

EXPERIMENT NO: - 03

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AIM: - To include icons, images, fonts in Flutter app.

Theory: -

Flutter is a versatile open-source UI framework , which allows developers to build natively compiled applications for mobile, web, and desktop platforms from a single codebase. One of the key strengths of Flutter is its flexibility in creating highly customizable UIs. This practical focuses on incorporating essential visual elements—icons, images, and custom fonts—into a Flutter application. These elements enhance the visual appeal and usability of the app, providing an engaging experience for users.

A flutter app when built has both assets (resources) and code. Assets are available and deployed during runtime. The asset is a file that can include static data, configuration files, icons, and images. The Flutter app supports many image formats, such as JPEG, WebP, PNG, GIF, animated WebP/GIF, BMP, and WBMP.

Visual elements play a significant role in app development.

- **Enhanced User Experience:** Images and icons make your app visually appealing and user- friendly.
- **Information Conveyance:** They convey information quickly and intuitively. A well-chosen icon can replace lengthy text.
- **Branding:** Custom icons and images reinforce your app's branding, making it memorable.

□ **Adding Icons in Flutter**

Flutter provides built-in material design icons through the Icons class. Custom icons can also be added using third-party packages such as flutter_launcher_icons and font_awesome_flutter.

```
Icon(  
  Icons.home,  
  size: 40,  
);
```

□ Adding Images in Flutter

Flutter supports images from three sources:

1. **Assets** (Stored locally in the project)

- Place the image inside the assets/images folder in the project.
- Declare the image in pubspec.yaml

```
flutter:  
  assets:  
    - assets/images/sample.png
```

- Display the image in the app

```
Image.asset('assets/images/sample.png');
```

2. **Network** (Fetched from the internet)

Displaying images from the internet or network is very simple. Flutter provides a built-in method `Image.network` to work with images from a URL. The `Image.network` method also allows you to use some optional properties, such as height, width, color, fit, and many more.

```
Image.network('https://example.com/sample.jpg');
```

3. **Memory or File** (Stored on the device)

□ Adding Custom Fonts in Flutter

By default, Flutter uses the Roboto font, but custom fonts can be added for a unique UI.

- Download the font and place it in the assets/fonts/ folder.
- Declare the font in pubspec.yaml
- Use the font in the app `Text`(
 'Custom Font Example',
 style: TextStyle(fontFamily: 'CustomFont', fontSize: 24),
);

Code: -

profile customization screen.dart:-

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

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

  @override
  State<ProfileCustomizationScreen> createState() =>
_ProfileCustomizationScreenState();
}

class _ProfileCustomizationScreenState extends
State<ProfileCustomizationScreen> {
  File? _imageFile;
  final _nameController = TextEditingController();
  final _bioController = TextEditingController();
  String _selectedTheme = 'Light';
  String _selectedStatus = 'Available';

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: const Text('Edit Profile'),
        actions: [
          IconButton(
            icon: const Icon(Icons.check),
            onPressed: _saveProfile,
          ),
        ],
      ),
      body: SingleChildScrollView(
        padding: const EdgeInsets.all(16),
        child: Column(
          children: [
            // Profile Picture Section
            Center(
              child: Stack(
                children: [
                  CircleAvatar(
                    radius: 60,
                    backgroundColor:
Theme.of(context).colorScheme.primary.withAlpha(30
),
                    backgroundImage: _imageFile != null
? FileImage(_imageFile!)
: null,
                  child: _imageFile == null
? const Icon(Icons.person, size: 60)
: null,
                ],
              ),
            ),
          ],
        ),
      ),
    );
```

```
),
    Positioned(
      bottom: 0,
      right: 0,
      child: CircleAvatar(
        backgroundColor:
Theme.of(context).colorScheme.primary,
        radius: 20,
        child: IconButton(
          icon: const Icon(Icons.camera_alt),
          color: Colors.white,
          onPressed: _showImagePickerOptions,
        ),
      ),
    ),
  ],
),
),
const SizedBox(height: 24),

// Name Field
TextField(
  controller: _nameController,
  decoration: InputDecoration(
    labelText: 'Name',
    prefixIcon: const Icon(Icons.person_outline),
    border: OutlineInputBorder(
      borderRadius: BorderRadius.circular(12),
    ),
  ),
),
const SizedBox(height: 16),

// Bio Field
TextField(
  controller: _bioController,
  maxLines: 3,
  decoration: InputDecoration(
    labelText: 'Bio',
    prefixIcon: const Icon(Icons.edit_note),
    border: OutlineInputBorder(
      borderRadius: BorderRadius.circular(12),
    ),
  ),
),
const SizedBox(height: 24),

