



Mata Kuliah : Pemrograman Mobile
Program Studi : D4 – Sistem Informasi Bisnis
Semester : 5

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Jobsheet Ke- : UTS
Link Github : <https://github.com/titaniaaurelliaa/ocr-sederhana>

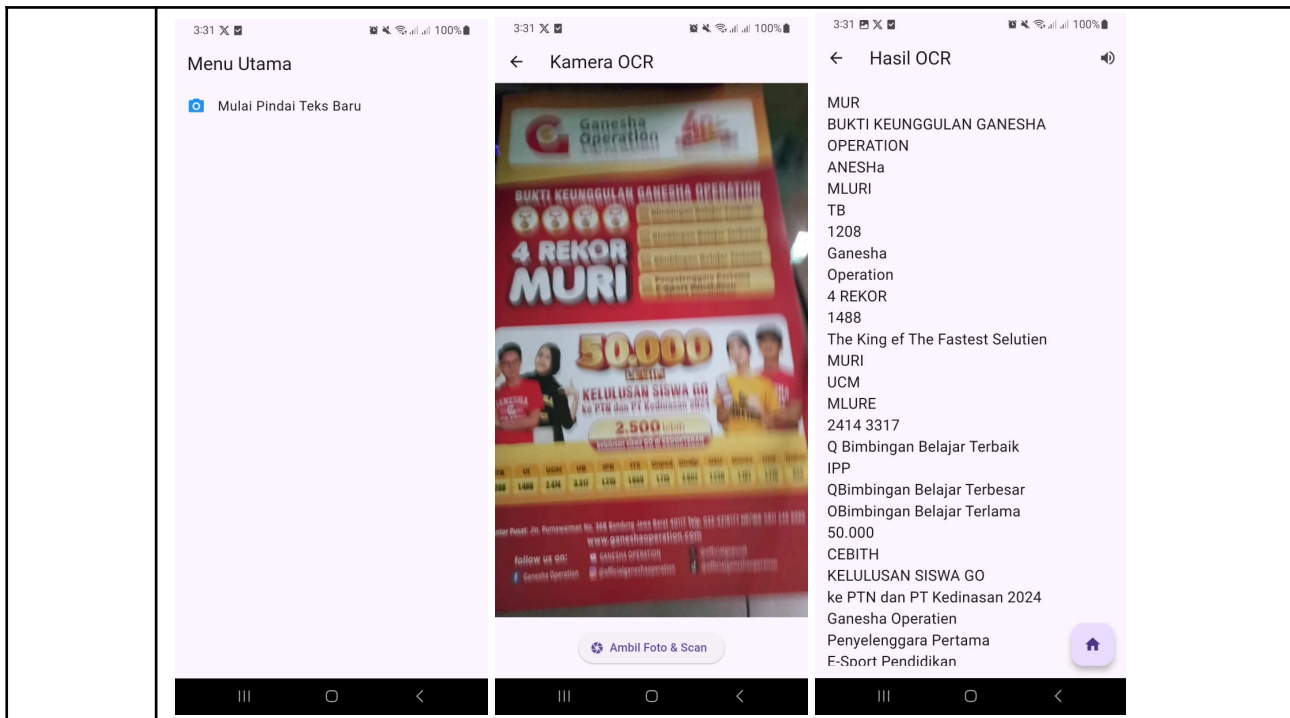
Laporan Jobsheet

Praktikum Ke-1 Modifikasi Struktur Navigasi dan Aliran

Langkah	Jawaban/Deskripsi
1	<p>Pengubahan Navigasi Home</p> <ul style="list-style-type: none">Ubah ElevatedButton di HomeScreen (lib/screens/home_screen.dart) menjadi *widget* **ListTile**.Atur ListTile: leading: Icon(Icons.camera_alt, color: Colors.blue); title: Text('Mulai Pindai Teks Baru').Fungsi onTap harus menggunakan Navigator.push() untuk ke ScanScreen. <pre>lib > screens > home_screen.dart > HomeScreen 1 import 'package:flutter/material.dart'; 2 import 'scan_screen.dart'; 3 4 class HomeScreen extends StatelessWidget { 5 const HomeScreen({super.key}); 6 7 @override 8 Widget build(BuildContext context) { 9 return Scaffold(10 appBar: AppBar(title: const Text('Menu Utama')), 11 body: ListView(12 children: [13 ListTile(14 leading: const Icon(Icons.camera_alt, color: Colors.blue), 15 title: const Text('Mulai Pindai Teks Baru'), 16 onTap: () { 17 Navigator.push(18 context, 19 MaterialPageRoute(builder: (_) => const ScanScreen()), 20); 21 }, 22) // ListTile 23] // ListView 24); // Scaffold 25 } 26 } 27 }</pre>



