LAPORAN GUIDED & UNGUIDED

PEMROGRAMAN PERANGKAT BERGERAK

MODUL IX

API PERANGKAT KERAS

Disusun Oleh :

Kholifahdina / 2211104004

SE-06-01

Asisten Praktikum :

Ayu Susilowati

Noviana Rizki Anisa Putri

Dosen Pengampu :

Yudha Islami Sulistya, S.Kom., M.Cs.

PROGRAM STUDI S1 REKAYASA PERANGKAT LUNAK

FAKULTAS INFORMATIKA

TELKOM UNIVERSITY PURWOKERTO

2024

Camera API

Souce Code main.dart:

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

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

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      debugShowCheckedModeBanner: false,
      title: 'API Perangkat Keras',
      theme: ThemeData(
        primarySwatch: Colors.blue,
      ),
      home: HomePage(),
    );
  }
}

class HomePage extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('API Perangkat Keras'),
      ),
      body: Center(
        child: ElevatedButton(
          onPressed: () {
            Navigator.push(
              context,
              MaterialPageRoute(builder: (context) => MyApiPage()),
            );
          },
          child: Text('Buka Halaman API'),
        ),
      ),
    );
  }
```

```
}
```

Souce Code myapi_page.dart:

```dart
import 'dart:io';
import 'package:flutter/material.dart';
import 'package:image_picker/image_picker.dart'; // Perbaikan import

class MyApiPage extends StatefulWidget {
  @override
  _MyApiPageState createState() => _MyApiPageState();
}

class _MyApiPageState extends State<MyApiPage> {
  File? _image; // Menyimpan gambar yang dipilih
  final ImagePicker _imagePicker = ImagePicker(); // ImagePicker
instance

  Future<void> _pickImage(ImageSource source) async {
    try {
      final XFile? pickedFile = await _imagePicker.pickImage(
        source: source,
        imageQuality: 50,
      );

      if (pickedFile != null) {
        setState(() {
          _image = File(pickedFile.path); // Menyimpan gambar yang dipilih
        });
      }
    } catch (e) {
      print("Gagal mengambil gambar: $e");
    }
  }

  void _clearImage() {
    setState(() {
      _image = null; // Hapus gambar
    });
  }

  @override
```
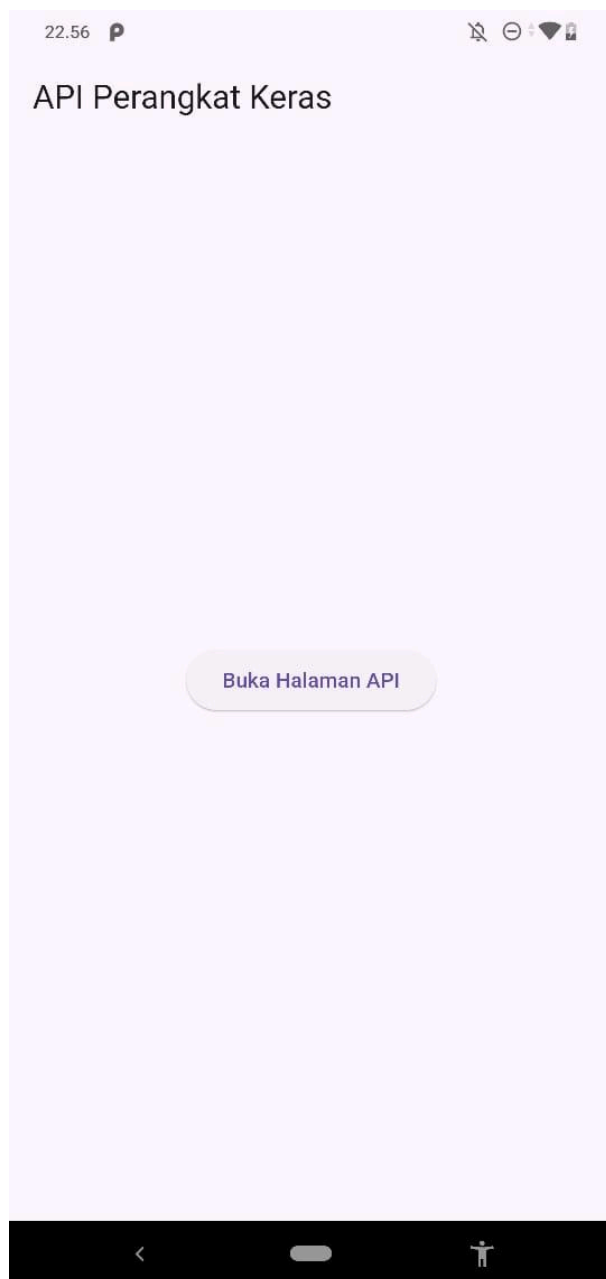
```dart
Widget build(BuildContext context) {
 return Scaffold(
  appBar: AppBar(
   title: Text('My API Page'),
  ),
  body: Column(
   mainAxisAlignment: MainAxisAlignment.center,
   children: [
    _image != null
      ? Image.file(
        _image!,
        width: 300,
        height: 300,
        fit: BoxFit.cover,
       )
      : Container(
        width: 300,
        height: 300,
        color: Colors.grey[300],
        child: Icon(
         Icons.image,
         size: 100,
         color: Colors.grey[600],
        ),
       ),
    SizedBox(height: 20),
    Row(
     mainAxisAlignment: MainAxisAlignment.center,
     children: [
      ElevatedButton(
       onPressed: () => _pickImage(ImageSource.gallery),
       child: Text('Gallery'),
      ),
      SizedBox(width: 10),
      ElevatedButton(
       onPressed: () => _pickImage(ImageSource.camera),
       child: Text('Camera'),
      ),
      SizedBox(width: 10),
      ElevatedButton(
       onPressed: _clearImage,
       child: Text('Hapus Gambar'),
      ),
     ],
    ),
```
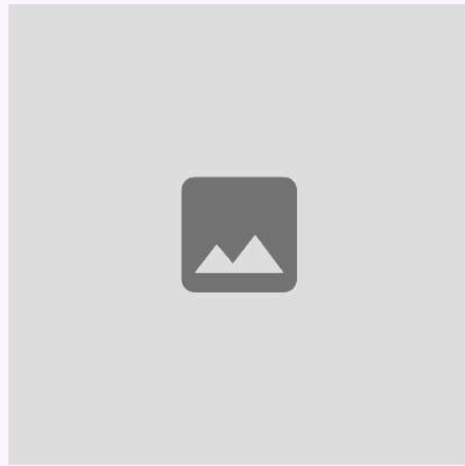
```
      ],
    ),
  );
  }
}
```

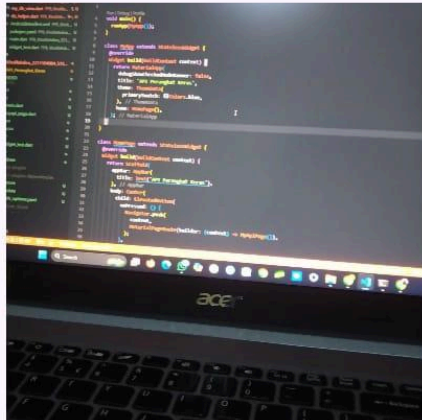## Output Programs GUIDED:

← My API Page

Gallery   Camera   Hapus Gambar

Gallery   Camera   Hapus Gambar

UNGUIDED

Jawab:

Souce Code main.dart:

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

void main() {
  runApp(MaterialApp(
    debugShowCheckedModeBanner: false,
    home: MyApiPage(),
  ));
}
```

