

## MODUL PRAKTIK

### Penggunaan API Internal Android (Informasi Perangkat, Koneksi Internet, Baterai)

- Buat Project Flutter Baru
- Pada bagian **pubspec.yaml** tambahkan dependensi berikut:  
**dependencies:**  
**flutter:**  
**sdk: flutter**  
**device\_info\_plus:**  
**battery\_plus:**  
**connectivity\_plus:**
- Jalankan perintah berikut pada terminal vscode :  
**flutter pub get**
- Tulis script/ code berikut pada **main.dart**:

```
import 'package:flutter/material.dart';
import 'package:device_info_plus/device_info_plus.dart';
import 'package:battery_plus/battery_plus.dart';
import 'package:connectivity_plus/connectivity_plus.dart';

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

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

  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Informasi Perangkat Flutter',
      theme: ThemeData(primarySwatch: Colors.blue),
      home: const DeviceInfoPage(),
      debugShowCheckedModeBanner: false,
    );
  }
}

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

  @override
  State<DeviceInfoPage> createState() => _DeviceInfoPageState();
}

class _DeviceInfoPageState extends State<DeviceInfoPage> {
```

```

// variabel untuk menyimpan hasil
String deviceModel = '-';
String manufacturer = '-';
String androidVersion = '-';
String sdkVersion = '-';
String androidId = '-';
String batteryLevel = '-';
String batteryStatus = '-';
String connectionStatus = '-';

@Override
void initState() {
    super.initState();
    _fetchAllInfo();
}

Future<void> _fetchAllInfo() async {
    await getDeviceInfo();
    await getBatteryStatus();
    await checkConnection();
}

/// === 1. Informasi Perangkat ===
Future<void> getDeviceInfo() async {
    DeviceInfoPlugin deviceInfo = DeviceInfoPlugin();
    AndroidDeviceInfo androidInfo = await deviceInfo.androidInfo;

    setState(() {
        deviceModel = androidInfo.model ?? '-';
        manufacturer = androidInfo.manufacturer ?? '-';
        androidVersion = androidInfo.version.release ?? '-';
        sdkVersion = androidInfo.version.sdkInt.toString();
        androidId = androidInfo.id ?? '-';
    });
}

/// === 2. Status Baterai ===
Future<void> getBatteryStatus() async {
    var battery = Battery();
    int level = await battery.batteryLevel;
    BatteryState state = await battery.batteryState;

    setState(() {
        batteryLevel = "$level%";
        batteryStatus =
            (state == BatteryState.charging) ? "Charging" : "Not Charging";
    });
}

/// === 3. Status Koneksi ===
Future<void> checkConnection() async {

```

```

var connectivityResult = await Connectivity().checkConnectivity();
setState(() {
  if (connectivityResult == ConnectivityResult.mobile) {
    connectionStatus = "Mobile Data";
  } else if (connectivityResult == ConnectivityResult.wifi) {
    connectionStatus = "WiFi";
  } else {
    connectionStatus = "Tidak Terhubung";
  }
});
}

@override
Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
      title: const Text("Informasi Perangkat"),
      centerTitle: true,
    ),
    body: RefreshIndicator(
      onRefresh: _fetchAllInfo,
      child: ListView(
        padding: const EdgeInsets.all(16.0),
        children: [
          const Text(
            "Informasi Perangkat",
            style: TextStyle(fontWeight: FontWeight.bold, fontSize: 18),
          ),
          infoTile("Model", deviceModel),
          infoTile("Manufacturer", manufacturer),
          infoTile("Android Version", androidVersion),
          infoTile("SDK Version", sdkVersion),
          infoTile("Android ID", androidId),
          const SizedBox(height: 20),
          const Text(
            "Status Baterai",
            style: TextStyle(fontWeight: FontWeight.bold, fontSize: 18),
          ),
          infoTile("Battery Level", batteryLevel),
          infoTile("Battery Status", batteryStatus),
          const SizedBox(height: 20),
          const Text(
            "Status Koneksi",
            style: TextStyle(fontWeight: FontWeight.bold, fontSize: 18),
          ),
          infoTile("Koneksi", connectionStatus),
          const SizedBox(height: 30),
          ElevatedButton.icon(
            onPressed: _fetchAllInfo,
            icon: const Icon(Icons.refresh),
            label: const Text("Perbarui Informasi"),
          ),
        ],
      ),
    ),
  );
}

```

```

        style: ElevatedButton.styleFrom(
          padding: const EdgeInsets.symmetric(vertical: 14),
          backgroundColor: Colors.blueAccent,
        ),
      ),
    ],
  ),
);
}

Widget infoTile(String label, String value) {
  return ListTile(
    title: Text(label),
    subtitle: Text(value),
    leading: const Icon(Icons.info_outline),
  );
}
}

```

- Simpan script/ code
- Jalankan perintah berikut pada terminal vscode:  
**flutter run**