LAPORAN TUGAS GUIDED

PEMROGRAMAN PERANGKAT BERGERAK

MODUL 7

NAVIGASI DAN NOTIFIKASI

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PROGRAM STUDI S1 REKAYASA PERANGKAT LUNAK

FAKULTAS INFORMATIKA

TELKOM UNIVERSITY PURWOKERTO

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GUIDED DAN UNGUIDED

A. Product.dart

```dart
class Product {
  final int id;
  final String nama;
  final double harga;
  final String gambarUrl;
  final String deskripsi;

  // Constructor
  Product({
    required this.id,
    required this.nama,
    required this.harga,
    required this.gambarUrl,
    required this.deskripsi,
  });

  // Method untuk mengkonversi JSON => object product
  factory Product.fromJson(Map<String, dynamic> json)
{   return Product(
      id: json['id'],
      nama: json['nama'],
      harga: json['harga'],
      gambarUrl: json['gambarUrl'],
      deskripsi: json['deskripsi'],
    );
  }

  // Method untuk mengkonversi object product => JSON
  Map<String, dynamic> toJson() {
    return {
      'id': id,
      'nama': nama,
      'harga': harga,
      'gambarUrl': gambarUrl,
      'deskripsi': deskripsi,
    };
  }
}
```

B. detailpage.dart

```dart
import 'package:flutter/material.dart';
import 'package:praktikum_7/models/product.dart';
import 'package:praktikum_7/systems/local_notifications.dart';

class DetailPage extends StatelessWidget {
  const DetailPage({super.key, required this.product});

  final Product product;

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('Detail Page'),
        centerTitle: true,
        backgroundColor: Color(0xFF952491), // Warna header
      ),
      body: Center(
        child: Column(
          mainAxisAlignment: MainAxisAlignment.center,
          children: [
            Card(
              margin: EdgeInsets.all(16.0),
              elevation: 4,
              color: Color(0xFF650000), // Background Card
              shape: RoundedRectangleBorder(
                borderRadius: BorderRadius.circular(10), // Sudut tumpul
              ),
              child: Padding(
                padding: const EdgeInsets.all(16.0),
                child: Column(
                  mainAxisSize: MainAxisSize.min,
                  children: [
                    Stack(
                      alignment: Alignment.center,
                      children: [
                        Container(
                          width: double.infinity,
                          height: 150, // Sesuaikan tinggi
                          color: Color(0xFFFEF250), // Background untuk gambar
                        ),
                        Image.network(
                          product.gambarUrl,
                          width: 150, // Sesuaikan ukuran
                          height: 150, // Sesuaikan ukuran
                          fit: BoxFit.cover, // Untuk menjaga proporsi gambar
                        ),
                      ],
                    ),
                    SizedBox(height: 10),
                    Text(
                      product.nama,
                      style: TextStyle(
                          fontSize: 24,
                          color: Color(0xFFE6AF2E)), // Teks judul produk
                      textAlign: TextAlign.center,
                    ),
                    Text(
                      'Rp${product.harga}',
                      style: TextStyle(
                          fontSize: 20, color: Color(0xFFFEF250)), // Teks
harga                    ),
                    Padding(
                      padding: const EdgeInsets.all(8.0),
                      child: Text(
                        product.deskripsi,
                        style: TextStyle(
                            color: Color(0xFFE7EB90)), // Teks deskripsi produk
                      ),
                    ),
                  ],
                ),
              ),
            ),
            SizedBox(height: 12),
            ElevatedButton(
              onPressed: () {
                LocalNotifications.showSimpleNotification(
                  title: product.nama,
                  body: 'Harga: Rp${product.harga}\n${product.deskripsi}',
                  payload: 'Detail untuk ${product.nama}',
                );
              },
              style: ElevatedButton.styleFrom(
                backgroundColor: Color(0xFF2274A5), // Background tombol
              ),
              child: Text(
                'Tampilkan Notifikasi',
                style: TextStyle(color: Color(0xFFFADF63)), // Teks pada tombol
              ),
            ),
          ],
        ),
      ),
    );
  }
}
```

