

Wellington Cesar Fonseca

DESENVOLVIMENTO FULL STACK

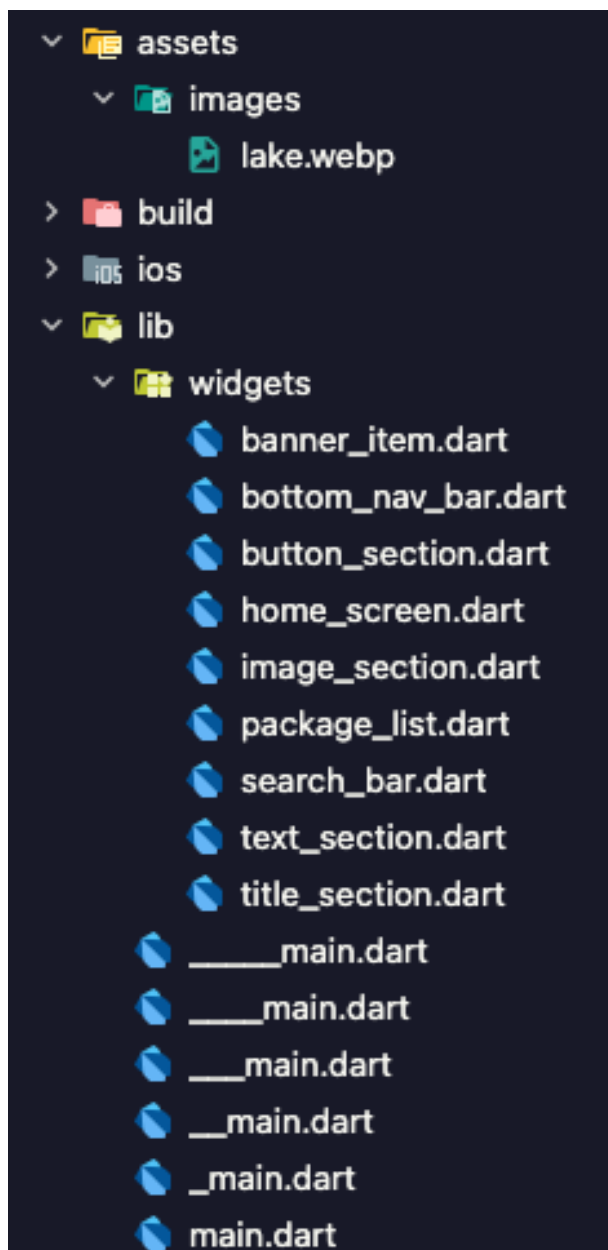
MISSÃO PRÁTICA | NÍVEL 2 | MUNDO 4

RPG0024 - POSSO CRIAR UM APP DE OUTRA FORMA

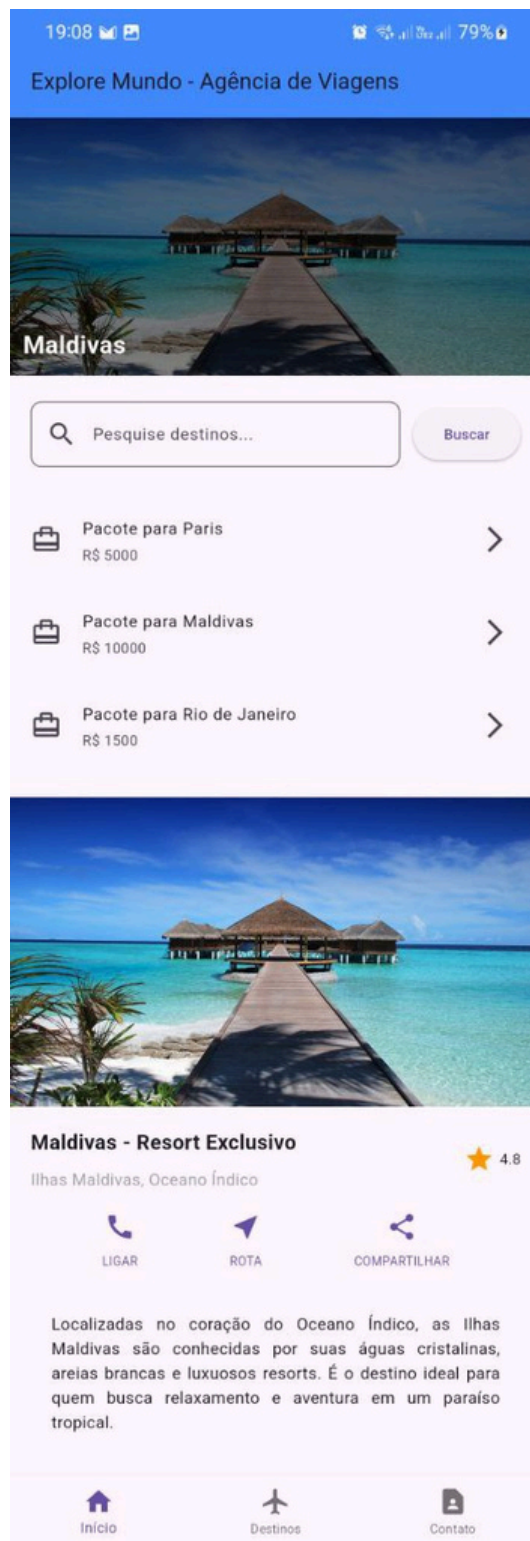
OBJETIVO

1. Instalar e configurar o Flutter SDK e o ambiente de desenvolvimento integrado (IDE) de acordo com as melhores práticas;
2. Empregar Widgets fundamentais, como MaterialApp, Scaffold, AppBar, Text e RaisedButton;
3. Aplicar diferentes Widgets para criar uma interface visual atraente e funcional;
4. Aplicar o widget ListView para exibir e gerenciar listas de dados;
5. Criar e implementar funcionalidades personalizadas para um Widget específico.

MISSÃO PRÁTICA | VAMOS CRIAR UM APP!



Estácio



lib/widgets/banner_item.dart

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

class BannerItem extends StatelessWidget {
  final String image;
  final String title;

  const BannerItem({super.key, required this.image, required this.title});

  @override
  Widget build(BuildContext context) {
    return Stack(
      fit: StackFit.expand,
      children: [
        Image.network(
          image,
          fit: BoxFit.cover,
          loadingBuilder: (context, child, loadingProgress) {
            if (loadingProgress == null) return child;
            return const Center(child: CircularProgressIndicator());
          },
          errorBuilder: (context, error, stackTrace) =>
            const Icon(Icons.error, size: 50, color: Colors.red),
        ),
        Container(color: Colors.black.withOpacity(0.5)),
        Positioned(
