

**TUGAS PENDAHULUAN / TUGAS UNGUIDED
PEMROGRAMAN PERANGKAT BERGERAK**

MODUL VII
NOTIFIKASI_NAVIGASI



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PROGRAM STUDI S1 SOFTWARE ENGINEERING
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TUGAS UNGUIDED

A. SOAL

(Soal) Buatlah satu project untuk menampilkan beberapa produk dan halaman e-commerce dengan menerapkan class model serta navigasi halaman.

B. JAWABAN

Main.dart

```
import 'package:flutter/material.dart';
import 'pages/welcome_page.dart';
import 'pages/login_page.dart';
import 'pages/home_page.dart';

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

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

  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      debugShowCheckedModeBanner: false,
      title: 'New Balance Store',
      theme: ThemeData(
        colorScheme: ColorScheme.fromSeed(seedColor: Colors.black),
        scaffoldBackgroundColor: const Color(0xffff5f5f5),
        useMaterial3: true,
        fontFamily: 'Poppins',
      ),
      initialRoute: '/',
      routes: {
        '/': (context) => const WelcomePage(),
        '/login': (context) => const LoginPage(),
        '/home': (context) => const HomePage(),
      },
    );
}
```

Welcome_page.dart

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

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

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.white,
      body: SafeArea(
        child: Column(
          mainAxisAlignment: MainAxisAlignment.spaceBetween,
          children: [
            const SizedBox(height: 40),
            Column(
              children: [
                Image.asset(
                  'assets/images/Nb574.jpg',
                  height: 280,
                  fit: BoxFit.contain,
                ),
                const SizedBox(height: 20),
                const Text(
                  "Welcome to NB Store 🎉",
                  style: TextStyle(
                    fontSize: 24,
                    fontWeight: FontWeight.bold,
                  ),
                ),
                const SizedBox(height: 10),
                const Text(
                  "Temukan sepatu New Balance terbaik\nuntuk gaya dan kenyamananmu.",
                  textAlign: TextAlign.center,
                  style: TextStyle(color: Colors.grey),
                ),
              ],
            ),
            Padding(
              padding: const EdgeInsets.symmetric(horizontal: 40, vertical: 60),
              child: ElevatedButton(
                style: ElevatedButton.styleFrom(
                  backgroundColor: Colors.black,
                  shape: RoundedRectangleBorder(
                    borderRadius: BorderRadius.circular(30),
                  ),
                  minimumSize: const Size(double.infinity, 55),
                ),
                onPressed: () {
                  Navigator.pushNamed(context, '/login');
                },
                child: const Text(
                  "Get Started",
                  style: TextStyle(

```

```
        color: Colors.white,
        fontSize: 18,
        fontWeight: FontWeight.bold,
    ),
),
),
),
],
),
),
);
}
}
```

Login_page.dart

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

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

  @override
  State<LoginPage> createState() => _LoginPageState();
}

class _LoginPageState extends State<LoginPage> {
  final _emailController = TextEditingController();
  final _passwordController = TextEditingController();
  bool _obscure = true;

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.white,
      appBar: AppBar(
        title: const Text("Login"),
        centerTitle: true,
        backgroundColor: Colors.white,
        elevation: 0,
      ),
      body: Padding(
        padding: const EdgeInsets.symmetric(horizontal: 32, vertical: 10),
        child: Column(
          crossAxisAlignment: CrossAxisAlignment.start,
          children: [
            const Text(
              "Welcome Back 🙌",
              style: TextStyle(fontSize: 26, fontWeight: FontWeight.bold),
            ),
            const SizedBox(height: 8),
            const Text("Masuk untuk melanjutkan belanja."),
            const SizedBox(height: 40),
          ],
        ),
      ),
    );
  }
}
```

```
TextField(
  controller: _emailController,
  decoration: InputDecoration(
    labelText: "Email",
    prefixIcon: const Icon(Icons.email_outlined),
    border:
      OutlineInputBorder(borderRadius: BorderRadius.circular(15)),
  ),
),
const SizedBox(height: 20),
TextField(
  controller: _passwordController,
  obscureText: _obscure,
  decoration: InputDecoration(
    labelText: "Password",
    prefixIcon: const Icon(Icons.lock_outline),
    suffixIcon: IconButton(
      icon: Icon(
        _obscure ? Icons.visibility : Icons.visibility_off_outlined),
      onPressed: () => setState(() => _obscure = !_obscure),
    ),
    border:
      OutlineInputBorder(borderRadius: BorderRadius.circular(15)),
  ),
),
const SizedBox(height: 40),
SizedBox(
  width: double.infinity,
  height: 55,
  child: ElevatedButton(
    style: ElevatedButton.styleFrom(
      backgroundColor: Colors.black,
      shape: RoundedRectangleBorder(
        borderRadius: BorderRadius.circular(30),
      ),
    ),
    onPressed: () {
      // validasi sederhana
      if (_emailController.text.isNotEmpty &&
          _passwordController.text.isNotEmpty) {
        Navigator.pushReplacementNamed(context, '/home');
      } else {
        ScaffoldMessenger.of(context).showSnackBar(const SnackBar(
          content: Text("Isi email dan password dulu ya 😊"),
        ));
      }
    },
    child: const Text(
      "Login",
      style: TextStyle(
        fontSize: 18,
        fontWeight: FontWeight.bold,
        color: Colors.white,
      ),
    ),
  ),
)
```

```
        ),
        ),
        ),
        const SizedBox(height: 20),
        const Center(
            child: Text(
                "Belum punya akun? Daftar nanti aja 😊",
                style: TextStyle(color: Colors.grey),
            ),
            ),
            ],
            ),
        );
    }
}
```