C. mypage.dart

```dart
import 'package:flutter/material.dart';
import 'package:praktikum_7/models/product.dart';
import 'package:praktikum_7/pages/detailpage.dart';

class MyPage extends StatelessWidget {
  MyPage({super.key});

  final List<Product> products = [
    Product(
        id: 1,
        nama: 'Mouse Gaming',
        harga: 300000.00,
        gambarUrl:

  'https://resource.logitechg.com/w_386,ar_1.0,c_limit,f_auto,q_auto,dpr_2.0/d_transparent.gif/content/d
am/gaming/en/products/g502x-plus/gallery/g502x-plus-gallery-1-black.png?v=1',
        deskripsi: 'Mouse gaming kualitas lumayan'),
    Product(
        id: 2,
        nama: 'Keyboard Kantor',
        harga: 150000.00,
        gambarUrl:

  'https://resource.logitech.com/w_1600,c_limit,q_auto,f_auto,dpr_1.0/d_transparent.gif/content/dam/logi
tech/en/products/keyboards/mx-mechanical/gallery/mx-mechanical-keyboard-top-view-graphite-us.png?
v=1&quot%27',
        deskripsi: 'Untuk kebutuhan profesional dengan harga terjangkau'),
    Product(
        id: 3,
        nama: 'Headset Gaming',
        harga: 249000.00,
        gambarUrl:
            'https://m.media-amazon.com/images/I/61CGHv6kmWL.AC_UF894,1000_QL80.jpg',
        deskripsi: 'Sensasi nyaman dengan suara jernih'),
    Product(
        id: 4,
        nama: 'Flashdisk 64GB',
        harga: 140000.00,
        gambarUrl:
            'https://www.bhphotovideo.com/cdn-cgi/image/fit=scale-
down,width=500,quality=95/https://www.bhphotovideo.com/images/images500x500/sandisk_sdcz73_064g_a46_64g
b_ultra_flair_usb_1448799616_1203371.jpg',
        deskripsi: 'Penyimpanan besar dengan harga terjangkau'),
    Product(
        id: 5,
        nama: 'TWS M10',
        harga: 45000.00,
        gambarUrl:

  'https://res.cloudinary.com/pusatroxymas/image/upload/w_1024/v1696922978/prod_mproducts/chxx390574_/20
23/fpb_231010_ba4d08af-06a4-435c-ae1b-d0f58089857f.jpg.jpg',
        deskripsi: 'Hf tws M10 bluetooth'),
  ];

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('Class Model'),
        centerTitle: true,
        backgroundColor: Color(0xFF952491), // Warna header
      ),
      body: ListView.builder(
        itemCount: products.length,
        itemBuilder: (context, index) {
          final product = products[index];
          return Container(
            margin:
                EdgeInsets.symmetric(vertical: 5.0), // Margin antar ListTile
            child: ListTile(
              tileColor: Color(0xFF632B30),
              leading: Container(
                color: Color(0xFFFFEF250), // Background foto produk
                child: Image.network(
                  product.gambarUrl,
                  width: 70,
                  height: 70,
                ),
              ),
              title: Text(
                product.nama,
                style: TextStyle(color: Color(0xFFE6AF2E)), // Teks judul produk
              ),
              subtitle: Column(
                crossAxisAlignment: CrossAxisAlignment.start,
                children: [
                  Text(
                    'Rp${product.harga}',
                    style: TextStyle(color: Color(0xFFFEF250)), // Teks harga
                  ),
                  Text(
                    product.deskripsi,
                    style: TextStyle(
                        color: Color(0xFFE7EB90)), // Teks deskripsi produk
                  ),
                ],
              ),
              onTap: () {
                Navigator.push(
                  context,
                  MaterialPageRoute(
                    builder: (_) => DetailPage(product: product),
                  ),
                );
              },
            ),
          );
        },
      ),
    );
  }
}
```

D. localnotification.dart

```dart
import
'package:flutter_local_notifications/flutter_local_notifications.dart';
class LocalNotifications {
  static final FlutterLocalNotificationsPlugin
      _flutterLocalNotificationsPlugin = FlutterLocalNotificationsPlugin();

  // Inisialisasi Notifikasi Lokal
  static Future init() async {
    AndroidInitializationSettings initializationSettingsAndroid =
        AndroidInitializationSettings('@mipmap/ic_launcher');
    final DarwinInitializationSettings initializationSettingsDarwin =
        DarwinInitializationSettings(
      onDidReceiveLocalNotification: (id, title, body, payload) => null,
    );
    final LinuxInitializationSettings initializationSettingsLinux =
        LinuxInitializationSettings(defaultActionName: 'Open notification');
    final InitializationSettings initializationSettings =
        InitializationSettings(
            android: initializationSettingsAndroid,
            iOS: initializationSettingsDarwin,
            linux: initializationSettingsLinux);
    _flutterLocalNotificationsPlugin.initialize(
      initializationSettings,
      onDidReceiveNotificationResponse: (details) => null,
    );
  }

  // Menampilkan notifikasi sederhana
  static Future showSimpleNotification({
    required String title,
    required String body,
    required String payload,
  }) async {
    AndroidNotificationDetails androidNotificationDetails =
        AndroidNotificationDetails(
      'your_channel_id', // Ganti dengan ID channel Anda
      'your_channel_name', // Ganti dengan nama channel Anda
      channelDescription: 'your_channel_description', // Deskripsi channel
      importance: Importance.max,
      priority: Priority.high,
      ticker: 'ticker',
      styleInformation: BigTextStyleInformation(
        body, // Teks yang ditampilkan saat diperluas
        contentTitle: title, // Judul notifikasi
        summaryText: 'Tap to see more', // Teks ringkasan
      ),
    );

    NotificationDetails notificationDetails =
        NotificationDetails(android: androidNotificationDetails);

    await _flutterLocalNotificationsPlugin.show(
      0,
      title,
      body,
      notificationDetails,
      payload: payload,
    );
  }
}
```