          bottom: 10,
          left: 10,
          child: Text(
            title,
            style: const TextStyle(
              color: Colors.white,
              fontSize: 24,
              fontWeight: FontWeight.bold,
            ),
          ),
        ),
      ],
    );
  }
}
```

lib/widgets/bottom_nav_bar.dart

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

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

  @override
  Widget build(BuildContext context) {
    return BottomNavigationBar(
      items: const [
        BottomNavigationBarItem(icon: Icon(Icons.home), label: 'Início'),
        BottomNavigationBarItem(icon: Icon(Icons.flight), label: 'Destinos'),
        BottomNavigationBarItem(
          icon: Icon(Icons.contact_page), label: 'Contato'),
      ],
    );
  }
}
```

lib/widgets/button_section.dart

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

// Seção de Botões
class ButtonSection extends StatelessWidget {
  const ButtonSection({super.key});

  // Método auxiliar para criar as colunas de botões
  Column _buildButtonColumn(Color color, IconData icon, String label) {
    return Column(
      mainAxisAlignment: MainAxisAlignment.min,
      mainAxisSize: MainAxisSize.min,
      children: [
        Icon(icon, color: color),
        Container(
          margin: const EdgeInsets.only(top: 8),
          child: Text(
            label,
            style: TextStyle(
              fontSize: 12,
              fontWeight: FontWeight.w400,
              color: color,
            ),
          ),
        ),
      ],
    );
  }

