Bharatiya Vidya Bhavan's
SARDAR PATEL INSTITUTE OF TECHNOLOGY
(Autonomous Institute Affiliated to University of Mumbai)
Munshi Nagar, Andheri (W), Mumbai – 400 058.
Department of Computer Science and Engineering

Experiment	5
Aim	Create an app for MCA department using side and tabs navigation
Objective	• To Create MCA App using UI Component • To Develop SideDrawer and Tabs Navigation in one application • To Use 60-30-10 rule • To Use Webview concept • To Use Expandable Card View Concept
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Technology used	Framework- Flutter, Tool used - Android Studio Programming- Dart
Task	Create an app for MCA department using side and tabs navigation consisting of the following: 1) Faculty information with Expandable Card view 2) Department Vision and Mission with expandable Card view 3) Notification of any upcoming event (links to the website). 4) WebView 5) Feedback form along with rating

Code with proper label	**main.dart :**
	`import 'package:flutter/material.dart';`
	`import 'splash_screen.dart'; // Import the Splash Screen`
	`void main() {`
	`  runApp(const MainApp());`
	`}`
	`class MainApp extends StatelessWidget {`
	`  const MainApp({super.key});`
	`  @override`
	`  Widget build(BuildContext context) {`
	`  return MaterialApp(`
	`  debugShowCheckedModeBanner: false,`
	`  home: SplashScreen(), // Start with SplashScreen`
	`  );`
	`  }`
	`}`
	
	about.dart :
	`import 'package:flutter/material.dart';`

```
class AboutPage extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: const Text(
          "About Us",
          style: TextStyle(fontSize: 16, color:
Colors.white),
        ),
        iconTheme: const IconThemeData(color:
Colors.white), // Make back arrow white
        backgroundColor: Colors.black,
      ),
      body: SingleChildScrollView(
        padding: const EdgeInsets.all(16.0),
        child: Column(
          crossAxisAlignment: CrossAxisAlignment.start,
          children: [
            Center(
              child: Image.asset(
                'assets/images/logo3.0.png',
                height: 100,
                errorBuilder: (context, error,
stackTrace) =>
                    const Icon(Icons.image, size: 50,
color: Colors.red),
              ),
            ),
            const SizedBox(height: 20),
            const Text(
              "Bharatiya Vidya Bhavans Sardar Patel
Institute of Technology",
              style: TextStyle(
                fontSize: 20,
                fontWeight: FontWeight.bold,
                color: Colors.black,
              ),
              textAlign: TextAlign.center,
            ),
            const SizedBox(height: 10),
            const Text(
              "Autonomous Institute Affiliated to Mumbai
```

```
University",
              style: TextStyle(
                fontSize: 16,
                fontWeight: FontWeight.w500,
                color: Colors.black54,
              ),
              textAlign: TextAlign.center,
            ),
            const SizedBox(height: 20),
            const Text(
              "About Our Institute",
              style: TextStyle(
                fontSize: 18,
                fontWeight: FontWeight.bold,
                color: Colors.black,
              ),
            ),
            const SizedBox(height: 10),
            const Text(
              "Sardar Patel Institute of Technology
(SPIT) is one of the premier engineering institutes,
known for its academic excellence, industry-oriented
programs, and strong alumni network. Established with a
vision to impart quality education, SPIT continues to
lead in innovation and research-driven learning.",
              style: TextStyle(fontSize: 16, color:
Colors.black87),
            ),
            const SizedBox(height: 20),
            const Text(
              "Our Vision",
              style: TextStyle(
                fontSize: 18,
                fontWeight: FontWeight.bold,
                color: Colors.black,
              ),
            ),
            const SizedBox(height: 10),
            const Text(
              "To develop globally competent and ethical
professionals through excellence in education, research,
and innovation.",
              style: TextStyle(fontSize: 16, color:
```

```
Colors.black87),
            ),
            const SizedBox(height: 20),
            const Text(
              "Our Mission",
              style: TextStyle(
                fontSize: 18,
                fontWeight: FontWeight.bold,
                color: Colors.black,
              ),
            ),
            const SizedBox(height: 10),
            const Text(
              "1. Provide high-quality technical
education with state-of-the-art infrastructure and
facilities.\n\n"
              "2. Foster an environment of research,
innovation, and entrepreneurship.\n\n"
              "3. Instill ethical values and leadership
qualities to create responsible professionals.",
              style: TextStyle(fontSize: 16, color:
Colors.black87),
            ),
            const SizedBox(height: 20),
            const Text(
              "Contact Us",
              style: TextStyle(
                fontSize: 18,
                fontWeight: FontWeight.bold,
                color: Colors.black,
              ),
            ),
            const SizedBox(height: 10),
            const Text(
              "Address: Bhavan's Campus, Munshi Nagar,
Andheri West, Mumbai - 400058\n"
              "Phone: +91 22 26707440\n"
              "Email: info@spit.ac.in",
              style: TextStyle(fontSize: 16, color:
Colors.black87),
            ),
          ],
        ),
```

```
      ),
    );
  }
}
```