E. Main.dart

```dart
import 'package:flutter/material.dart';
import 'package:praktikum7/pages/mypage.dart';
import 'package:praktikum7/systems/local_notifications.dart';

void main() async {
  WidgetsFlutterBinding.ensureInitialized();
  await LocalNotifications.init();
  runApp(const MyApp());
}

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

  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Flutter Demo',
      theme: ThemeData(
        primaryColor: Color(0xFF952491), // Warna utama aplikasi
        colorScheme: ColorScheme.fromSeed(seedColor:
Color(0xuseMaterial3: true,
        ),
        home: MyPage(),
    );
  }
}
```

F. Build.gradle(Android)

```gradle
allprojects {
    repositories {
        google()
        mavenCentral()
    }
}

rootProject.buildDir = "../build"
subprojects {
    project.buildDir = "${rootProject.buildDir}/${project.name}"
}
subprojects {
    project.evaluationDependsOn(":app")
}

tasks.register("clean", Delete) {
    delete rootProject.buildDir
}

buildscript {
    repositories {
        google()
        mavenCentral()
    }
    dependencies {
        classpath 'com.android.tools.build:gradle:7.3.1'
        classpath 'com.google.gms:google-services:4.3.10' // Plugin Google jika
dipe}lukan
}
```

G. Build.gradle(APP)

```
plugins {
    id "com.android.application"
    id "kotlin-android"
    // The Flutter Gradle Plugin must be applied after the Android and Kotlin Gradle plugins.
    id "dev.flutter.flutter-gradle-plugin"
}

android {
    namespace = "com.example.praktikum7"
    compileSdk = flutter.compileSdkVersion
    ndkVersion = flutter.ndkVersion
    // Penambahan DefaultConfig
    defaultConfig {
        multiDexEnabled true
    }

    compileOptions {
        // Flag to enable support for the new language APIs
        coreLibraryDesugaringEnabled true
        sourceCompatibility = JavaVersion.VERSION_1_8
        targetCompatibility = JavaVersion.VERSION_1_8
    }

    kotlinOptions {
        jvmTarget = JavaVersion.VERSION_1_8
    }

    defaultConfig {
        // TODO: Specify your own unique Application ID
(https://developer.android.com/studio/build/application-id.html).
        applicationId = "com.example.praktikum_7"
        // You can update the following values to match your application needs.
        // For more information, see: https://flutter.dev/to/review-gradle-config.
        minSdkVersion 21
        targetSdk = flutter.targetSdkVersion
        versionCode = flutter.versionCode
        versionName = flutter.versionName
    }

    buildTypes {
        release {
            // TODO: Add your own signing config for the release build.
            // Signing with the debug keys for now, so `flutter run --release` works.
            signingConfig = signingConfigs.debug
        }
    }
}

flutter {
    source = "../.."
}

dependencies {
  coreLibraryDesugaring 'com.android.tools:desugar_jdk_libs:1.2.2'
}
```