// Theme Selection
ListTile(
  leading: const Icon(Icons.palette_outlined),
  title: const Text('Theme'),
  subtitle: Text(_selectedTheme),
  trailing: const Icon(Icons.arrow_forward_ios),
  size: 16),
  onTap: _showThemeOptions,
),
```

```

const Divider(),

// Status Selection
ListTile(
  leading: const Icon(Icons.mood),
  title: const Text('Status'),
  subtitle: Text(_selectedStatus),
  trailing: const Icon(Icons.arrow_forward_ios,
size: 16),
  onTap: _showStatusOptions,
),
const Divider(),

// Additional Options
ListTile(
  leading: const
Icon(Icons.notifications_outlined),
  title: const Text('Notifications'),
  trailing: Switch(
    value: true,
    onChanged: (value) {},
  ),
),
const Divider(),

ListTile(
  leading: const Icon(Icons.lock_outline),
  title: const Text('Privacy'),
  trailing: const Icon(Icons.arrow_forward_ios,
size: 16),
  onTap: () {},
),
],
),
);
}

```

```

void _showImagePickerOptions() {
  showModalBottomSheet(
    context: context,
    builder: (context) => Container(
      padding: const EdgeInsets.all(20),
      height: 180,
      child: Column(
        children: [
          ListTile(
            leading: const Icon(Icons.camera),
            title: const Text('Take a photo'),
            onTap: () {
              Navigator.pop(context);
              _pickImage(ImageSource.camera);
            },
          ),
          ListTile(
            leading: const Icon(Icons.photo_library),

```

```

title: const Text('Choose from gallery'),
onTap: () {
  Navigator.pop(context);
  _pickImage(ImageSource.gallery);
},
),
],
),
);
}

Future<void> _pickImage(ImageSource source) async
{
  final picker = ImagePicker();
  final pickedFile = await picker.pickImage(source:
source);

  if (pickedFile != null) {
    setState(() {
      _imageFile = File(pickedFile.path);
    });
  }
}

void _showThemeOptions() {
  showModalBottomSheet(
    context: context,
    builder: (context) => Container(
      padding: const EdgeInsets.all(20),
      child: Column(
        mainAxisAlignment: MainAxisAlignment.min,
        children: [
          ListTile(
            title: const Text('Light'),
            leading: Radio(
              value: 'Light',
              groupValue: _selectedTheme,
              onChanged: (value) {
                setState(() {
                  _selectedTheme = value.toString();
                  Navigator.pop(context);
                });
              },
            ),
          ),
          ListTile(
            title: const Text('Dark'),
            leading: Radio(
              value: 'Dark',
              groupValue: _selectedTheme,
              onChanged: (value) {
                setState(() {
                  _selectedTheme = value.toString();
                  Navigator.pop(context);
                });
              },
            ),

```

```

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

void _showStatusOptions() {
  showModalBottomSheet(
    context: context,
    builder: (context) => Container(
      padding: const EdgeInsets.all(20),
      child: Column(
        mainAxisAlignment: MainAxisAlignment.min,
        children: [
          ListTile(
            title: const Text('Available'),
            leading: Radio(
              value: 'Available',
              groupValue: _selectedStatus,
              onChanged: (value) {
                setState(() {
                  _selectedStatus = value.toString();
                  Navigator.pop(context);
                });
              },
            ),
          ),
          ListTile(
            title: const Text('Busy'),
            leading: Radio(
              value: 'Busy',
              groupValue: _selectedStatus,
              onChanged: (value) {
                setState(() {
                  _selectedStatus = value.toString();
                  Navigator.pop(context);
                });
              },
            ),
          ),
          ListTile(
            title: const Text('Away'),
            leading: Radio(

```

```

              value: 'Away',
              groupValue: _selectedStatus,
              onChanged: (value) {
                setState(() {
                  _selectedStatus = value.toString();
                  Navigator.pop(context);
                });
              },
            ),
          ),
        ],
      ),
    );
  }

  void _saveProfile() {
    // Save profile data
    Navigator.pop(context);
  }

  @override
  void dispose() {
    _nameController.dispose();
    _bioController.dispose();
    super.dispose();
  }
}

```

pubspec.yaml

- name: chatapp
- description: A new Flutter project.
-
- # Specify SDK version
- environment:
 - sdk: '>=3.0.0 <4.0.0'
 - flutter: ">=3.0.0"
-
- dependencies:
 - flutter:
 - sdk: flutter
 - image_picker: ^1.0.7
 - cupertino_icons: ^1.0.2
-
- dev_dependencies:
 - flutter_test:
 - sdk: flutter
 - flutter_lints: ^2.0.0
-
- flutter:
 - uses-material-design: true

OUTPUT: -