faculty.dart :

```
import 'package:flutter/material.dart';
import 'package:url_launcher/url_launcher.dart';
void main() {
  runApp(MaterialApp(
    debugShowCheckedModeBanner: false,
    home: MainNavigationPage(),
  ));
}
class MainNavigationPage extends StatefulWidget {
  @override
  _MainNavigationPageState createState() =>
_MainNavigationPageState();
}
class _MainNavigationPageState extends
State<MainNavigationPage> {
  int _currentIndex = 0;
  final List<Widget> _pages = [
    Center(child: Text('Home Page')),
    Center(child: Text('About Page')),
    FacultyPage(),
    Center(child: Text('Vision & Mission Page')),
    Center(child: Text('Notifications Page')),
  ];
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: _pages[_currentIndex],
      bottomNavigationBar: BottomNavigationBar(
        currentIndex: _currentIndex,
        onTap: (index) {
          setState(() {
            _currentIndex = index;
          });
        },
        type: BottomNavigationBarType.fixed,
        items: const [
          BottomNavigationBarItem(icon: Icon(Icons.home),
```

```
label: "Home"),
          BottomNavigationBarItem(icon: Icon(Icons.info),
label: "About"),
          BottomNavigationBarItem(icon:
Icon(Icons.school), label: "Faculty"),
          BottomNavigationBarItem(icon:
Icon(Icons.visibility), label: "Vision & Mission"),
          BottomNavigationBarItem(icon:
Icon(Icons.notifications), label: "Notifications"),
        ],
      ),
    );
  }
}

// -------------------- Faculty Page --------------------

class FacultyPage extends StatelessWidget {
  final List<Faculty> facultyList = [
    Faculty(
      name: "Prof Harshil Kanakia",
      designation: "Asst. Professor",
      contact: "harshil_kanakia@spit.ac.in",
      image: "assets/images/harshil_sir.png",
      profileUrl:
"https://mca.spit.ac.in/index.php/prof-harshil-kanakia/",
    ),
    Faculty(
      name: "Prof. Sakina Shaikh",
      designation: "Asst. Professor",
      contact: "sakina_shaikh@spit.ac.in",
      image: "assets/images/sakina_mam.png",
      profileUrl:
"https://mca.spit.ac.in/index.php/sakina-salmani/",
    ),
    Faculty(
      name: "Prof. Aarti Karande",
      designation: "Asst. Professor",
      contact: "aarti_karande@spit.ac.in",
      image: "assets/images/Aarti_mam.png",
      profileUrl:
"https://mca.spit.ac.in/index.php/aarti-karande/",
    ),
```

```
    Faculty(
      name: "Dr. Nikhita Mangaonkar",
      designation: "Asst. Professor",
      contact: "nikhita_mangaonkar@spit.ac.in",
      image: "assets/images/nikhita_mam.jpg",
      profileUrl:
"https://mca.spit.ac.in/index.php/nikhita-mangaonkar/",
    ),
    Faculty(
      name: "Dr. Pallavi Thakur",
      designation: "Asst. Professor",
      contact: "pallavi_thakur@spit.ac.in",
      image: "assets/images/pallavi_mam.png",
      profileUrl:
"https://mca.spit.ac.in/index.php/pallavi-thakur/",
    ),
  ];

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('Our Faculty', style:
TextStyle(color: Colors.white)),
        backgroundColor: Colors.black,
        iconTheme: IconThemeData(color: Colors.white),
      ),
      body: Padding(
        padding: EdgeInsets.all(12.0),
        child: ListView.builder(
          itemCount: facultyList.length,
          itemBuilder: (context, index) {
            return FacultyCard(faculty:
facultyList[index]);
          },
        ),
      ),
    );
  }
}

// -------------------- Faculty Model
--------------------
```

```dart
class Faculty {
  final String name;
  final String designation;
  final String contact;
  final String image;
  final String profileUrl;

  Faculty({
    required this.name,
    required this.designation,
    required this.contact,
    required this.image,
    required this.profileUrl,
  });
}

// -------------------- Faculty Card --------------------

class FacultyCard extends StatefulWidget {
  final Faculty faculty;

  FacultyCard({required this.faculty});

  @override
  _FacultyCardState createState() => _FacultyCardState();
}

class _FacultyCardState extends State<FacultyCard> {
  bool _isExpanded = false;

  void _launchURL(String url) async {
    final Uri uri = Uri.parse(url);
    if (await canLaunchUrl(uri)) {
      await launchUrl(uri);
    } else {
      throw "Could not launch $url";
    }
  }

  @override
  Widget build(BuildContext context) {
    return Container(
```

```
      margin: EdgeInsets.symmetric(vertical: 10),
      padding: EdgeInsets.all(16),
      decoration: BoxDecoration(
        color: Colors.orange.shade50,
        borderRadius: BorderRadius.circular(15),
        boxShadow: [
          BoxShadow(
            color: Colors.black12,
            blurRadius: 6,
            offset: Offset(0, 3),
          ),
        ],
      ),
      child: Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: [
          Row(
            children: [
              CircleAvatar(
                radius: 30,
                backgroundImage:
AssetImage(widget.faculty.image),
              ),
              SizedBox(width: 12),
              Expanded(
                child: Column(
                  crossAxisAlignment:
CrossAxisAlignment.start,
                  children: [
                    Text(
                      widget.faculty.name,
                      style: TextStyle(fontSize: 18,
fontWeight: FontWeight.bold, color: Colors.deepOrange),
                    ),
                    Text(
                      widget.faculty.designation,
                      style: TextStyle(fontSize: 14,
color: Colors.black87),
                    ),
                  ],
                ),
              ),
              IconButton(
```

```
                icon: Icon(
                  _isExpanded ? Icons.expand_less :
Icons.expand_more,
                  color: Colors.orange.shade800,
                ),
                onPressed: () {
                  setState(() {
                    _isExpanded = !_isExpanded;
                  });
                },
              ),
            ],
          ),
          if (_isExpanded)
            Padding(
              padding: const EdgeInsets.only(top: 10),
              child: Column(
                crossAxisAlignment:
CrossAxisAlignment.start,
                children: [
                  Text(
                    "Contact: ${widget.faculty.contact}",
                    style: TextStyle(fontSize: 14, color:
Colors.black87),
                  ),
                  SizedBox(height: 12),
                  ElevatedButton(
                    style: ElevatedButton.styleFrom(
                      backgroundColor: Colors.orange,
                      shape: RoundedRectangleBorder(
                        borderRadius:
BorderRadius.circular(8),
                      ),
                      padding:
EdgeInsets.symmetric(vertical: 10),
                    ),
                    onPressed: () =>
_launchURL(widget.faculty.profileUrl),
                    child: Center(
                      child: Text(
                        "View Profile",
                        style: TextStyle(fontSize: 14,
fontWeight: FontWeight.bold, color: Colors.white),
```

```
                    ),
                  ),
                ),
              ],
            ),
          ),
        ],
      ),
    );
  }
}
```