H. Androidmanifest.xml

```xml
<manifest xmlns:android="http://schemas.android.com/apk/res/android">
    <uses-permission android:name="android.permission.VIBRATE" />
    <uses-permission android:name="android.permission.RECEIVE_BOOT_COMPLETED"/>
    <application
        android:label="praktikum_7"
        android:name="${applicationName}"
        android:icon="@mipmap/ic_launcher">
        <activity
            android:name=".MainActivity"
            android:exported="true"
            android:launchMode="singleTop"
            android:taskAffinity=""
            android:theme="@style/LaunchTheme"

 android:configChanges="orientation|keyboardHidden|keyboard|screenSize|smallestScreenSize|locale|layout
Direction|fontScale|screenLayout|density|uiMode"
            android:hardwareAccelerated="true"
            android:windowSoftInputMode="adjustResize">
            <!-- Specifies an Android theme to apply to this Activity as soon as
                 the Android process has started. This theme is visible to the user
                 while the Flutter UI initializes. After that, this theme continues
                 to determine the Window background behind the Flutter UI. -->
            <meta-data
              android:name="io.flutter.embedding.android.NormalTheme"
              android:resource="@style/NormalTheme"
              />
            <intent-filter>
                <action android:name="android.intent.action.MAIN"/>
                <category android:name="android.intent.category.LAUNCHER"/>
            </intent-filter>
        </activity>
        <!-- Don't delete the meta-data below.
             This is used by the Flutter tool to generate GeneratedPluginRegistrant.java -->
        <meta-data
            android:name="flutterEmbedding"
            android:value="2" />
    </application>
    <!-- Required to query activities that can process text, see:
         https://developer.android.com/training/package-visibility and
         https://developer.android.com/reference/android/content/Intent#ACTION_PROCESS_TEXT.

         In particular, this is used by the Flutter engine in io.flutter.plugin.text.ProcessTextPlugin.
    -->
    <queries>
        <intent>
            <action android:name="android.intent.action.PROCESS_TEXT"/>
            <data android:mimeType="text/plain"/>
        </intent>
    </queries>
</manifest>
```