Home_page.dart

```
import 'package:flutter/material.dart';
import '../model/product.dart';
import '../widgets/product_card.dart';

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

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: const Color(0xffff4f4f4),
      appBar: AppBar(
        backgroundColor: Colors.white,
        elevation: 2,
        centerTitle: true,
        title: const Text(
          'New Balance Store 🏪',
          style: TextStyle(fontWeight: FontWeight.bold, color: Colors.black),
        ),
      ),
      body: ListView.builder(
        itemCount: productList.length,
        itemBuilder: (context, index) {
          return ProductCard(product: productList[index], index: index);
        },
      ),
    );
  }
}
```

Detail_page.dart

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

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

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: CustomScrollView(
        slivers: [
          SliverAppBar(
            expandedHeight: 340,
            floating: false,
            pinned: true,
            backgroundColor: Colors.white,
            iconTheme: const IconThemeData(color: Colors.black),
            flexibleSpace: FlexibleSpaceBar(
              background: Hero(
                tag: product.image,
                child: Image.asset(
                  product.image,
                  fit: BoxFit.cover,
                ),
              ),
            ),
            ),
          ),
        ],
        SliverToBoxAdapter(
          child: Padding(
            padding: const EdgeInsets.all(20),
            child: Column(
              crossAxisAlignment: CrossAxisAlignment.start,
              children: [
                Text(product.name,
                  style: const TextStyle(
                    fontSize: 22, fontWeight: FontWeight.bold)),
                const SizedBox(height: 8),
                Text("Rp ${product.price.toStringAsFixed(0)}",
                  style: const TextStyle(
                    fontSize: 18,
                    color: Colors.grey,
                    fontWeight: FontWeight.w600)),
                const SizedBox(height: 20),
                Text(
                  product.description,
                  style: const TextStyle(fontSize: 16, height: 1.6),
                ),
                const SizedBox(height: 30),
                ElevatedButton(
                  style: ElevatedButton.styleFrom(

```

```
        backgroundColor: Colors.black,
        minimumSize: const Size(double.infinity, 50),
        shape: RoundedRectangleBorder(
            borderRadius: BorderRadius.circular(14)),
        ),
        onPressed: () {
            ScaffoldMessenger.of(context).showSnackBar(SnackBar(
                content: Text('${product.name} ditambahkan ke keranjang
                    ),
                behavior: SnackBarBehavior.floating,
            )));
        },
        child: const Text('Add to Cart',
            style: TextStyle(color: Colors.white, fontSize: 16)),
        ),
        const SizedBox(height: 20),
    ],
),
),
),
),
],
),
),
);
}
}
```

Model/product.dart

```
class Product {
  final String name;
  final String image;
  final double price;
  final String description;

  Product({
    required this.name,
    required this.image,
    required this.price,
    required this.description,
  });
}

