

## **LAPORAN PEMOGRAMAN MOBILE 2**

**Aplikasi Monitoring & Transaksi Crypto (Crypto Live Price Tracker)**



Disusun Untuk Memenuhi Tugas Ujian Tengah Semester Mata Kuliah  
Pemograman Mobile 2

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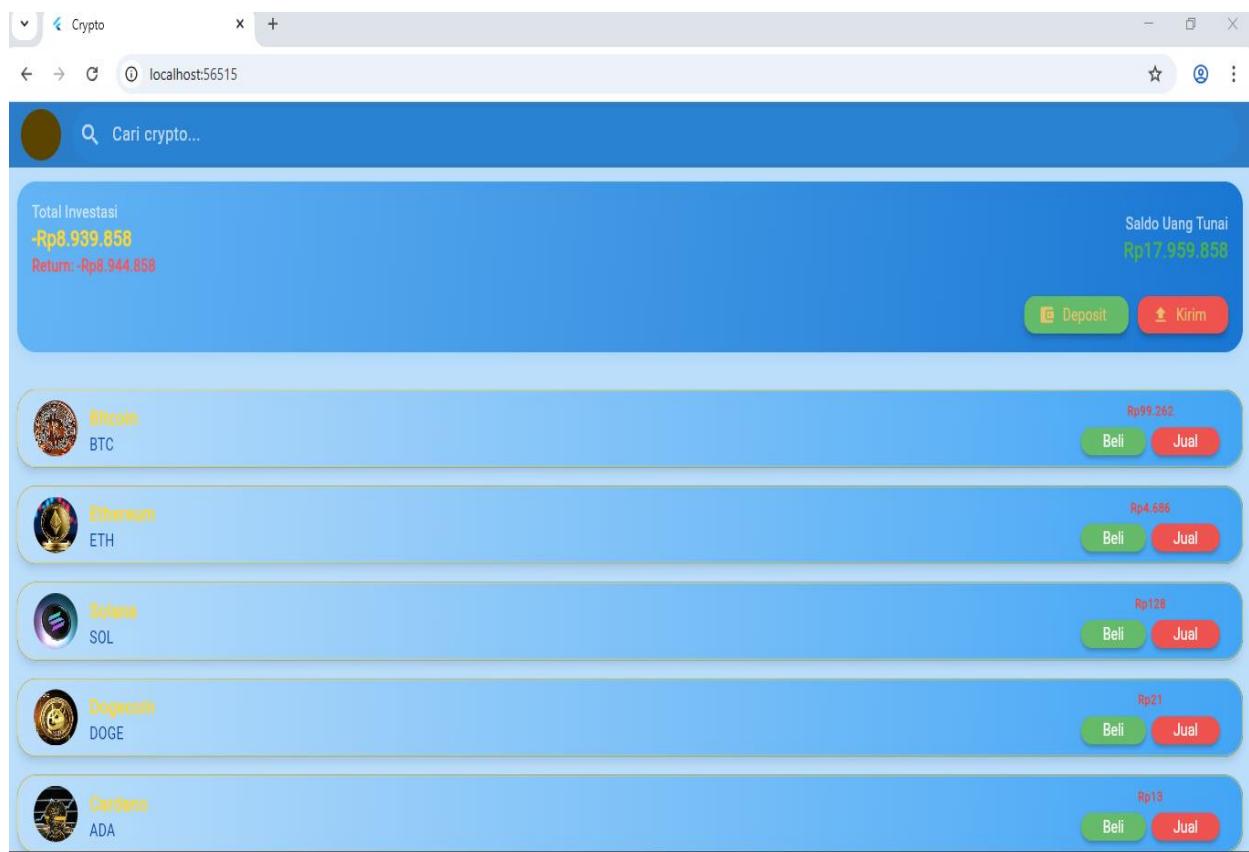
Zihan Nurakbar                  232101034

**PEROGRAM STUDI TEKNIK INFORMATIKA**  
**UNIVERSITAS TEKNOLOGI BANDUNG**  
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## A. Penjelasan Aplikasi

Aplikasi **Crypto Live Price Tracker** merupakan aplikasi mobile berbasis Flutter yang dirancang untuk mensimulasikan aktivitas transaksi aset kripto. Aplikasi ini menyediakan fitur pemantauan harga crypto secara real-time, perhitungan saldo investasi, dan beberapa fungsi transaksi seperti membeli crypto, menjual crypto, deposito uang, dan melakukan transfer saldo.