I.   Pubspec.yaml

```yaml
name: praktikum7
description: "A new Flutter project."
# The following line prevents the package from being accidentally published to
# pub.dev using `flutter pub publish`. This is preferred for private packages.
publish_to: 'none' # Remove this line if you wish to publish to pub.dev

# The following defines the version and build number for your application.
# A version number is three numbers separated by dots, like 1.2.43
# followed by an optional build number separated by a +.
# Both the version and the builder number may be overridden in flutter
# build by specifying --build-name and --build-number, respectively.
# In Android, build-name is used as versionName while build-number used as versionCode.
# Read more about Android versioning at https://developer.android.com/studio/publish/versioning
# In iOS, build-name is used as CFBundleShortVersionString while build-number is used as
CFBundleVersion.
# Read more about iOS versioning at
#
https://developer.apple.com/library/archive/documentation/General/Reference/InfoPlistKeyReference/Artic
les/CoreFoundationKeys.html
# In Windows, build-name is used as the major, minor, and patch parts
# of the product and file versions while build-number is used as the build suffix.
version: 1.0.0+1

environment:
  sdk: ^3.5.3

# Dependencies specify other packages that your package needs in order to work.
# To automatically upgrade your package dependencies to the latest versions
# consider running `flutter pub upgrade --major-versions`. Alternatively,
# dependencies can be manually updated by changing the version numbers below to
# the latest version available on pub.dev. To see which dependencies have newer
# versions available, run `flutter pub outdated`.
dependencies:
  flutter:
    sdk: flutter
  # Penambahan package flutter_local_notifications
  flutter_local_notifications: ^17.2.4
  # Penambahan package flutter_timezone: ^3.0.1
  flutter_timezone: ^3.0.1
  # Penambahan package rxdart: ^0.28.0
  rxdart: ^0.28.0


  # The following adds the Cupertino Icons font to your application.
  # Use with the CupertinoIcons class for iOS style icons.
  cupertino_icons: ^1.0.8

dev_dependencies:
  flutter_test:
    sdk: flutter

  # The "flutter_lints" package below contains a set of recommended lints to
  # encourage good coding practices. The lint set provided by the package is
  # activated in the `analysis_options.yaml` file located at the root of your
  # package. See that file for information about deactivating specific lint
  # rules and activating additional ones.
  flutter_lints: ^4.0.0

# For information on the generic Dart part of this file, see the
# following page: https://dart.dev/tools/pub/pubspec

# The following section is specific to Flutter packages.
flutter:

  # The following line ensures that the Material Icons font is
  # included with your application, so that you can use the icons in
  # the material Icons class.
  uses-material-design: true

  # To add assets to your application, add an assets section, like this:
  # assets:
  #   - images/a_dot_burr.jpeg
  #   - images/a_dot_ham.jpeg

  # An image asset can refer to one or more resolution-specific "variants", see
  # https://flutter.dev/to/resolution-aware-images

  # For details regarding adding assets from package dependencies, see
  # https://flutter.dev/to/asset-from-package

  # To add custom fonts to your application, add a fonts section here,
  # in this "flutter" section. Each entry in this list should have a
  # "family" key with the font family name, and a "fonts" key with a
  # list giving the asset and other descriptors for the font. For
  # example:
  # fonts:
  #   - family: Schyler
  #     fonts:
  #       - asset: fonts/Schyler-Regular.ttf
  #       - asset: fonts/Schyler-Italic.ttf
  #         style: italic
  #   - family: Trajan Pro
  #     fonts:
  #       - asset: fonts/TrajanPro.ttf
  #       - asset: fonts/TrajanPro_Bold.ttf
  #         weight: 700
  #
  # For details regarding fonts from package dependencies,
  # see https://flutter.dev/to/font-from-package
```
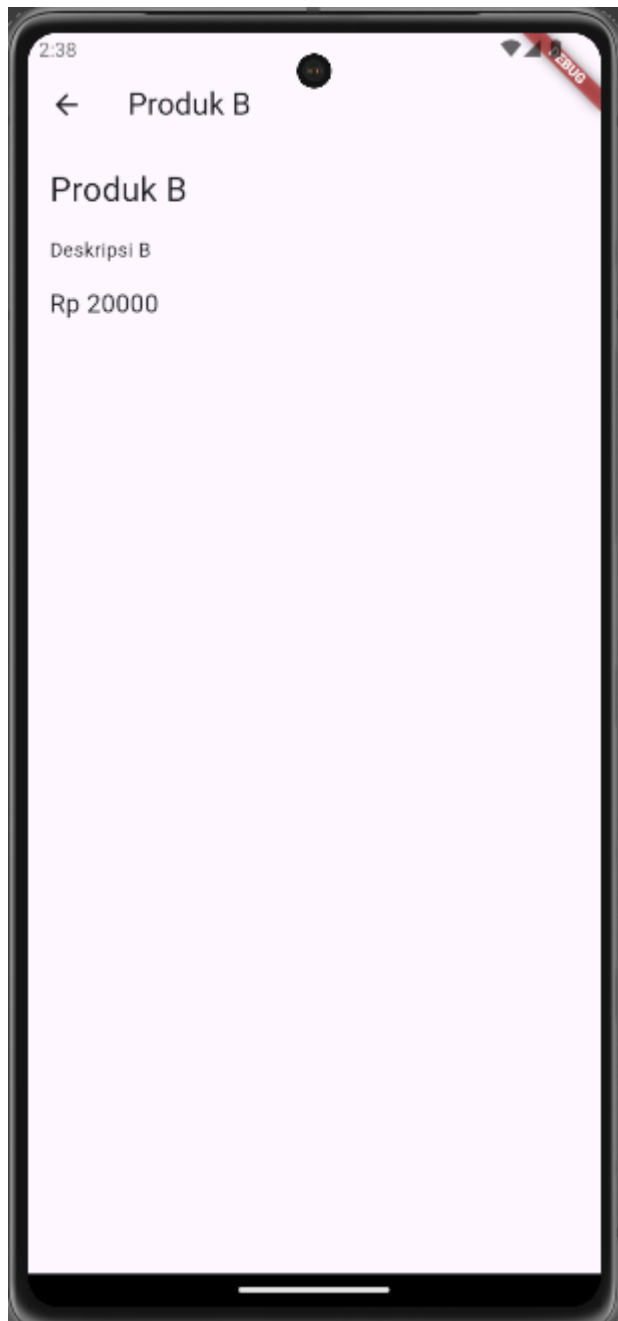
J. Output

Class Model	DEBUG

Mouse Gaming
Rp300000
Mouse gaming kualitas lumayan

Keyboard Kantor
Rp150000
Untuk kebutuhan profesional dengan harga terjangkau

Headset Gaming
Rp249000
Sensasi nyaman dengan suara jernih

Flashdisk 64GB
[object ProgressEvent]
Rp140000
Penyimpanan besar dengan harga terjangkau

TWS M10
Rp45000
Hf tws M10 bluetooth

K. UNGUIDED
- Halaman utama

L. Pindah Halaman

Deskripsi :

Program ini adalah aplikasi e-commerce sederhana yang dikembangkan menggunakan Flutter. Aplikasi ini menampilkan daftar produk, lengkap dengan nama dan harga, dalam tampilan utama. Setiap produk ditampilkan dalam bentuk kartu yang dapat diklik untuk melihat detail produk lebih lanjut. Pada halaman detail, pengguna dapat melihat deskripsi dan harga produk secara lengkap. Aplikasi ini menggunakan struktur MVC sederhana, dengan model Product untuk menyimpan informasi produk. Dengan navigasi yang mudah, pengguna dapat berpindah dari daftar produk ke halaman detail dengan lancar, memberikan pengalaman pengguna yang intuitif.