List<Product> productList = [
  Product(
    name: 'New Balance 327',
    image: 'assets/images/Nb327.jpg',
    price: 1450000,
    description:
      'Retro style dengan suede premium dan outsole bergaya khas 70-an. Nyaman dan stylish.',
  ),
  Product(
    name: 'New Balance 530R',
    image: 'assets/images/Nb530r.jpg',
    price: 1750000,
    description:
      'Sneaker klasik yang kembali tren. Nyaman untuk harian dengan tampilan clean.',
  ),
]
```

```
Product(  
  name: 'New Balance 574',  
  image: 'assets/images/Nb574.jpg',  
  price: 1550000,  
  description:  
    'Ikon sejati. Desain timeless dan teknologi ENCAP yang nyaman dipakai sepanjang hari.',  
)  
,  
Product(  
  name: 'NB 991v2 x Stone Island',  
  image: 'assets/images/nb991v2stoneisland.jpg',  
  price: 3850000,  
  description:  
    'Kolaborasi eksklusif NB x Stone Island – gaya eksperimental dan bahan premium.',  
)  
,  
Product(  
  name: 'New Balance 2002R',  
  image: 'assets/images/Nb2002r.jpg',  
  price: 2350000,  
  description:  
    'Desain futuristik dan empuk. Sepatu terbaik untuk mix fashion dan kenyamanan.',  
)  
];
```

Widgetd/Product_Card.dart

```
import 'package:flutter/material.dart';
import '../model/product.dart';
import '../pages/detail_page.dart';

class ProductCard extends StatefulWidget {
    final Product product;
    final int index;
    const ProductCard({super.key, required this.product, required this.index});

    @override
    State<ProductCard> createState() => _ProductCardState();
}

class _ProductCardState extends State<ProductCard>
    with SingleTickerProviderStateMixin {
    late AnimationController _controller;
    late Animation<double> _fade;
    late Animation<Offset> _slide;

    @override
    void initState() {
        super.initState();
        _controller = AnimationController(
            vsync: this, duration: const Duration(milliseconds: 600));
        _fade = Tween<double>(begin: 0, end: 1).animate(CurvedAnimation(
            parent: _controller,
            curve: Interval(0.05 * widget.index, 1.0, curve: Curves.easeOut)));
        _slide = Tween<Offset>(begin: const Offset(0, 0.1), end: Offset.zero)
            .animate(CurvedAnimation(parent: _controller, curve: Curves.easeOut));

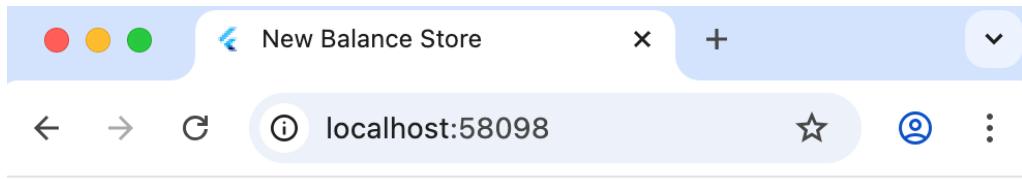
        Future.delayed(Duration(milliseconds: 100 * widget.index), () {
            if (mounted) _controller.forward();
        });
    }

    @override
    Widget build(BuildContext context) {
        return FadeTransition(
            opacity: _fade,
            child: SlideTransition(
                position: _slide,
                child: GestureDetector(
                    onTap: () {
                        Navigator.push(
                            context,
                            PageRouteBuilder(
                                transitionDuration: const Duration(milliseconds: 700),
                                pageBuilder: (_, __, ___) =>
                                    DetailPage(product: widget.product),
                            ),
                        );
                    },
                ),
            ),
        );
    }
}
```