feedback.dart :

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

class FeedbackForm extends StatefulWidget {
  @override
  _FeedbackFormState createState() =>
_FeedbackFormState();
}

class _FeedbackFormState extends State<FeedbackForm> {
  final TextEditingController _commentController =
TextEditingController();
  double _rating = 0.0;

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text(
          'MCA Department Feedback',
          style: TextStyle(color: Colors.white), // Title
in white
        ),
        backgroundColor: Colors.black,
        iconTheme: IconThemeData(color: Colors.white), //
Back arrow in white
      ),
      body: Center(
```

```
        child: Card(
          elevation: 5,
          shape: RoundedRectangleBorder(borderRadius:
BorderRadius.circular(15)),
          color: Colors.white,
          margin: EdgeInsets.all(20),
          child: Padding(
            padding: EdgeInsets.all(20),
            child: Column(
              mainAxisSize: MainAxisSize.min,
              crossAxisAlignment:
CrossAxisAlignment.start,
              children: [
                Text(
                  'Your Feedback',
                  style: TextStyle(
                    fontSize: 20,
                    fontWeight: FontWeight.bold,
                    color: Colors.orange,
                  ),
                ),
                SizedBox(height: 10),
                Text(
                  'Rate your experience:',
                  style: TextStyle(fontSize: 16,
fontWeight: FontWeight.w500),
                ),
                SizedBox(height: 5),
                RatingBar.builder(
                  initialRating: _rating,
                  minRating: 1,
                  direction: Axis.horizontal,
                  allowHalfRating: true,
                  itemCount: 5,
                  itemPadding:
EdgeInsets.symmetric(horizontal: 4.0),
                  itemBuilder: (context, _) => Icon(
                    Icons.star,
                    color: Colors.orange,
                  ),
                  onRatingUpdate: (rating) {
                    setState(() {
                      _rating = rating;
```

```
                    });
                  },
                ),
                SizedBox(height: 10),
                TextField(
                  controller: _commentController,
                  maxLines: 4,
                  decoration: InputDecoration(
                    hintText: 'Enter your comments
here...',
                    border: OutlineInputBorder(),
                  ),
                ),
                SizedBox(height: 20),
                Align(
                  alignment: Alignment.centerRight,
                  child: ElevatedButton(
                    onPressed: () {
                      String comment =
_commentController.text;
                      if (comment.isNotEmpty || _rating >
0) {

ScaffoldMessenger.of(context).showSnackBar(
                          SnackBar(content:
Text('Feedback submitted successfully!')),
                        );
                        _commentController.clear();
                        setState(() {
                          _rating = 0.0;
                        });
                      }
                    },
                    style: ElevatedButton.styleFrom(
                      backgroundColor: Colors.black,
                    ),
                    child: Text(
                      'Submit',
                      style: TextStyle(color:
Colors.white),
                    ),
                  ),
                ),
```

```
              ],
            ),
          ),
        ),
      ),
    );
  }
}
```

home.dart :