## B. Screenshot Tampilan Aplikasi



## C. Screenshot Coding

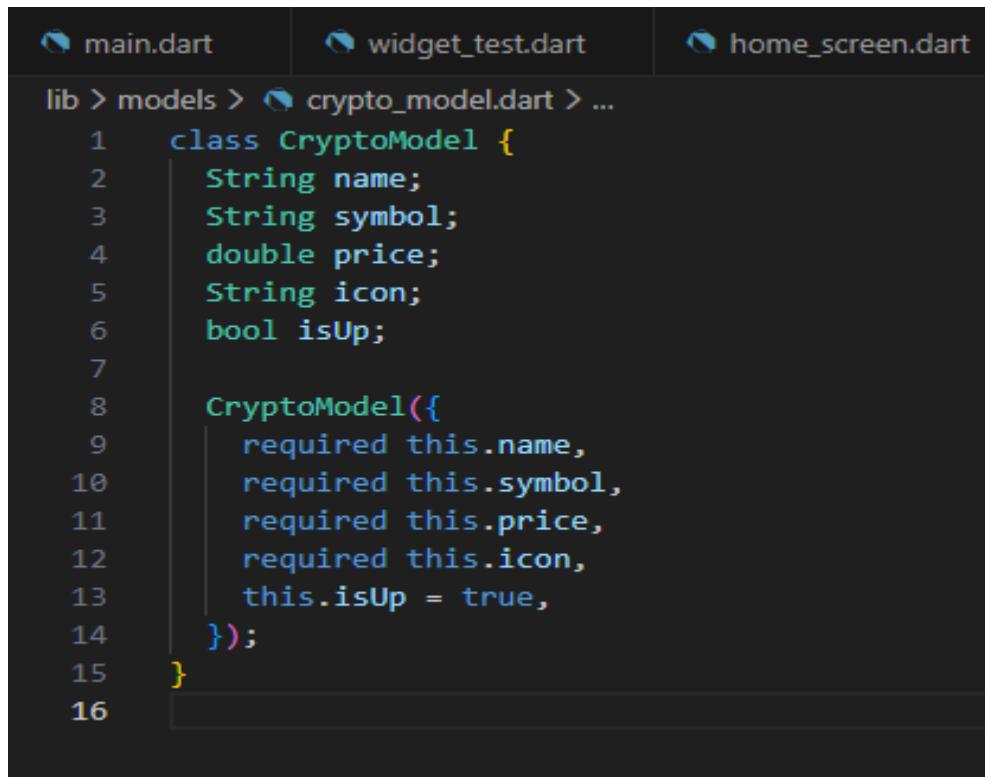
### Main.dart

```
b > main.dart > CryptoApp > build
1 import 'package:flutter/material.dart';
2 import 'screens/home_screen.dart';
3
4 Run | Debug | Profile
5 void main() {
6   runApp(const CryptoApp());
7 }
8 class CryptoApp extends StatelessWidget {
9   const CryptoApp({super.key});
10
11   @override
12   Widget build(BuildContext context) {
13     return MaterialApp(
14       title: 'Crypto',
15       debugShowCheckedModeBanner: false,
16       theme: ThemeData(
17         brightness: Brightness.dark,
18         scaffoldBackgroundColor: const Color(0xFF0D1117),
19         colorScheme: ColorScheme.fromSeed(
20           seedColor: Colors.amber,
21           brightness: Brightness.dark,
22         ), // ColorScheme.fromSeed
23         useMaterial3: true,
24       ), // ThemeData
25       home: const HomeScreen(),
26     ); // MaterialApp
27 }
28 }
```

### Data/crypto.dart

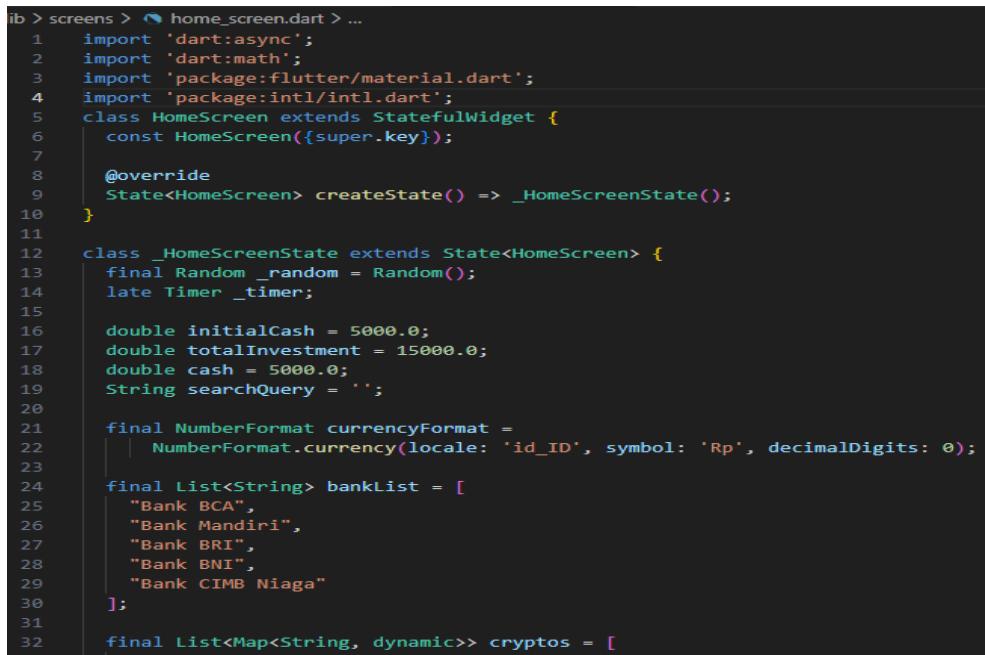
```
lib > data > crypto.dart > cryptoList
1 import '../models/crypto_model.dart';
2
3 final List<CryptoModel> cryptoList = [
4   CryptoModel(
5     name: 'Bitcoin',
6     symbol: 'BTC',
7     price: 98321.20,
8     icon: 'assets/images/btc.jpg',
9   ),
10  CryptoModel(
11    name: 'Ethereum',
12    symbol: 'ETH',
13    price: 5061.45,
14    icon: 'assets/images/ethereum.jpg',
15  ),
16  CryptoModel(
17    name: 'Solana',
18    symbol: 'SOL',
19    price: 179.25,
20    icon: 'assets/images/solana.jpg',
21  ),
22  CryptoModel(
23    name: 'Dogecoin',
24    symbol: 'DOGE',
25    price: 0.15,
26    icon: 'assets/images/doge.jpg',
27  ),
28  CryptoModel(
29    name: 'Cardano',
30    symbol: 'ADA',
31    price: 1.06,
32    icon: 'assets/images/cardano.jpg',
33  )]
```

