

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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PEROGRAM STUDI TEKNIK INFORMATIKA

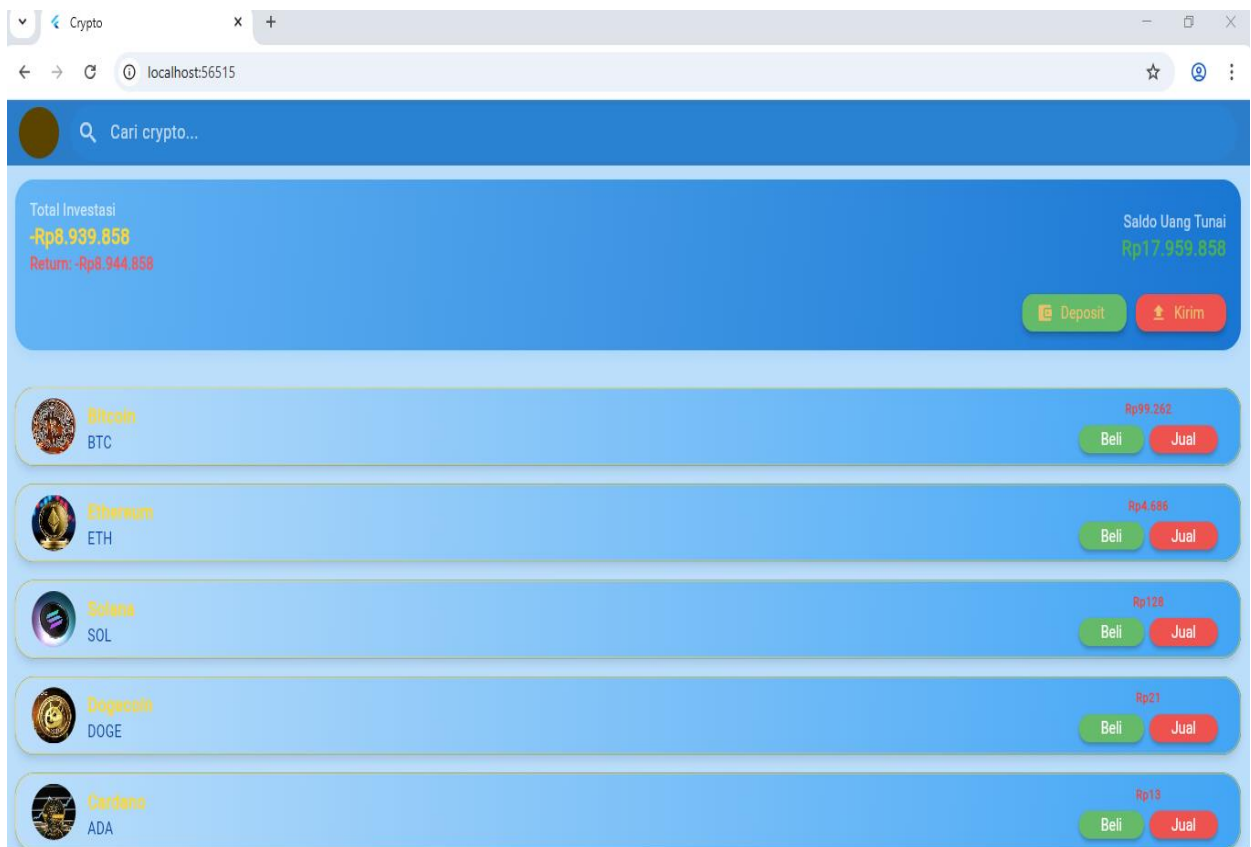
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A. Penjelasan Aplikasi

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
9  class CryptoApp extends StatelessWidget {
10    const CryptoApp({super.key});
11
12    @override
13    Widget build(BuildContext context) {
14      return MaterialApp(
15        title: 'Crypto',
16        debugShowCheckedModeBanner: false,
17        theme: ThemeData(
18          brightness: Brightness.dark,
19          scaffoldBackgroundColor: const Color(0xFF0D1117),
20          colorScheme: ColorScheme.fromSeed(
21            seedColor: Colors.amber,
22            brightness: Brightness.dark,
23          ), // ColorScheme.fromSeed
24          useMaterial3: true,
25        ), // ThemeData
26        home: const HomeScreen(),
27      ); // MaterialApp
28    }
29  }
```

Data/data_crypto.dart

```
lib > data > 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   ),
34 ]
```

Models/crypto_model.dart

```
main.dart  widget_test.dart  home_screen.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
```

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.