```dart
import 'package:flutter/material.dart';
import 'package:carousel_slider/carousel_slider.dart';
import 'package:flutter_clg/faculty.dart';
import 'side_nav.dart';
import 'about.dart'; // Import About Page
import 'visson.dart';
import 'notification.dart'; // Import Notifications Page

class HomePage extends StatefulWidget {
  @override
  _HomePageState createState() => _HomePageState();
}

class _HomePageState extends State<HomePage> {
  int _currentIndex = 0; // Default index for Home

  final List<Widget> _pages = [
    HomePageContent(), // Home Page Content
    AboutPage(),
    FacultyPage(),
    VisionMissionPage(),
    NotificationsPage(),
  ];

  @override
  Widget build(BuildContext context) {
    return SafeArea(
      child: Scaffold(
        drawer: SideNav(),
        appBar: AppBar(
          backgroundColor: Colors.black,
          title: Row(
```

```
            children: [
              Image.asset(
                'assets/images/logo3.0.png',
                height: 40,
                errorBuilder: (context, error,
stackTrace) =>
                    const Icon(Icons.image, color:
Color.fromARGB(255, 214, 10, 10)),
              ),
              const SizedBox(width: 10),
              const Column(
                crossAxisAlignment:
CrossAxisAlignment.start,
                children: [
                  Text(
                    "Bharatiya Vidya Bhavans",
                    style: TextStyle(color: Colors.white,
fontSize: 12, fontWeight: FontWeight.w300),
                  ),
                  Text(
                    "Sardar Patel Institute of
Technology",
                    style: TextStyle(color: Colors.white,
fontSize: 12, fontWeight: FontWeight.bold),
                  ),
                  Text(
                    "Autonomous Institute Affiliated to
Mumbai University",
                    style: TextStyle(color: Colors.white,
fontSize: 10, fontWeight: FontWeight.w300),
                  ),
                ],
              ),
            ],
          ),
          leading: Builder(
            builder: (context) => IconButton(
              icon: const Icon(Icons.menu, color:
Colors.white),
              onPressed: () =>
Scaffold.of(context).openDrawer(),
            ),
          ),
```

```
        ),
        body: _pages[_currentIndex],
        bottomNavigationBar: BottomNavigationBar(
          currentIndex: _currentIndex,
          onTap: (index) {
            setState(() {
              _currentIndex = index;
            });
          },
          type: BottomNavigationBarType.fixed,
          items: const [
            BottomNavigationBarItem(icon:
Icon(Icons.home), label: "Home"),
            BottomNavigationBarItem(icon:
Icon(Icons.info), label: "About"),
            BottomNavigationBarItem(icon:
Icon(Icons.school), label: "Faculty"),
            BottomNavigationBarItem(icon:
Icon(Icons.visibility), label: "Vision & Mission"),
            BottomNavigationBarItem(icon:
Icon(Icons.notifications), label: "Notifications"),
          ],
        ),
      ),
    );
  }
}
// Separate Home Page Content
class HomePageContent extends StatelessWidget {
  final List<String> achievementImages = [
    'assets/images/st1.png',
    'assets/images/st2.jpg',
    'assets/images/st4.0.jpg',
    'assets/images/st4.00.jpg',
    'assets/images/st5.0.jpg',
    'assets/images/st6.0.png',
    'assets/images/st7.0.png',
    'assets/images/st8.png',
  ];

  @override
  Widget build(BuildContext context) {
    return SingleChildScrollView(
```

```
      child: Column(
        children: [
          const SizedBox(height: 20),
          Container(
            width: double.infinity,
            height: 200,
            decoration: BoxDecoration(
              image: DecorationImage(
                image:
AssetImage('assets/images/hero.jpg'),
                fit: BoxFit.cover,
              ),
            ),
          ),
          const SizedBox(height: 20),
          Container(
            width: double.infinity,
            padding: const EdgeInsets.all(10),
            color: Colors.grey[200],
            child: const Text(
              'Student Achievements',
              style: TextStyle(fontSize: 20, fontWeight:
FontWeight.bold),
            ),
          ),
          const SizedBox(height: 20),
          CarouselSlider(
            options: CarouselOptions(
              height: 200,
              autoPlay: true,
              enlargeCenterPage: true,
              aspectRatio: 16 / 9,
              viewportFraction: 0.8,
            ),
            items: achievementImages.map((imagePath) {
              return ClipRRect(
                borderRadius: BorderRadius.circular(10),
                child: Image.asset(
                  imagePath,
                  fit: BoxFit.cover,
                  width: double.infinity,
                  errorBuilder: (context, error,
stackTrace) => const Icon(Icons.broken_image),
```

```
                ),
              );
            }).toList(),
          ),
          const SizedBox(height: 20),
          Container(
            width: double.infinity,
            padding: const EdgeInsets.all(10),
            color: Colors.grey[200],
            child: const Text(
              'Vision & Mission',
              style: TextStyle(fontSize: 20, fontWeight:
FontWeight.bold),
            ),
          ),
          const SizedBox(height: 20),
          const VisionMissionCard(),
        ],
      ),
    );
  }
}

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

  @override
  _VisionMissionCardState createState() =>
_VisionMissionCardState();
}

class _VisionMissionCardState extends
State<VisionMissionCard> {
  bool _isVisionExpanded = false;
  bool _isMissionExpanded = false;

