

**TUGAS PENDAHULUAN
PEMROGRAMAN PERANGKAT BERGERAK**

**MODUL VII
NAVIGASI DAN NOTIFIKASI**



Disusun Oleh :

Dewi Atika Muthi / 2211104042

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Asisten Praktikum :

Muhammad Faza Zulian Gesit Al Barru

Aisyah Hasna Aulia

Dosen Pengampu :

Yudha Islami Sulistya, S.Kom., M.Cs.

PROGRAM STUDI S1 SOFTWARE ENGINEERING

FAKULTAS INFORMATIKA

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TUGAS PENDAHULUAN

A. SOAL NOMOR 1

- a) Buatlah satu project baru, yang mana di dalamnya terdapat *navigasi* untuk pindah dari satu halaman ke halaman lainnya.

Source code:

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

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

class MyApp extends StatelessWidget {
  const MyApp({super.key});

  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Cafe Menu',
      theme: ThemeData(
        primarySwatch: Colors.brown,
        visualDensity: VisualDensity.adaptivePlatformDensity,
      ),
      home: const HomePage(),
    );
  }
}

class HomePage extends StatefulWidget {
  const HomePage({super.key});

  @override
  State<HomePage> createState() => _HomePageState();
}

class _HomePageState extends State<HomePage>
    with SingleTickerProviderStateMixin {
  late TabController _tabController;

  @override
  void initState() {
    super.initState();
    _tabController = TabController(length: 3, vsync: this);
  }

  @override
  void dispose() {
    _tabController.dispose();
    super.dispose();
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: const Text('Cafe Menu'),
        bottom: TabBar(
          controller: _tabController,
          tabs: const [
            Tab(icon: Icon(Icons.restaurant_menu), text: 'Makanan'),
            Tab(icon: Icon(Icons.wine_bar), text: 'Minuman'),
            Tab(icon: Icon(Icons.cake), text: 'Dessert'),
          ],
        ),
      ),
      body: TabBarView(
        controller: _tabController,
        children: const [
          MenuSection(items: [
```

```

MenuItem(
    name: 'Classic Beef Burger',
    price: 'Rp 65.000',
    description: 'Beef patty, lettuce, tomato, cheese, special sauce',
    imageUrl:
        'https://simply-delicious-food.com/wp-
content/uploads/2020/08/Bourbon-basted-cheeseburger-2-500x500.jpg',
),
MenuItem(
    name: 'Grilled Sirloin Steak',
    price: 'Rp 125.000',
    description:
        '200g Australian beef with mashed potato and vegetables',
    imageUrl:
        '//https://encrypted-
tbn0.gstatic.com/images?q=tbn:ANd9GcTH_CPDkelQirmnMQSDlv8gNt16JQbvzd4A3SAQoadXjMJJtcL5m
kwY7t-UbpY6cr9nqgE&usqp=CAU',
        'https://www.foodfirefriends.com/wp-content/uploads/2020/05/sirloin-
steak.jpg',
),
MenuItem(
    name: 'Spaghetti Carbonara',
    price: 'Rp 58.000',
    description: 'Creamy pasta with beef bacon and parmesan cheese',
    imageUrl:
        'https://girlcarnivore.com/wp-content/uploads/2021/01/Classic-
Carbonara-with-Prosciutto-34.jpg',
),
MenuItem(
    name: 'Caesar Salad',
    price: 'Rp 45.000',
    description:
        'Romaine lettuce, grilled chicken, croutons, caesar dressing',
    imageUrl:
        '//https://lindseyeatsla.com/wp-
content/uploads/2021/10/Lindseyeats_Classic_Caesar_Salad-2.jpg',
        'https://www.acouplecooks.com/wp-content/uploads/2020/06/Caesar-
Salad-054.jpg',
),
MenuItem(
    name: 'Fish & Chips',
    price: 'Rp 68.000',
    description: 'Crispy dory fish with fries and tartar sauce',
    imageUrl:
        'https://www.thecandidcooks.com/wp-content/uploads/2022/07/fish-and-
chips-feature1-1024x683.jpg',
),
MenuItem(
    name: 'Club Sandwich',
    price: 'Rp 52.000',
    description:
        'Triple decker with chicken, egg, bacon, and vegetables',
    imageUrl:
        'https://t4.ftcdn.net/jpg/02/58/91/65/240_F_258916556_B6oirjJOKQkaxs39KPi9wjf9ePlT7zF8.
jpg',
),
],
MenuSection(items: [
    MenuItem(
        name: 'Iced Americano',
        price: 'Rp 28.000',
        description: 'Double shot espresso with cold water',
        imageUrl:
            'https://129247483.cdn6.editmysite.com/uploads/1/2/9/2/129247483/s838334798597674802_p1
080_i1_w1080.jpeg',
    ),
    MenuItem(
        name: 'Caramel Frappe',
        price: 'Rp 35.000',
        description: 'Blended coffee with caramel and whipped cream',
        imageUrl:
            'https://images.stockcake.com/public/c/d/6/cd631227-f94a-4f92-a29f-
86968a727c9c_large/caramel-frappe-delight-stockcake.jpg',
    ),
    MenuItem(
        name: 'Fresh Lemonade',
        price: 'Rp 25.000',
        description: 'Freshly squeezed lemon with mint leaves',
        imageUrl:
            'https://www.cocktailcontessa.com/wp-content/uploads/2022/06/bourbon-

```