```
        },
        child: Hero(
            tag: widget.product.image,
            child: Container(
                decoration: BoxDecoration(
                    color: Colors.white,
                    borderRadius: BorderRadius.circular(16),
                    boxShadow: [
                        BoxShadow(
                            color: Colors.black12,
                            blurRadius: 10,
                            offset: const Offset(0, 4))
                    ],
                ),
                child: Column(
                    crossAxisAlignment: CrossAxisAlignment.start,
                    children: [
                        ClipRRect(
                            borderRadius:
                                const BorderRadius.vertical(top: Radius.circular(16)),
                            child: AspectRatio(
                                aspectRatio: 1, // ✅ biar proporsional
                                child: Image.asset(
                                    widget.product.image,
                                    fit: BoxFit.cover,
                                    alignment: Alignment.center,
                                ),
                            ),
                        ),
                    ],
                ),
                Padding(
                    padding:
                        const EdgeInsets.symmetric(horizontal: 8, vertical: 10),
                    child: Column(
                        crossAxisAlignment: CrossAxisAlignment.start,
                        children: [
                            Text(widget.product.name,
                                style: const TextStyle(
                                    fontSize: 14, fontWeight: FontWeight.w600)),
                            const SizedBox(height: 4),
                            Text("Rp ${widget.product.price.toStringAsFixed(0)}",
                                style: const TextStyle(
                                    fontSize: 13, color: Colors.black54)),
                        ],
                    ),
                ),
            ),
        );
    }
}
```

```
  @override
  void dispose() {
    _controller.dispose();
    super.dispose();
  }
}
```

Screenshot Output



Welcome to NB Store

Temukan sepatu New Balance terbaik
untuk gaya dan kenyamananmu.

[Get Started](#)



← → ⌛ ⓘ localhost:58098/#/login ⭐ 🌐 ⋮

← Login

Welcome Back 

Masuk untuk melanjutkan belanja.

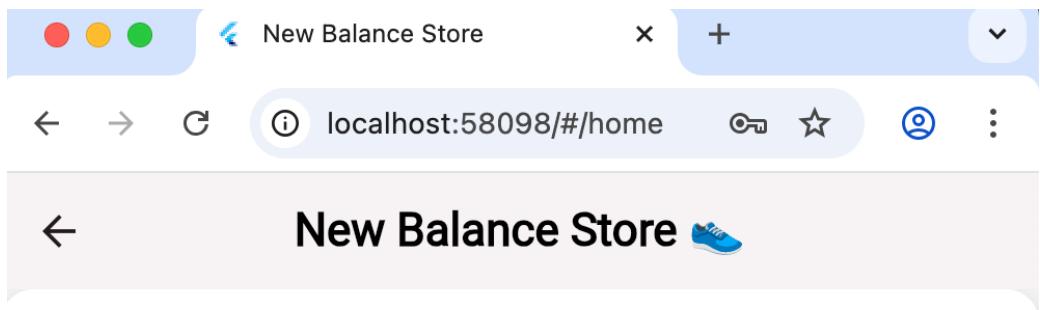
 Email

 Password



Login

Belum punya akun? Daftar nanti aja 😊



A screenshot of a web browser window. The address bar shows 'localhost:58098/#/home'. The page title is 'New Balance Store' with a small blue icon. The main content area displays a large image of a New Balance 327 sneaker, which is white with blue and grey accents. Below the image, the text 'New Balance 327' and 'Rp 1450000' are visible. The browser interface includes a back arrow, forward arrow, refresh button, and other standard navigation controls.



New Balance 327

Rp 1450000



 New Balance Store

localhost:58098/#/home

←



NB 991v2 x Stone Island

Rp 3850000

Kolaborasi eksklusif NB x Stone Island – gaya eksperimental dan bahan premium.

Add to Cart

NB 991v2 x Stone Island ditambahkan ke keranjang 

Deskripsi Program

Program terdiri dari beberapa fitur utama:

1. **Welcome Page**

Halaman pembuka aplikasi yang menampilkan gambar produk dan tombol “*Get Started*” untuk menuju ke halaman login.

2. **Login Page**

Pengguna diminta memasukkan email dan password. Jika kolom terisi, pengguna akan diarahkan ke halaman utama aplikasi.

3. **Home Page**

Menampilkan beberapa produk sepatu *New Balance* dalam bentuk grid.
(Data produk diambil dari *class model* dan gambar dari folder *assets/images/*.)

4. **Navigasi Halaman**

Program menggunakan sistem *routing* Flutter (`Navigator.pushNamed`) untuk berpindah antar halaman dengan mudah.



Tujuan Program

Menunjukkan penerapan:

- **Class model** untuk data produk,
- **Navigasi halaman** dengan `routes`,
- Dan tampilan *user interface* modern menggunakan komponen Flutter seperti `Scaffold`, `ElevatedButton`, dan `TextField`.