  @override
  Widget build(BuildContext context) {
    return Container(
      margin: const EdgeInsets.symmetric(horizontal: 16),
      padding: const EdgeInsets.all(16),
      decoration: BoxDecoration(
        color: Colors.orange.shade50,
```

```
        borderRadius: BorderRadius.circular(12),
        boxShadow: const [
          BoxShadow(
              color: Colors.black12,
              blurRadius: 6,
              spreadRadius: 2,
              offset: Offset(0, 4))
        ],
      ),
      child: Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: [
          _buildExpandableSection(
            title: "Vision",
            content: "To develop globally competent and
ethical professionals...",
            isExpanded: _isVisionExpanded,
            onTap: () => setState(() => _isVisionExpanded
= !_isVisionExpanded),
          ),
          const SizedBox(height: 10),
          _buildExpandableSection(
            title: "Mission",
            content: "We strive to create an environment
for growth...",
            isExpanded: _isMissionExpanded,
            onTap: () => setState(() =>
_isMissionExpanded = !_isMissionExpanded),
          ),
        ],
      ),
    );
  }

  Widget _buildExpandableSection({
    required String title,
    required String content,
    required bool isExpanded,
    required VoidCallback onTap,
  }) {
    return Column(
      crossAxisAlignment: CrossAxisAlignment.start,
      children: [
```

```
        GestureDetector(
          onTap: onTap,
          child: Row(
            mainAxisAlignment:
MainAxisAlignment.spaceBetween,
            children: [
              Text(
                title,
                style: TextStyle(fontSize: 20,
fontWeight: FontWeight.bold, color:
Colors.orange.shade800),
              ),
              Icon(isExpanded ? Icons.expand_less :
Icons.expand_more, color: Colors.orange.shade800),
            ],
          ),
        ),
        if (isExpanded)
          Padding(
            padding: const EdgeInsets.only(top: 8.0),
            child: Text(content, style: const
TextStyle(fontSize: 16, color: Colors.black87)),
          ),
      ],
    );
  }
}
```

notification.dart :

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

class NotificationsPage extends StatelessWidget {
  final Map<String, List<String>> notifications = {
    'University Notices': [
      'New academic calendar released for 2025.',
      'University closed on March 15 for maintenance.',
    ],
    'Exam Notices': [
      'MCA Semester 2 exams start from April 10.',
      'Last date to fill exam form: March 25.',
    ],
    'Upcoming Events': [
```

```
      'Tech Fest 2025: April 5-7.',
      'Guest lecture on AI: March 20 at 10 AM.',
    ],
  };

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('Notifications', style:
TextStyle(color: Colors.white)),
        backgroundColor: Colors.black,
        iconTheme: IconThemeData(color: Colors.white), //
Set back arrow to white
      ),
      body: Padding(
        padding: EdgeInsets.all(16.0),
        child: Column(
          crossAxisAlignment: CrossAxisAlignment.start,
          children: notifications.entries.map((entry) {
            return Column(
              crossAxisAlignment:
CrossAxisAlignment.start,
              children: [
                _buildSection(entry.key, entry.value,
context),
                SizedBox(height: 20),
              ],
            );
          }).toList(),
        ),
      ),
    );
  }

  Widget _buildSection(String title, List<String>
notices, BuildContext context) {
    return Card(
      elevation: 3,
      shape: RoundedRectangleBorder(borderRadius:
BorderRadius.circular(10)),
      color: Colors.white,
      child: Padding(
```

```
        padding: EdgeInsets.all(12.0),
        child: Column(
          crossAxisAlignment: CrossAxisAlignment.start,
          children: [
            Text(
              title,
              style: TextStyle(
                fontSize: 18,
                fontWeight: FontWeight.bold,
                color: Colors.orange,
              ),
            ),
            SizedBox(height: 8),
            Column(
              children: notices
                  .map((notice) => InkWell(
                        onTap: () {
                          Navigator.push(
                            context,
                            MaterialPageRoute(
                              builder: (context) =>
NotificationDetailPage(detail: notice),
                            ),
                          );
                        },
                        child: Padding(
                          padding:
EdgeInsets.symmetric(vertical: 6.0),
                          child: Row(
                            crossAxisAlignment:
CrossAxisAlignment.start,
                            children: [
                              Icon(Icons.notifications,
color: Colors.black, size: 18),
                              SizedBox(width: 8),
                              Expanded(
                                child: Text(
                                  notice,
                                  style:
TextStyle(fontSize: 14),
                                ),
                              ),
```

```
Icon(Icons.arrow_forward_ios, size: 14, color:
Colors.black54),
                                ],
                              ),
                            ),
                          ))
                      .toList(),
                ),
              ],
            ),
          ),
        );
      }
    }

    class NotificationDetailPage extends StatelessWidget {
      final String detail;

      NotificationDetailPage({required this.detail});

      @override
      Widget build(BuildContext context) {
        return Scaffold(
          appBar: AppBar(
            title: Text("Notification Detail", style:
    TextStyle(color: Colors.white)),
            backgroundColor: Colors.black,
            iconTheme: IconThemeData(color: Colors.white), //
    Set back arrow to white
          ),
          body: Padding(
            padding: EdgeInsets.all(16.0),
            child: Center(
              child: Text(
                detail,
                style: TextStyle(fontSize: 18, fontWeight:
    FontWeight.bold),
                textAlign: TextAlign.center,
              ),
            ),
          ),
        );
      }
```

```
}

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

side_nav.dart :