  @override
  Widget build(BuildContext context) {
    // Cor padrão
    Color color = Theme.of(context).primaryColor;

    // Criação da linha de botões
    return Row(
      mainAxisAlignment: MainAxisAlignment.spaceEvenly,
      children: [
        _buildButtonColumn(color, Icons.call, 'LIGAR'),
        _buildButtonColumn(color, Icons.near_me, 'ROTA'),
        _buildButtonColumn(color, Icons.share, 'COMPARTILHAR'),
      ],
    );
  }
}
```

lib/widgets/home_screen.dart

```
import 'package:flutter/material.dart';
import 'banner_item.dart';
import 'package_list.dart';
import 'bottom_nav_bar.dart';
import 'title_section.dart';
import 'text_section.dart';
import 'button_section.dart';
import 'search_bar.dart';
import 'image_section.dart';

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

  @override
  State<HomeScreen> createState() => _HomeScreenState();
}

class _HomeScreenState extends State<HomeScreen> {
  final PageController _pageController = PageController();

  List<Map<String, String>> filteredPackages = [];
  final List<Map<String, String>> packages = [
    {'title': 'Pacote para Paris', 'price': '5000'},
    {'title': 'Pacote para Maldivas', 'price': '10000'},
    {'title': 'Pacote para Rio de Janeiro', 'price': '1500'},
  ];

  @override
  void initState() {
    super.initState();

    // Alternar imagens automaticamente no banner
    Future.delayed(const Duration(seconds: 4), () {
      _pageController.nextPage(
        duration: const Duration(milliseconds: 500), curve: Curves.easeInOut);
    });

    filteredPackages = packages;
  }

  void _filterPackages(String query) {
    setState(() {
      if (query.isEmpty) {
        filteredPackages = packages;
      } else {
        filteredPackages = packages
          .where((pkg) =>
            pkg['title']!.toLowerCase().contains(query.toLowerCase()))
          .toList();
      }
    });
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: const Text('Explore Mundo - Agência de Viagens'),
        backgroundColor: Colors.blueAccent,
      ),
      body: ListView(
        children: [
          // Banner
          SizedBox(
            height: 200,
            child: PageView(
              controller: _pageController,
              children: const [
                BannerItem(
                  image:
                    'https://cdn.pixabay.com/photo/2018/04/25/09/26/eiffel-tower-3349075_1280.jpg',
                  title: 'Paris'),
                BannerItem(
                  image:
                    'https://cdn.pixabay.com/photo/2015/03/09/18/34/beach-666122_1280.jpg',
                  title: 'Maldivas'),
                BannerItem(
                  image:
                    'https://cdn.pixabay.com/photo/2014/02/22/14/16/rio-de-janeiro-272052_1280.jpg',
                  title: 'Rio de Janeiro'),
              ],
            ),
          const SizedBox(height: 20),
          // Barra de Pesquisa
          PrivateSearchBar(
            onSearch: _filterPackages,
          ),
          const SizedBox(height: 20),
          // Lista de pacotes
          PackageList(filteredPackages: filteredPackages),

          const SizedBox(height: 20),
          // Seção de Imagem Local
          const ImageSection(),

          // Seção de Título
          const TitleSection(),

          // Seção de Botões
          const ButtonSection(),

          // Seção de Texto
          const TextSection(),
        ],
      ),
      bottomNavigationBar: const BottomNavBar(),
    );
  }
}
```

lib/widgets/image_section.dart

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

// Seção de Imagem
class ImageSection extends StatelessWidget {
  const ImageSection({super.key});

  @override
  Widget build(BuildContext context) {
    return Image.asset(
      'assets/images/lake.webp', // Caminho da imagem
      width: double.infinity, // Largura total
      height: 240, // Altura fixa
      fit: BoxFit.cover, // Ajuste para cobrir a área
    );
  }
}
```

lib/widgets/package_list.dart

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

class PackageList extends StatelessWidget {
  // Adiciona o parâmetro filteredPackages na classe
  final List<Map<String, String>> filteredPackages;