## Models/crypto\_model.dart



```
lib > models > crypto_model.dart > ...
1   class CryptoModel {
2     String name;
3     String symbol;
4     double price;
5     String icon;
6     bool isUp;
7
8     CryptoModel({
9       required this.name,
10      required this.symbol,
11      required this.price,
12      required this.icon,
13      this.isUp = true,
14    });
15  }
16
```

## Screens/home/screen.dart



```
lib > screens > home_screen.dart > ...
1   import 'dart:async';
2   import 'dart:math';
3   import 'package:flutter/material.dart';
4   import 'package:intl/intl.dart';
5   class HomeScreen extends StatefulWidget {
6     const HomeScreen({super.key});
7
8     @override
9     State<HomeScreen> createState() => _HomeScreenState();
10   }
11
12   class _HomeScreenState extends State<HomeScreen> {
13     final Random _random = Random();
14     late Timer _timer;
15
16     double initialCash = 5000.0;
17     double totalInvestment = 15000.0;
18     double cash = 5000.0;
19     String searchQuery = '';
20
21     final NumberFormat currencyFormat =
22       NumberFormat.currency(locale: 'id_ID', symbol: 'Rp', decimalDigits: 0);
23
24     final List<String> bankList = [
25       "Bank BCA",
26       "Bank Mandiri",
27       "Bank BRI",
28       "Bank BNI",
29       "Bank CIMB Niaga"
30     ];
31
32     final List<Map<String, dynamic>> cryptos = [
```

## Widgets/crypto\_card.dart

```
1 import 'package:flutter/material.dart';
2 import '../models/crypto_model.dart';
3
4 class CryptoCard extends StatefulWidget {
5   final CryptoModel coin;
6   const CryptoCard({super.key, required this.coin});
7
8   @override
9   State<CryptoCard> createState() => _CryptoCardState();
10 }
11
12 class _CryptoCardState extends State<CryptoCard> {
13   bool isRotated = false;
14
15   @override
16   Widget build(BuildContext context) {
17     return GestureDetector(
18       onTap: () {
19         setState(() => isRotated = !isRotated);
20       },
21       child: AnimatedContainer(
22         duration: const Duration(milliseconds: 500),
23         margin: const EdgeInsets.symmetric(vertical: 8),
24         padding: const EdgeInsets.all(14),
25         decoration: BoxDecoration(
26           color: widget.coin.isUp ? Colors.green.withOpacity(0.2) : Colors.red.withOpacity(0.2),
27           borderRadius: BorderRadius.circular(16),
28           border: Border.all(
29             color: widget.coin.isUp ? Colors.greenAccent : Colors.redAccent,
30             width: 1.5,
31           ), // Border.all
32           ), // BoxDecoration
33     );
34   }
35 }
```

## Pubspec.yaml

```
pubspec.yaml
1 name: crypto
2 description: "A new Flutter project."
3 publish_to: 'none'
4
5 version: 1.0.0+1
6
7 environment:
8   sdk: ^3.9.2
9
10 dependencies:
11   flutter:
12     sdk: flutter
13
14   cupertino_icons: ^1.0.8
15   intl: ^0.18.0
16
17 dev_dependencies:
18   flutter_test:
19     sdk: flutter
20
21   flutter_lints: ^5.0.0
22
23 flutter:
24   uses-material-design: true
25
26 assets:
27   - assets/images/btc.jpg
28   - assets/images/ethereum.jpg
29   - assets/images/solana.jpg
30   - assets/images/doge.jpg
31   - assets/images/cardano.jpg
32   - assets/images/xrp.jpg
```

## **Kesimpulan**

Aplikasi ini mampu menampilkan daftar aset kripto secara dinamis menggunakan *ListView*, menghadirkan animasi fluktuasi harga setiap dua detik, serta memanfaatkan *StatefulWidget* untuk mengelola seluruh perubahan data secara real-time. Selain itu, aplikasi dilengkapi dengan berbagai fitur penting seperti transaksi beli dan jual crypto, deposit saldo, pengiriman uang, pencarian aset, serta perhitungan total investasi dan return.