```
import 'package:flutter/material.dart';
// import 'package:flutter_clg/home.dart';
import 'package:flutter_clg/visson.dart';
import 'package:flutter_clg/webview_screen.dart';
import 'about.dart';
import 'feedback.dart'; // Ensure this is the correct
path to your FeedbackForm file
import 'notification.dart';
import 'faculty.dart';

class SideNav extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Drawer(
      child: ListView(
        padding: EdgeInsets.zero,
        children: [
          DrawerHeader(
            decoration: const BoxDecoration(
              color: Colors.black,
            ),
            child: Column(
              crossAxisAlignment:
CrossAxisAlignment.start,
              children: [
                Row(
                  children: [
                    Image.asset(
                      'assets/images/logo3.0.png', //
Change this to the correct logo path
                      height: 40,
                      errorBuilder: (context, error,
```

```
stackTrace) => const Icon(Icons.image, color:
Colors.white),
                    ),
                    const SizedBox(width: 10),
                    const Text(
                      "Menu",
                      style: TextStyle(
                        color: Colors.white,
                        fontSize: 20,
                        fontWeight: FontWeight.bold,
                      ),
                    ),
                  ],
                ),
              ],
            ),
          ),
          _drawerItem("About", Icons.info, context,
destination: AboutPage()),
          _drawerItem("Our Faculty", Icons.people,
context, destination: FacultyPage()),
          _drawerItem("Placement", Icons.work, context),
          _drawerItem("Feedback Form", Icons.feedback,
context, destination: FeedbackForm()),
          _drawerItem("Notification",
Icons.notifications, context, destination:
NotificationsPage()),
          _drawerItem("Vission & Mission",
Icons.notifications, context, destination:
VisionMissionPage()),
          _drawerItem("Web View", Icons.link, context,
destination: WebViewScreen()),
        ],
      ),
    );
  }

  // Helper function for drawer items
  Widget _drawerItem(String title, IconData icon,
BuildContext context, {Widget? destination}) {
    return ListTile(
      leading: Icon(icon, color: Colors.black),
      title: Text(title, style: const TextStyle(fontSize:
```

```
16)),
      onTap: () {
        Navigator.pop(context); // Close the drawer
        if (destination != null) {
          Navigator.push(
            context,
            MaterialPageRoute(builder: (context) =>
destination),
          );
        }
      },
    );
  }
}
```

vision.dart :

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

class VisionMissionPage extends StatelessWidget {
  const VisionMissionPage({Key? key}) : super(key: key);

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.transparent,
      body: Container(
        child: SingleChildScrollView(
          padding: const EdgeInsets.all(16.0),
          child: Column(
            children: [
              // Page Heading
              Text(
                "Department Vision & Mission",
                textAlign: TextAlign.center,
                style: TextStyle(
                  fontSize: 20,
                  color: Colors.orange,
                  fontWeight: FontWeight.bold,
                ),
              ),
              const SizedBox(height: 16),
```

```
              // Expandable Cards for Vision and Mission
              _buildExpandableSectionCard(
                title: "DEPARTMENT VISION (Effective from
2024-25)",
                content:
                "To develop globally competent and
ethical professionals in Computer Science and Engineering
and enable them to contribute to society.",
              ),
              _buildExpandableSectionCard(
                title: "DEPARTMENT VISION",
                content:
                "To create a center of excellence which
will produce cutting edge technologies to cater needs of
Business and Society.",
              ),
              _buildExpandableSectionCard(
                title: "DEPARTMENT MISSION (Effective
from 2024-25)",
                content:
                "M1: To provide rigorous, high-standard,
multidisciplinary curriculum and innovative T-L-E-A
processes and ensure a stimulating academic
environment.\n\n"
                    "M2: To promote research and
innovations through collaborations.\n\n"
                    "M3: To develop requisite attitudes
and skills, besides providing a strong knowledge
foundation.\n\n"
                    "M4: To foster ethics and social
responsibility among stakeholders and imbibe a sense of
contribution.",
              ),
              _buildExpandableSectionCard(
                title: "DEPARTMENT MISSION",
                content:
                "1. To provide high quality
education.\n\n"
                    "2. To train the students to excel in
cutting edge technologies that makes them industry
ready.\n\n"
                    "3. To inculcate ethical and
professional values in students for betterment of
```

```
society.\n\n"
                    "4. To inculcate Entrepreneurial
mindset in students to make them job creators.",
                ),
              ],
            ),
          ),
        ),
      );
  }
  Widget _buildExpandableSectionCard({
    required String title,
    required String content,
  }) {
    return Card(
      margin: const EdgeInsets.only(bottom: 16),
      elevation: 3,
      shape: RoundedRectangleBorder(borderRadius:
BorderRadius.circular(12)),
      child: ExpansionTile(
        title: Text(
          title,
          style: const TextStyle(
            fontSize: 14,
            fontWeight: FontWeight.bold,
            color: Color.fromARGB(255, 4, 14, 74),
          ),
        ),
        children: [
          Padding(
            padding: const EdgeInsets.all(16.0),
            child: Text(
              content,
              style: const TextStyle(fontSize: 13,
height: 1.4),
              textAlign: TextAlign.left,
            ),
          ),
        ],
      ),
    );
  }
}
```

