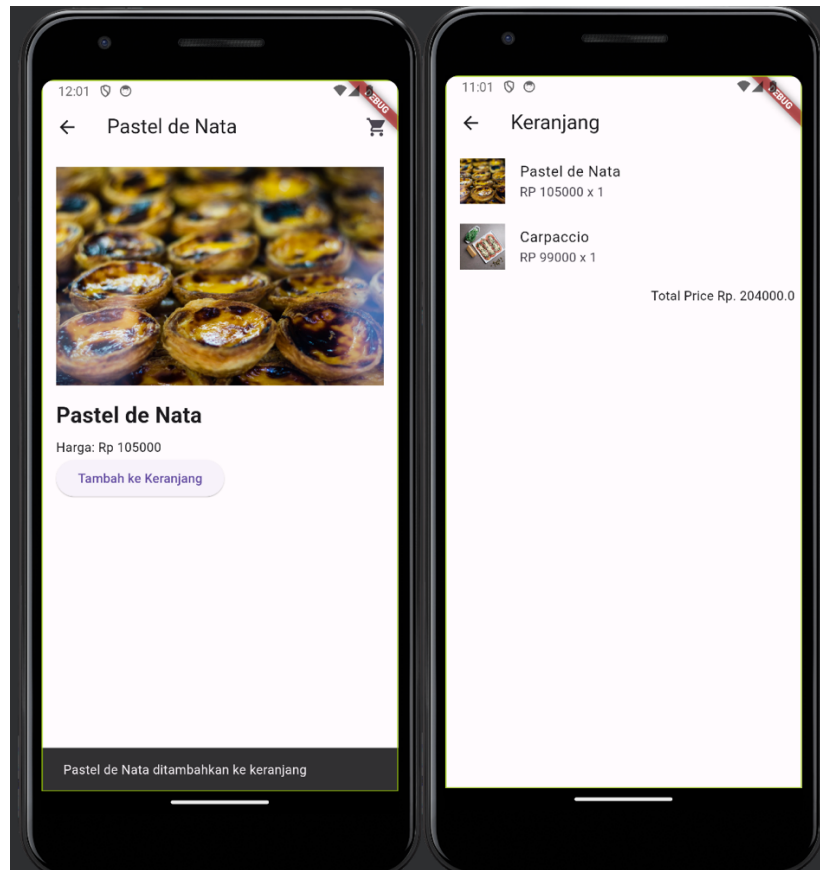
```

```

return Scaffold(
  appBar: AppBar(
    title: Text("Keranjang"),
  ),
  body: Column(
    children: [
      ListView.builder(
        shrinkWrap: true,
        itemCount: cartItems.length,
        itemBuilder: (BuildContext context, int index) {
          print("a. $cartItems");
          return ListTile(
            leading: Image.network(
              cartItems[index].foodMenu.imageUrl,
              width: 50,
              height: 50,
              fit: BoxFit.cover,
            ),
            title: Text(cartItems[index].foodMenu.name),
            subtitle: Text (
              'RP
              ${cartItems[index].foodMenu.price.toStringAsFixed(0)} x
              ${cartItems[index].quantity.toStringAsFixed(0)}'),
          );
        },
      ),
      Align(
        alignment: Alignment.centerRight,
        child: Padding(
          padding: const EdgeInsets.all(8.0),
          child: Text("Total Price Rp. $totalPrice"),
        )
      )
    ],
  ),
)

```

```
);
}
}
```



c. **Push Code to GitHub** https://github.com/adelianurlinap/Prak_PBM.git

1. Clone Repository yang telah dibuat :

```
git clone https://github.com/adelianurlinap/Prak_PBM.git
```

2. Add dan commit

```
git add .
git commit -m "Tugas7"
```

3. Push code

```
git push
```

B. Kesimpulan

Pada tugas 7 ini, telah dilakukan praktek untuk membuat stateful widget untuk membuat aplikasi cerita interaktif

C. Referensi

modul prak08