```

lemonade-14-768x1024.jpg',
    ),
    MenuItem(
      name: 'Strawberry Milkshake',
      price: 'Rp 32.000',
      description: 'Creamy milkshake with fresh strawberries',
      imageUrl:
        'https://encrypted-
tbn0.gstatic.com/images?q=tbn:ANd9GcTSAKx94LNOFmPRNNP9l-2B3blPUrXitYnl-Q&s',
    ),
  ]),
  MenuSection(items: [
    MenuItem(
      name: 'New York Cheesecake',
      price: 'Rp 42.000',
      description: 'Classic cheesecake with berry compote',
      imageUrl:
        'https://www.chocolatemoosey.com/wp-content/uploads/2022/12/7-Inch-
Cheesecake-Recipe-photo-8088.jpg',
    ),
    MenuItem(
      name: 'Apple Pie',
      price: 'Rp 38.000',
      description: 'Warm apple pie with vanilla ice cream',
      imageUrl:
        'https://www.thebittersideofsweet.com/wp-
content/uploads/2023/09/Simple-Apple-Pie-SQ.jpg',
    ),
    MenuItem(
      name: 'Chocolate Brownie',
      price: 'Rp 35.000',
      description: 'Warm chocolate brownie with vanilla ice cream',
      imageUrl: 'https://vegetarianforlife.org.uk/images/Brownie.jpg',
    ),
  ]),
],
),
);
}
}

class MenuItem {
  final String name;
  final String price;
  final String description;
  final String imageUrl;

  const MenuItem({
    required this.name,
    required this.price,
    required this.description,
    required this.imageUrl,
  });
}

class MenuSection extends StatelessWidget {
  final List<MenuItem> items;

  const MenuSection({super.key, required this.items});

  @override
  Widget build(BuildContext context) {
    return ListView.builder(
      padding: const EdgeInsets.all(8),
      itemCount: items.length,
      itemBuilder: (context, index) {
        final item = items[index];
        return Card(
          margin: const EdgeInsets.symmetric(vertical: 8, horizontal: 4),
          child: InkWell(
            onTap: () {
              Navigator.push(
                context,
                MaterialPageRoute(
                  builder: (context) => DetailPage(item: item),
                ),
              );
            },
            child: SizedBox(
              height: 120,
              child: Row(
                children: [

```

```

// Gambar di sisi kiri
ClipRRect(
  borderRadius:
    const BorderRadius.horizontal(left: Radius.circular(4)),
  child: Image.network(
    item.imageUrl,
    width: 120,
    height: 120,
    fit: BoxFit.cover,
  ),
),
// Informasi menu di sisi kanan
Expanded(
  child: Padding(
    padding: const EdgeInsets.all(12),
    child: Column(
      crossAxisAlignment: CrossAxisAlignment.start,
      children: [
        Row(
          mainAxisAlignment: MainAxisAlignment.spaceBetween,
          children: [
            Expanded(
              child: Text(
                item.name,
                style:
                  Theme.of(context).textTheme.titleMedium,
                maxLines: 1,
                overflow: TextOverflow.ellipsis,
              ),
            ),
            Text(
              item.price,
              style: Theme.of(context)
                .textTheme
                .titleMedium
                ?.copyWith(color: Colors.green),
            ),
          ],
        ),
        const SizedBox(height: 4),
        Expanded(
          child: Text(
            item.description,
            style: Theme.of(context).textTheme.bodyMedium,
            maxLines: 2,
            overflow: TextOverflow.ellipsis,
          ),
        ),
        // Tombol Order
        Row(
          mainAxisAlignment: MainAxisAlignment.end,
          children: [
            TextButton.icon(
              onPressed: () {
                ScaffoldMessenger.of(context).showSnackBar(
                  const SnackBar(
                    content:
                      Text('Item ditambahkan ke keranjang'),
                    duration: Duration(seconds: 2),
                  ),
                );
              },
              icon: const Icon(Icons.add_shopping_cart),
              label: const Text('Order'),
            ),
          ],
        ),
      ],
    ),
  ),
),
);
}
}

class DetailPage extends StatelessWidget {

```

```

final MenuItem item;