web_view_screen.dart :

```
import 'package:flutter/material.dart';
import 'package:webview_flutter/webview_flutter.dart';
class WebViewScreen extends StatefulWidget {
  const WebViewScreen({Key? key}) : super(key: key);
  @override
  _WebViewScreenState createState() =>
_WebViewScreenState();
}
class _WebViewScreenState extends State<WebViewScreen> {
  late final WebViewController _controller;
  @override
  void initState() {
    super.initState();
    _controller = WebViewController()
      ..setJavaScriptMode(JavaScriptMode.unrestricted)
..loadRequest(Uri.parse('https://mca.spit.ac.in/'));
  }
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(title: const Text("Web Page")),
      body: WebViewWidget(controller: _controller),
    );
  }
}
```

splash_screen.dart :

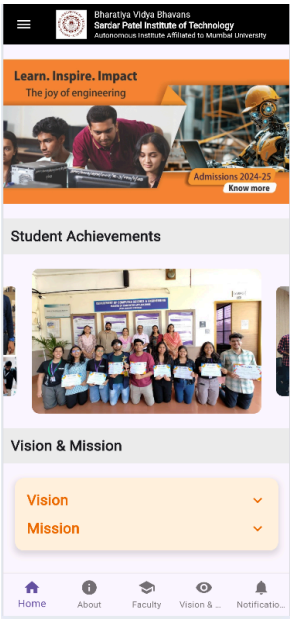
```
import 'package:flutter/material.dart'
import 'home.dart'; // Import HomePage
class SplashScreen extends StatefulWidget {
  @override
  _SplashScreenState createState() =>
_SplashScreenState();
}
class _SplashScreenState extends State<SplashScreen> with
SingleTickerProviderStateMixin {
  late AnimationController _animationController;
  late Animation<double> _animation;
  @override
  void initState() {
    super.initState();
```

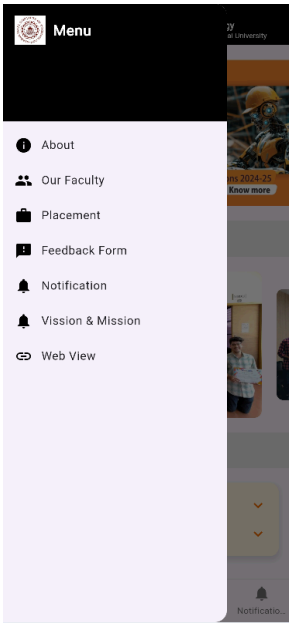
```
    _animationController = AnimationController(
      vsync: this,
      duration: Duration(seconds: 4),
    );
    _animation = Tween<double>(begin: 1.0, end:
4.0).animate(
      CurvedAnimation(
        parent: _animationController,
        curve: Curves.easeInOut, // Smooth transition
      ),
    );
    _animationController.forward();
    Future.delayed(Duration(seconds: 4), () {
      Navigator.pushReplacement(
        context,
        MaterialPageRoute(builder: (context) =>
HomePage()), // Navigate to HomePage
      );
    });
  }
  @override
  void dispose() {
    _animationController.dispose();
    super.dispose();
  }
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.white, // Background color
      body: Center(
        child: AnimatedBuilder(
          animation: _animation,
          builder: (context, child) {
            return Transform.scale(
              scale: _animation.value,
              child:
Image.asset('assets/images/logo3.0.png', width: 150,
height: 150), // Your logo
            );},
        ),),
    );}}
```

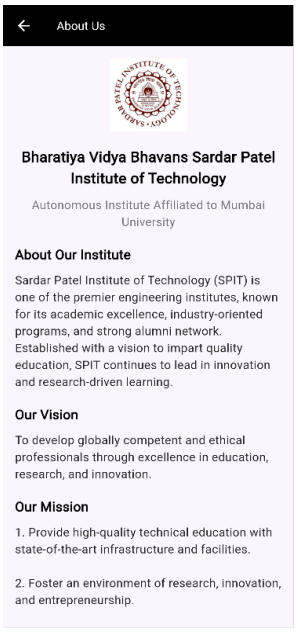
pubspec.yaml :