Souce Code myapi_page.dart:

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

class MyApiPage extends StatefulWidget {
  @override
  _MyApiPageState createState() => _MyApiPageState();
}

class _MyApiPageState extends State<MyApiPage> {
  File? _image; // Menyimpan gambar yang dipilih
  final ImagePicker _imagePicker = ImagePicker(); // ImagePicker
instance

  // Fungsi untuk memilih gambar dari galeri atau kamera
  Future<void> _pickImage(ImageSource source) async {
    try {
      final XFile? pickedFile = await _imagePicker.pickImage(
        source: source,
        imageQuality: 50,
      );

      if (pickedFile != null) {
        setState(() {
```

```dart
      _image = File(pickedFile.path); // Menyimpan gambar
    });
  }
} catch (e) {
  print("Gagal mengambil gambar: $e");
}
}

// Fungsi untuk menghapus gambar dari container
void _clearImage() {
  setState(() {
    _image = null;
  });
}

@override
Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
      title: Text('Image Picker Example'),
      backgroundColor: Colors.deepPurple,
    ),
    body: Center(
      child: Column(
        mainAxisAlignment: MainAxisAlignment.center,
        children: [
          // Container untuk menampilkan gambar atau ikon placeholder
          _image != null
              ? Container(
                  width: 300,
                  height: 300,
                  decoration: BoxDecoration(
                    borderRadius: BorderRadius.circular(15),
                    image: DecorationImage(
                      image: FileImage(_image!),
                      fit: BoxFit.cover,
                    ),
                  ),
                )
              : Container(
                  width: 300,
                  height: 300,
                  decoration: BoxDecoration(
                    color: Colors.grey[200],
                    borderRadius: BorderRadius.circular(15),
```

```
        ),
        child: Icon(
          Icons.image,
          size: 100,
          color: Colors.grey[500],
        ),
      ),
    SizedBox(height: 30),
    // Row untuk tombol Camera, Gallery, dan Hapus
    Row(
      mainAxisAlignment: MainAxisAlignment.center,
      children: [
        ElevatedButton.icon(
          onPressed: () => _pickImage(ImageSource.camera),
          icon: Icon(Icons.camera_alt),
          label: Text('Camera'),
          style: ElevatedButton.styleFrom(
            backgroundColor: Colors.orange,
          ),
        ),
        SizedBox(width: 10),
        ElevatedButton.icon(
          onPressed: () => _pickImage(ImageSource.gallery),
          icon: Icon(Icons.photo),
          label: Text('Gallery'),
          style: ElevatedButton.styleFrom(
            backgroundColor: Colors.orange,
          ),
        ),
        SizedBox(width: 10),
        ElevatedButton.icon(
          onPressed: _clearImage,
          icon: Icon(Icons.delete),
          label: Text('Hapus Gambar'),
          style: ElevatedButton.styleFrom(
            backgroundColor: Colors.red,
          ),
        ),
      ],
    ),
    ],
  ),
 ),
 );
}
```