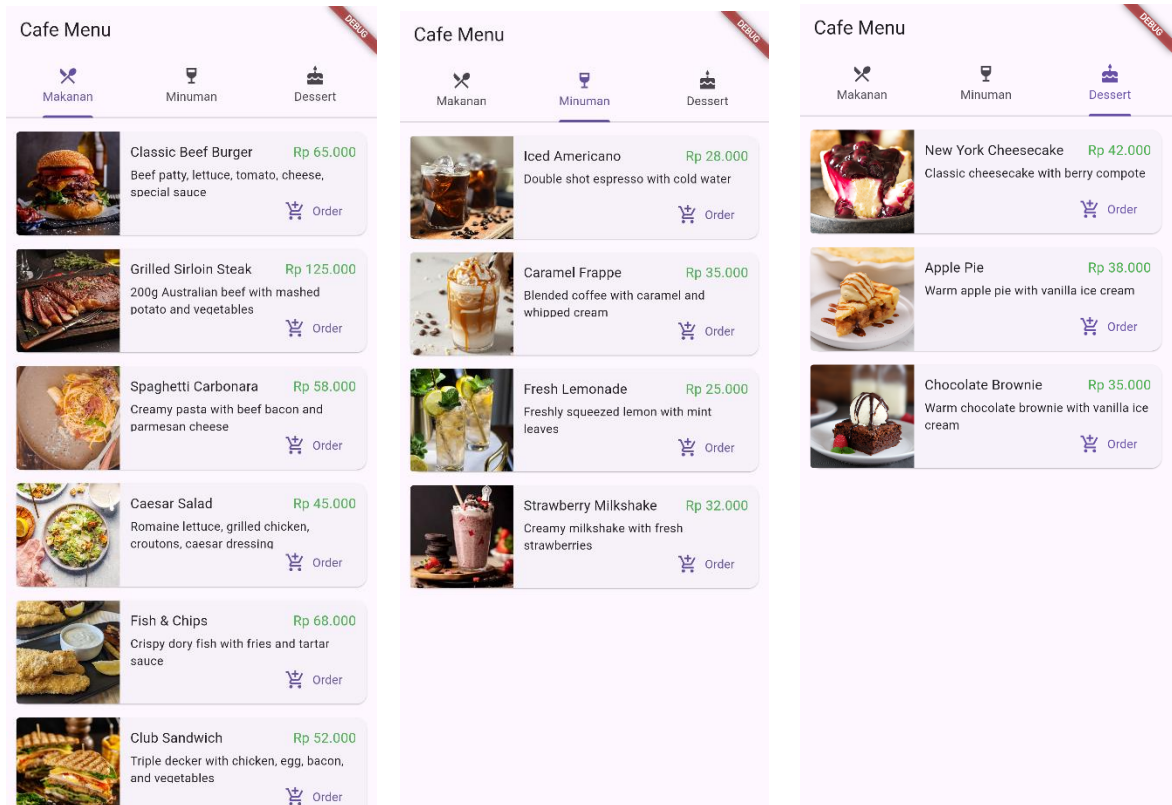
const DetailPage({super.key, required this.item});