2	<p>Teks Utuh dan Navigasi Balik</p> <ul style="list-style-type: none">• DiResultScreen(lib/screens/result_screen.dart), hapus fungsi <code>ocrText.replaceAll('\n', '')</code> agar hasil teks ditampilkan dengan baris baru (\n) yang utuh.• Tambahkan <code>FloatingActionButton</code> dengan ikon <code>Icons.home</code>.• Ketika tombol ditekan, navigasi harus kembali langsung ke <code>HomeScreen</code> menggunakan <code>**Navigator.pushAndRemoveUntil()**</code> (atau metode yang setara) untuk menghapus semua halaman di atasnya dari stack navigasi. <pre>lib > screens > result_screen.dart > ResultScreen 1 import 'package:flutter/material.dart'; 2 import 'home_screen.dart'; 3 4 class ResultScreen extends StatelessWidget { 5 final String ocrText; 6 const ResultScreen({super.key, required this.ocrText}); 7 8 @override 9 Widget build(BuildContext context) { 10 return Scaffold(11 appBar: AppBar(12 title: const Text('Hasil Pindai'), 13), // AppBar // AppBar 14 body: Padding(15 padding: const EdgeInsets.all(16.0), 16 child: SingleChildScrollView(17 child: Text(18 ocrText, // tampilkan teks utuh dengan baris baru 19 style: const TextStyle(fontSize: 16), 20), // Text // Text 21), // SingleChildScrollView // SingleChildScrollView 22), // Padding // Padding 23 24 floatingActionButton: FloatingActionButton(25 onPressed: () { 26 Navigator.pushAndRemoveUntil(27 context, 28 MaterialPageRoute(builder: (context) => const HomeScreen()), 29 (Route<dynamic> route) => false, // hapus semua halaman di atas HomeScreen 30); 31 }, 32 child: const Icon(Icons.home), 33), // FloatingActionButton // FloatingActionButton 34); // Scaffold // Scaffold 35 } 36 }</pre>
3	Hasil run program



Praktikum Ke-2 Penyesuaian Tampilan dan Penanganan State/Error

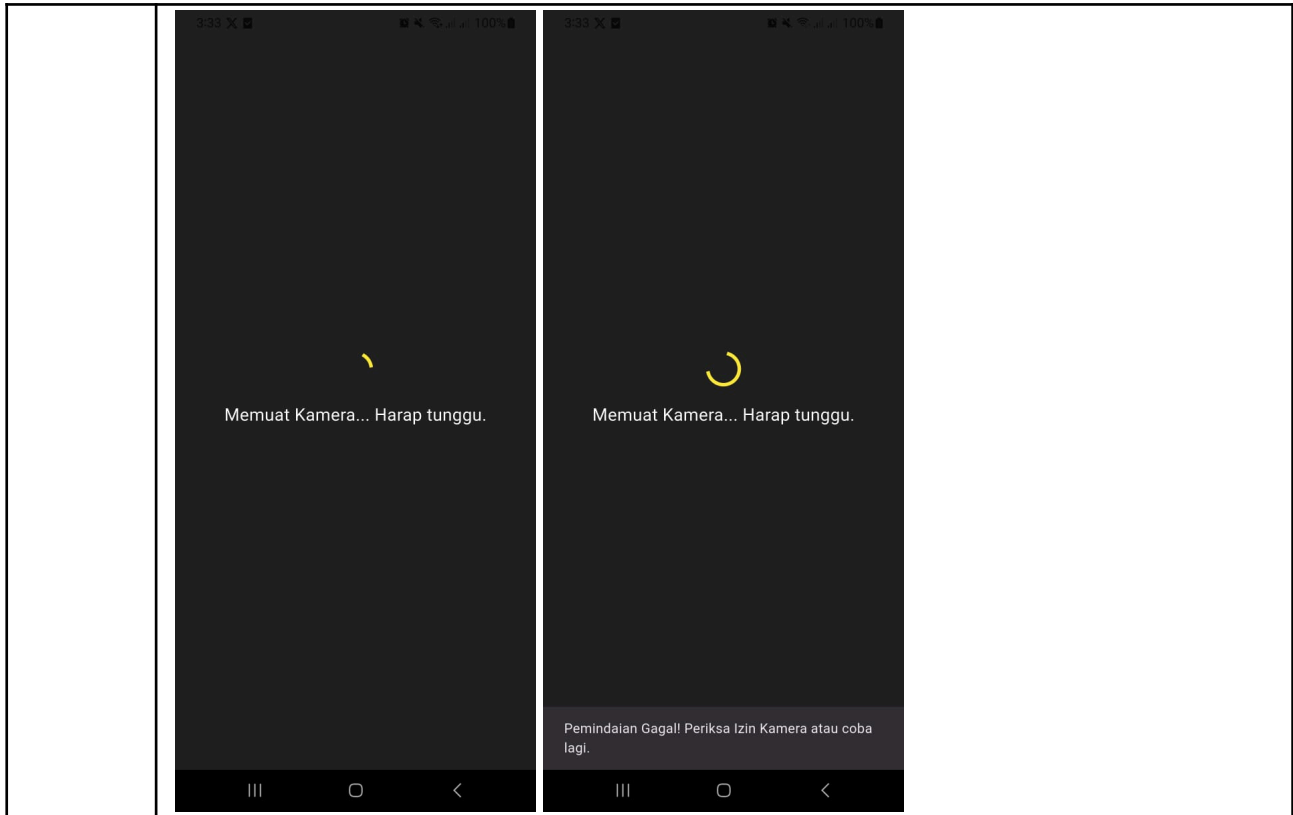
Langkah	Jawaban/Deskripsi
1	Custom Loading Screen di ScanScreen <ul style="list-style-type: none"> DiScanScreen(lib/screens/scan_screen.dart), modifikasi tampilan *loading* yang muncul sebelum kamera siap (if (!controller.value.isInitialized)) : Latar Belakang: Scaffold(backgroundColor: Colors.grey[900]). Isi: Di dalam Center, tampilkan Column berisi CircularProgressIndicator(color: Colors.yellow). Di bawah indikator, tambahkan Text('Memuat Kamera... Harap tunggu.', style: TextStyle(color: Colors.white, fontSize: 18)).