  // Construtor atualizado para aceitar o parâmetro filteredPackages
  const PackageList({super.key, required this.filteredPackages});

  @override
  Widget build(BuildContext context) {
    return ListView.builder(
      shrinkWrap: true,
      physics: const NeverScrollableScrollPhysics(),
      itemCount: filteredPackages.length,
      itemBuilder: (context, index) {
        final package = filteredPackages[index];
        return ListTile(
          leading: const Icon(Icons.card_travel),
          title: Text(package['title']),
          subtitle: Text('R$ ${package['price']}'),
          trailing: const Icon(Icons.arrow_forward_ios),
          onTap: () {
            ScaffoldMessenger.of(context).showSnackBar(
              SnackBar(content: Text('Abrindo ${package['title']}')),
            );
          },
        );
      },
    );
  }
}
```

lib/widgets/search_bar.dart

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

class PrivateSearchBar extends StatelessWidget {
  final Function(String) onSearch; // Função para capturar a pesquisa

  const PrivateSearchBar({super.key, required this.onSearch});

  @override
  Widget build(BuildContext context) {
    return Padding(
      padding: const EdgeInsets.symmetric(horizontal: 16),
      child: Row(
        children: [
          // Campo de pesquisa
          Expanded(
            child: TextField(
              onChanged: onSearch, // Captura a entrada do usuário
              decoration: InputDecoration(
                hintText: 'Pesquise destinos...',
                prefixIcon: const Icon(Icons.search),
                border: OutlineInputBorder(
                  borderRadius: BorderRadius.circular(8),
                ),
              ),
            ),
            const SizedBox(width: 10),

            // Botão de busca
            ElevatedButton(
              onPressed: () {
                ScaffoldMessenger.of(context).showSnackBar(
                  const SnackBar(
                    content: Text('Função de pesquisa em desenvolvimento!'),
                  ),
                );
              },
              child: const Text('Buscar'),
            ),
          ],
        ),
      ),
    );
  }
}
```

lib/widgets/text_section.dart

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

// Seção de Texto
class TextSection extends StatelessWidget {
  const TextSection({super.key});

  @override
  Widget build(BuildContext context) {
    return Container(
      padding: const EdgeInsets.all(32), // Espaçamento interno
      child: const Text(
        'Localizadas no coração do Oceano Índico, as Ilhas Maldivas são conhecidas '
        'por suas águas cristalinas, areias brancas e luxuosos resorts. É o destino '
        'ideal para quem busca relaxamento e aventura em um paraíso tropical.',
        style: TextStyle(fontSize: 16, height: 1.5),
        softWrap: true, // Permite que o texto quebre automaticamente
        textAlign: TextAlign.justify, // Alinhamento justificado
      ),
    );
  }
}
```

lib/widgets/title_section.dart

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

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

  @override
  Widget build(BuildContext context) {
    return Padding(
      padding: const EdgeInsets.all(16),
      child: Row(
        children: [
          // Coluna expandida para o texto
          Expanded(
            child: Column(
              crossAxisAlignment: CrossAxisAlignment.start,
              children: [
                Text(
                  'Maldivas - Resort Exclusivo',
                  style: const TextStyle(
                    fontSize: 20,
                    fontWeight: FontWeight.bold,
                  ),
                ),
                const SizedBox(height: 8),
                Text(
                  'Ilhas Maldivas, Oceano Índico',
                  style: TextStyle(
                    fontSize: 16,
                    color: Colors.grey[500],
                  ),
                ),
              ],
            ),
          ),
          // Ícone de estrela
          const Icon(
            Icons.star,
            color: Colors.orange,
          ),
          const SizedBox(width: 4),
          // Número de avaliações
          const Text('4.8'),
        ],
      ),
    );
  }
}
```

lib/main.dart

```
import 'package:flutter/material.dart';
import 'widgets/home_screen.dart';

void main() => runApp(const MyApp());

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

  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      debugShowCheckedModeBanner: false,
      title: 'Explore Mundo',
      theme: ThemeData(
        primarySwatch: Colors.blue,
      ),
      home: const HomeScreen(),
    );
  }
}
```