@override
Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
      title: Text(item.name),
    ),
    body: SingleChildScrollView(
      child: Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: [
          Image.network(
            item.imageUrl,
            height: 300,
            width: double.infinity,
            fit: BoxFit.cover,
          ),
          Padding(
            padding: const EdgeInsets.all(16),
            child: Column(
              crossAxisAlignment: CrossAxisAlignment.start,
              children: [
                Row(
                  mainAxisAlignment: MainAxisAlignment.spaceBetween,
                  children: [
                    Expanded(
                      child: Text(
                        item.name,
                        style: Theme.of(context).textTheme.headlineMedium,
                      ),
                    ),
                    Text(
                      item.price,
                      style: Theme.of(context)
                        .textTheme
                        .titleLarge
                        ?.copyWith(color: Colors.green),
                    ),
                  ],
                ),
                const SizedBox(height: 16),
                Text(
                  'Deskripsi',
                  style: Theme.of(context).textTheme.titleLarge,
                ),
                const SizedBox(height: 8),
                Text(
                  item.description,
                  style: Theme.of(context).textTheme.bodyLarge,
                ),
                const SizedBox(height: 24),
                SizedBox(
                  width: double.infinity,
                  child: ElevatedButton.icon(
                    onPressed: () {
                      ScaffoldMessenger.of(context).showSnackBar(
                        const SnackBar(
                          content: Text('Item ditambahkan ke keranjang'),
                          duration: Duration(seconds: 2),
                        ),
                      );
                    },
                    icon: const Icon(Icons.shopping_cart),
                    label: const Text('Tambah ke Keranjang'),
                    style: ElevatedButton.styleFrom(
                      padding: const EdgeInsets.all(16),
                    ),
                  ),
                ),
              ],
            ),
          ),
          const SizedBox(height: 16),
          Text(
            'Total Harga',
            style: Theme.of(context).textTheme.titleLarge,
          ),
          const SizedBox(height: 8),
          Text(
            item.totalPrice,
            style: Theme.of(context).textTheme.bodyLarge,
          ),
          const SizedBox(height: 24),
          ElevatedButton(
            onPressed: () {
              // Logic for adding to cart
            },
            style: ElevatedButton.styleFrom(
              padding: const EdgeInsets.all(16),
            ),
          ),
        ],
      ),
    ),
  );
}