	<pre> lib > screens > scan_screen.dart > _ScanScreenState 18 class _ScanScreenState extends State<ScanScreen> { 94 @override Windsurf: Refactor Explain Generate Function Comment X 95 Widget build(BuildContext context) { 96 if (_controller == null !_controller!.value.isInitialized) { 97 return Scaffold(98 backgroundColor: Colors.grey[900], 99 body: const Center(100 child: Column(101 mainAxisAlignment: MainAxisAlignment.center, 102 children: [103 CircularProgressIndicator(color: Colors.yellow), 104 SizedBox(height: 20), 105 Text(106 'Memuat Kamera... Harap tunggu.', 107 style: TextStyle(color: Colors.white, fontSize: 18), 108), // Text 109], 110), // Column 111), // Center 112); // Scaffold 113 } </pre>
2	<p>Spesifikasi Pesan Error</p> <ul style="list-style-type: none"> • Di fungsi <code>_takePicture()</code> pada <code>ScanScreen</code>, modifikasi blok catch (e) untuk mengubah pesan <code>*error*</code> pada <code>SnackBar</code>. • Pesan <code>SnackBar</code> harus berbunyi: "Pemindaian Gagal! Periksa Izin Kamera atau coba lagi." (Hilangkan variabel <code>*error*</code> (<code>\$e</code>)). <pre> lib > screens > scan_screen.dart > _ScanScreenState 18 class _ScanScreenState extends State<ScanScreen> { Windsurf: Refactor Explain Generate Function Comment X 28 Future<void> _initCamera() async { 29 try { 30 cameras = await availableCameras(); 31 32 _controller = CameraController(33 cameras.first, 34 ResolutionPreset.medium, 35 enableAudio: false, 36); 37 38 _initializeControllerFuture = _controller!.initialize(); 39 40 await _initializeControllerFuture; 41 if (mounted) setState(() {}); 42 } catch (e) { 43 debugPrint('Error saat mengambil foto: \$e'); 44 ScaffoldMessenger.of(context).showSnackBar(45 const SnackBar(46 content: Text('Pemindaian Gagal! Periksa Izin Kamera atau coba lagi.'), 47), // SnackBar 48); 49 } 50 } </pre>
3	Hasil run program



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Praktikum Ke-3 Implementasi Plugin Text-to-Speech (TTS)

