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Course: Mobile App development

Section: SE(5-2)

Lab # 12

Building a Device Information Viewer in Flutter

The aim of this lab is to create a Flutter application that can read hardware and system details from the device it runs on. By using a platform-specific plugin, the app retrieves information from Android and iOS natively and displays it through a Flutter interface.

➤ [Required Libraries](#)

- **Flutter SDK**
- **device_info_plus package**
- **Dart async programming**
- An Android or iOS device/emulator for testing
- Basic Material UI components

➤ [Description of the Implemented Application](#)

The application presents a single screen where the user can request device info by pressing a button. After pressing it, the app detects the current platform and gathers relevant system data using the `DeviceInfoPlugin`.



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➤ Working Mechanism

5.1 State Management

A stateful widget is used to:

- Store the device information as a string
- Track a loading state
- Update the UI when new data is available

5.2 Fetching Data

The core functionality resides in `_getDeviceInformation()`:

- The method starts by enabling a loading mode.
- Then, it creates an instance of the plugin.
- Based on the detected platform, the appropriate native API is called.
- Android devices return details like brand, model, product, SDK, etc.
- iOS devices return information like device name, OS version, and vendor ID.

5.3 Error Management

Any exceptions thrown during retrieval are caught and displayed to the user as text. The loading flag is reset afterward, ensuring the UI remains responsive.

➤ User Interface Structure

The layout includes:

- An AppBar titled “**Device Info - Lab**”
- A button with an icon to initiate data collection
- A `SelectableText` widget wrapped inside a scroll view, allowing the user to copy device information if needed
- Status text showing whether the app is currently loading or idle.



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Device Info - Lab

 Get Device Info

Platform: Android
Brand: realme
Manufacturer: realme
Model: RMX5000
Device: RE6066L1
Product: RMX5000
Android Version: 15
SDK: 35
Fingerprint: realme/RMX5000/
RE6066L1:15/UKQ1.231108.001/
U.R4T2.204ab6a-1-fe365:user/release-keys