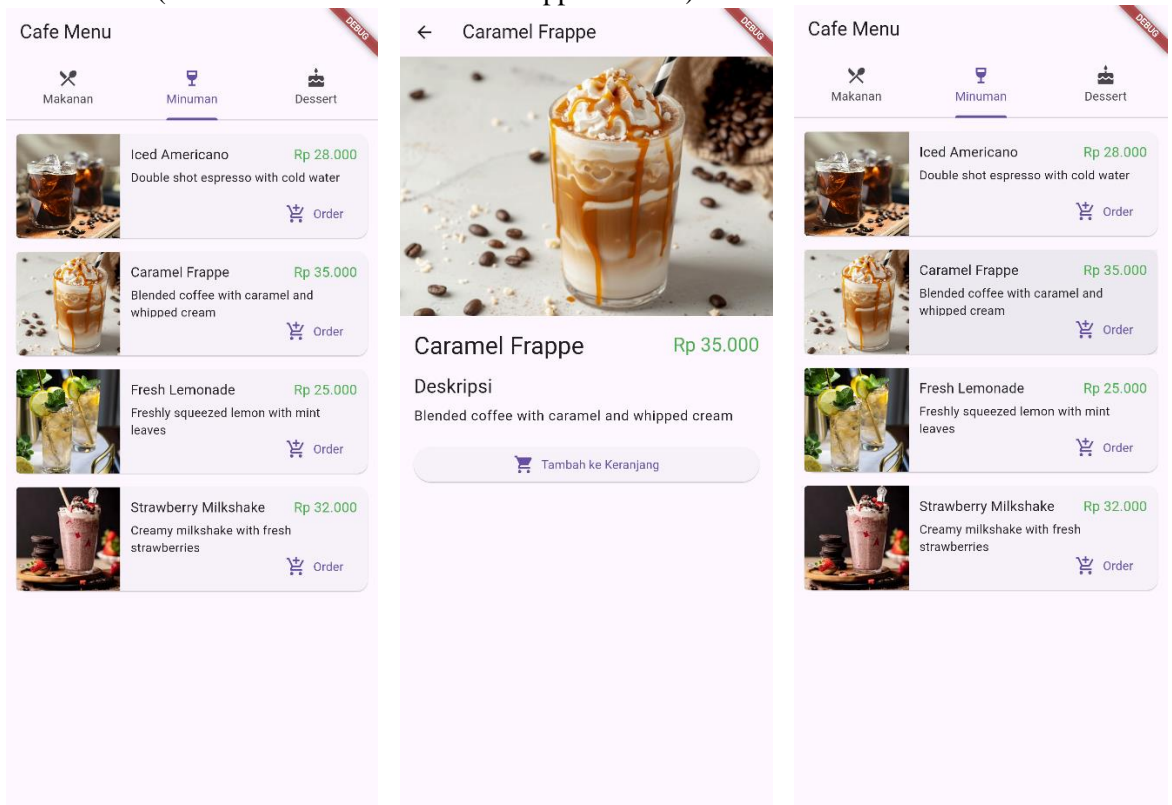
```

Screenshoot Output

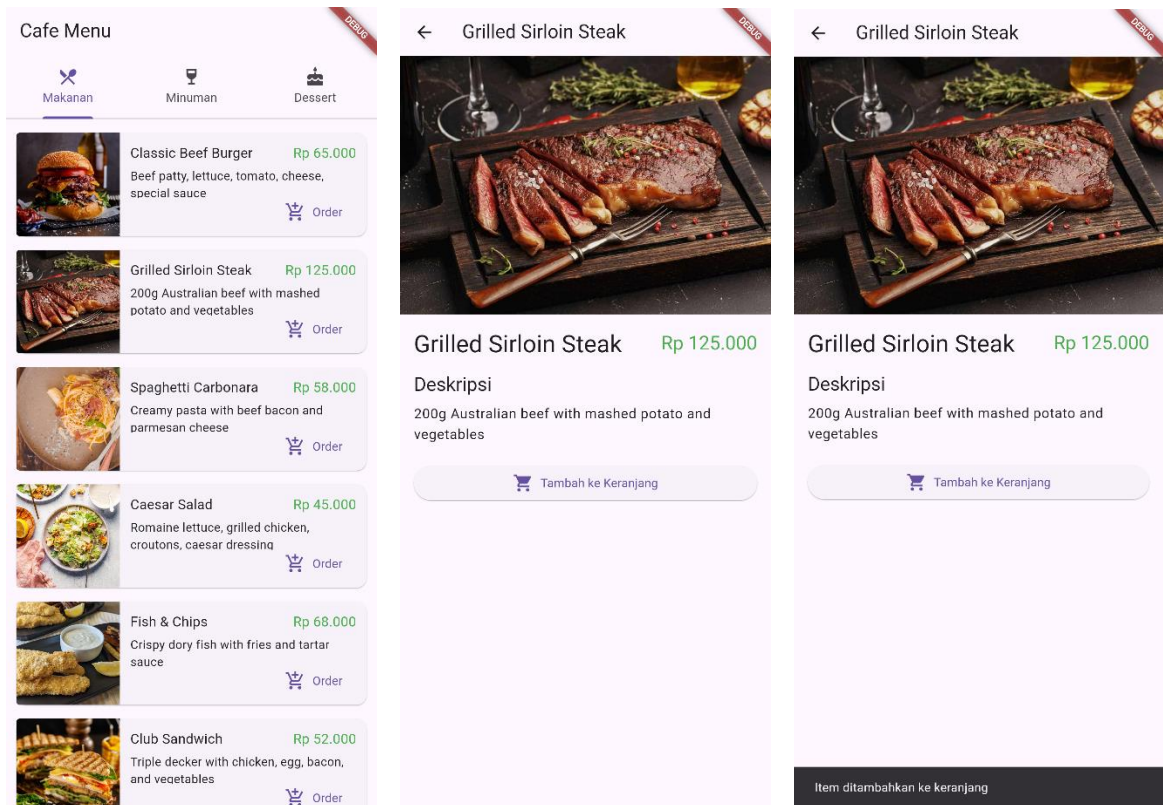
Menu bar (on tap makanan > minuman > dessert)



Click Detail (menu Minuman > “Caramel Frappe” > back)



Click Order (click detail menu “Grilled Sirloin Steak” > “Tambahkan ke Keranjang”)



Deskripsi Program:

Di sini saya membuat program menu restaurant yang memiliki berbagai menu di dalamnya.

Dalam program ini ada tiga kategori menu: Makanan (dengan icon `restaurant_menu`), Minuman (dengan icon `wine_bar`), dan Dessert (dengan icon `cake`).

Ada pun fitur-fitur yang saya gunakan diantaranya: `TabBar` untuk navigasi antar kategori menu, `ListView` dengan card untuk setiap item menu, `Detail page` untuk setiap item, tombol "Tambah ke Keranjang" dengan respon `snackbar`, tampilan harga dan deskripsi yang jelas saat user mengklik tiap card menu tertentu.

Untuk layoutnya sendiri saya menggunakan card dengan gambar menu untuk menampilkan informasi nama, harga, dan deskripsi singkat setiap menu, yang jika diklik, akan mengarahkan ke halaman detail dengan informasi lebih lengkap.