```
}
```

Output Programs UNGUIDED:
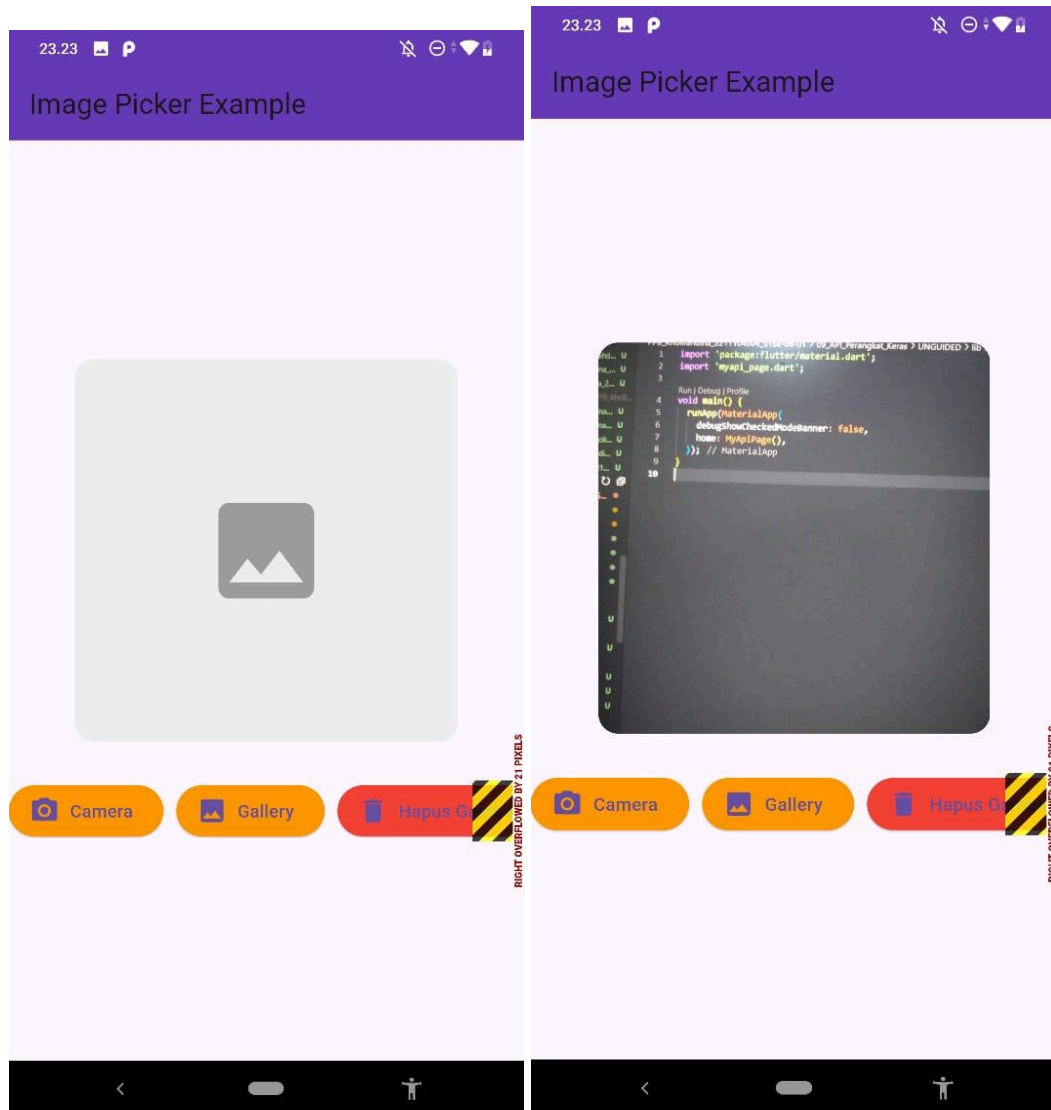
Deskripsi Program

Tujuan Program:
Program ini bertujuan untuk memberikan pengalaman praktis bagi pengguna dalam mengelola gambar melalui perangkat Android dengan fungsionalitas berikut:

1. Mengambil gambar secara langsung menggunakan kamera.
2. Memilih gambar dari galeri perangkat.
3. Menghapus gambar yang sudah dipilih atau diambil.

Program ini dirancang untuk membantu pengguna mempelajari dasar-dasar interaksi dengan perangkat keras melalui API, seperti kamera dan penyimpanan lokal, menggunakan **Flutter**.