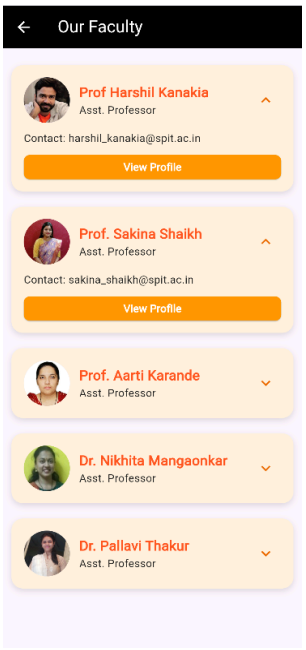
```yaml
name: flutter_clg
description: "A new Flutter project."
publish_to: 'none'
version: 0.1.0
environment:
  sdk: ^3.6.1
dependencies:
  flutter:
    sdk: flutter
  carousel_slider: ^5.0.0
  webview_flutter: ^4.10.0
  flutter_rating_bar: ^4.0.1
  url_launcher: ^6.1.12
dev_dependencies:
  flutter_test:
    sdk: flutter
  flutter_lints: ^5.0.0
flutter:
  uses-material-design: true
  assets:
    - assets/images/
```

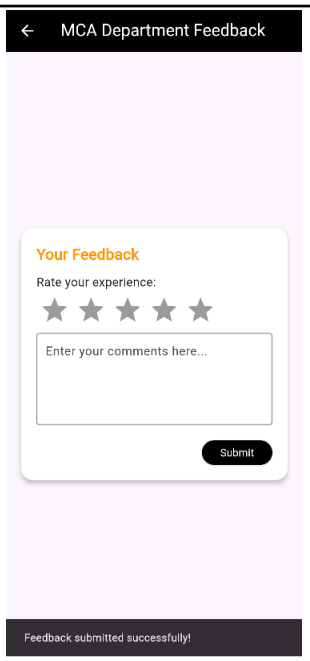
Screenshots

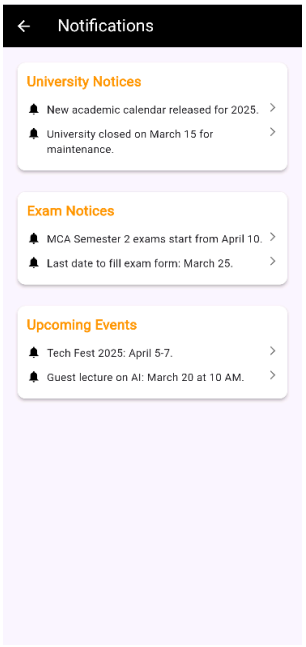


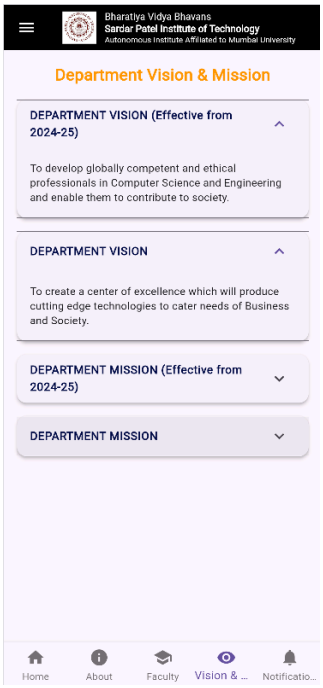


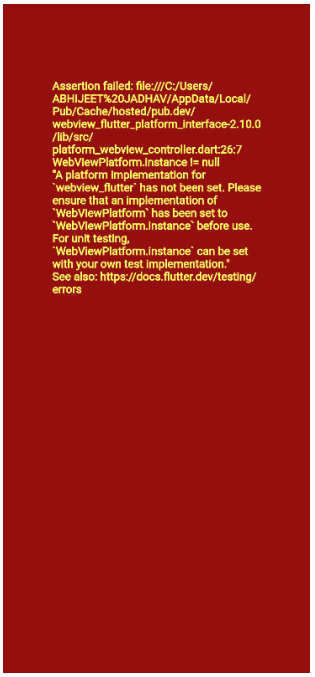












Question and Answers

Answer the following Questions:

1. How to create SideDrawer and Tabs Navigation both?
Ans : Use Flutter's Scaffold widget with the Drawer property for a side drawer and integrate TabBar with TabBarView for tab-based navigation.

2. How did you use the 60-30-10 rule in your application?
Ans : This rule guided the UI design by allocating 60% for primary content, 30% for secondary elements, and 10% for accent details, ensuring a balanced layout.

3. Which new elements did you use for creating UI components?

	Ans : Incorporated modern Material design widgets like Card, ListTile, and custom animations along with responsive layouts to enhance the UI experience. 4. In pubspec.yaml file, what dependencies need to be there? Ans : Include essential dependencies such as flutter, cupertino_icons, and packages like http, provider, flutter_svg, and webview_flutter based on project needs. 5. How to create an Expandable view? Ans : Implement an expandable view using widgets like ExpansionTile or ExpansionPanelList to allow smooth expansion and collapse of content. 6. How to create Webview? Ans : Utilize the webview_flutter package by adding it to pubspec.yaml, then embedding the WebView widget in your widget tree to load web content
Conclusion	The approach integrates robust navigation using both side drawer and tabs, applies the 60-30-10 rule for a balanced UI design, and leverages modern UI components alongside essential dependencies. The inclusion of expandable views and WebView functionality further enhances the user experience, resulting in a cohesive and feature-rich Flutter application.