Langkah	Jawaban/Deskripsi
1	<p>Instalasi Plugin</p> <ul style="list-style-type: none">• Tambahkan *plugin* flutter_tts ke dalam file pubspec.yaml (gunakan versi terbaru yang kompatibel).• Jalankan flutter pub get. <pre>30 dependencies: 31 flutter: 32 sdk: flutter 33 google_mlkit_text_recognition: ^0.15.0 34 camera: ^0.10.5 35 path_provider: ^2.1.1 36 path: ^1.8.3 37 flutter_tts: ^3.6.5 38 39 # The following adds the Cupertino Icons font to your application. 40 # Use with the CupertinoIcons class for iOS style icons. 41 cupertino_icons: ^1.0.8</pre> <p>PROBLEMS 6 OUTPUT DEBUG CONSOLE <u>TERMINAL</u> PORTS</p> <p>PS D:\Pemrograman Mobile\ocr_sederhana> flutter pub get Resolving dependencies... Downloading packages... camera 0.10.6 (0.11.2 available) camera_avfoundation 0.9.22+1 (0.9.22+2 available) characters 1.4.0 (1.4.1 available) flutter_lints 5.0.0 (6.0.0 available) flutter_tts 3.8.5 (4.2.3 available) lints 5.1.1 (6.0.0 available) material_color_utilities 0.11.1 (0.13.0 available) meta 1.16.0 (1.17.0 available) path_provider_foundation 2.4.2 (2.4.3 available) test_api 0.7.6 (0.7.7 available) Got dependencies! 10 packages have newer versions incompatible with dependency constraints. Try `flutter pub outdated` for more information. PS D:\Pemrograman Mobile\ocr_sederhana></p>
2	<p>Konversi Widget dan Inisialisasi</p> <ul style="list-style-type: none">• Ubah ResultScreen dari StatelessWidget menjadi **StatefulWidget**.• Di initState(), inisialisasi FlutterTts dan atur bahasa pembacaan menjadi Bahasa Indonesia.• Implementasikan dispose() untuk menghentikan mesin TTS saat halaman ditutup.



```
1 import 'package:flutter/material.dart';
2 import 'package:flutter_tts/flutter_tts.dart';
3 import 'home_screen.dart';
4
5 class ResultScreen extends StatefulWidget {
6   final String ocrText;
7
8   const ResultScreen({super.key, required this.ocrText});
9
10  @override
11  State<ResultScreen> createState() => _ResultScreenState();
12 }
13
14 class _ResultScreenState extends State<ResultScreen> {
15   late final FlutterTts _flutterTts;
16   bool _isSpeaking = false;
17
18   @override
19   void initState() {
20     super.initState();
21     _flutterTts = FlutterTts();
22
23     _flutterTts.setLanguage("id-ID");
24
25     _flutterTts.setStartHandler(() {
26       setState(() => _isSpeaking = true);
27     });
28     _flutterTts.setCompletionHandler(() {
29       setState(() => _isSpeaking = false);
30     });
31     _flutterTts.setErrorHandler((msg) {
32       setState(() => _isSpeaking = false);
33     });
34   }
35
36   Future<void> _speak() async {
37     final text = widget.ocrText.isEmpty ? 'Tidak ada teks untuk dibacakan.' : widget.ocrText;
38     try {
39       await _flutterTts.stop();
40       await _flutterTts.speak(text);
41     } catch (e) {
42       if (mounted) {
43         ScaffoldMessenger.of(context).showSnackBar(
44           const SnackBar(content: Text('Gagal memulai TTS.')),
45         );
46       }
47     }
48   }
49
50   @override
51   void dispose() {
52     _flutterTts.stop();
53     super.dispose();
54   }
55 }
```

3

Fungsionalitas Pembacaan

- Tambahkan `FloatingActionButton` ke `ResultScreen` (atau ganti `AppBar` dengan action button) dengan ikon `Icons.volume_up`.
- Ketika tombol ditekan, panggil fungsi `speak()` pada `FlutterTts` untuk membacakan seluruh isi `ocrText`.



	<pre>lib > screens > result_screen.dart > _ResultScreenState 14 class _ResultScreenState extends State<ResultScreen> { 56 @override Windsurf: Refactor Explain Generate Function Comment X 57 Widget build(BuildContext context) { 58 return Scaffold(59 appBar: AppBar(60 title: const Text('Hasil OCR'), 61 actions: [62 IconButton(63 icon: const Icon(Icons.volume_up), 64 tooltip: 'Bacakan Teks', 65 onPressed: _speak, 66), // IconButton 67], 68), // AppBar 69 body: Padding(70 padding: const EdgeInsets.all(16.0), 71 child: SingleChildScrollView(72 child: SelectableText(73 widget.ocrText.isEmpty ? 'Tidak ada teks ditemukan.' : widget.ocrText, 74 style: const TextStyle(fontSize: 18), 75), // SelectableText 76), // SingleChildScrollView 77), // Padding 78 floatingActionButton: FloatingActionButton(79 onPressed: () { 80 Navigator.pushAndRemoveUntil(81 context, 82 MaterialPageRoute(builder: (_) => const HomeScreen()), 83 (route) => false, 84); 85 }, 86 child: const Icon(Icons.home), 87), // FloatingActionButton 88); // Scaffold 89 } 90 }</pre>
3	Hasil run program

