EXP 3

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

THEORY:
Including icons, images, and custom fonts in a Flutter app is a common requirement to enhance the visual appeal and functionality of the application. Let's discuss each of these elements:

1. Icons:

Icons in Flutter are typically represented by the Icon widget. Flutter provides a set of built-in icons through the Icons class, but you can also use custom icons or those from external icon packs.

How to Include Icons:
Built-in Icons:
Icon(Icons.star);

Custom Icons:
Flutter allows you to use custom icons in various formats, such as SVG or PNG. You can use the Image.asset or Image.network widget to display custom icons.

2. Images:

Displaying images is a crucial part of app development. Flutter supports various image formats, including PNG, JPEG, GIF, and WebP.

How to Include Images:
Asset Images:
- Place your images in the assets folder of your project, and then use the Image.asset widget to display them.

Image.asset('assets/images/my_image.png');

3. Fonts:

Custom fonts allow you to create a unique typographic style for your app. Flutter supports TrueType (TTF) and OpenType (OTF) fonts.

How to Include Fonts:
Adding Fonts to pubspec.yaml:
Add your font files to the fonts section of the pubspec.yaml file.

```
flutter:
  fonts:
    - family: MyCustomFont
      fonts:
        - asset: assets/fonts/my_custom_font.ttf
```

Using Custom Fonts:
Apply custom fonts using the Text widget.

```
Text(
 'Hello, World!',
 style: TextStyle(
   fontFamily: 'MyCustomFont',
   fontSize: 20,
 ),
);
```

CODE:

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

class ChatPage extends StatefulWidget {
  const ChatPage({Key? key}) : super(key: key);

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

class _ChatPageState extends State<ChatPage> {
  final TextEditingController _messageController = TextEditingController();

  @override
  Widget build(BuildContext context) {
   return Scaffold(
     backgroundColor: Colors.black,
     appBar: AppBar(
      backgroundColor: Colors.black,
      title: Row(
        children: [
          const Text('Discord'),
          const SizedBox(width: 8.0),
          const Icon(Icons.arrow_drop_down),
        ],
      ),
      actions: [
        IconButton(
```

```dart
                onPressed: () {},
                icon: const Icon(Icons.search),
              ),
            IconButton(
                onPressed: () {},
                icon: const Icon(Icons.add),
              ),
            IconButton(
                onPressed: () {},
                icon: const Icon(Icons.settings),
              ),
          ],
        ),
      body: Column(
        children: [
          // Chat Messages
          Expanded(
            child: ListView.builder(
              reverse: true,
              itemCount: 20,
              itemBuilder: (context, index) {
                return ChatMessage(
                  isCurrentUser: index % 2 == 0,
                  username: 'Username $index',
                  message: 'Message $index',
                  index: index,
                );
              },
            ),
          ),

          // Chat Input Field
          Container(
            padding: const EdgeInsets.symmetric(horizontal: 8.0),
            color: Colors.black,
            child: Row(
              children: [
                IconButton(
                  onPressed: () {
                    // Action for the plus icon
```

```dart
      },
      icon: const Icon(Icons.add, color: Colors.white),
    ),
    IconButton(
      onPressed: () {
        // Action for the gift icon
      },
      icon: const Icon(Icons.card_giftcard, color: Colors.white),
    ),
    Expanded(
      child: TextField(
        controller: _messageController,
        style: TextStyle(color: Colors.white), // Text color
        decoration: InputDecoration(
          hintText: 'Type your message...',
          hintStyle:
              TextStyle(color: Colors.white54), // Hint text color
          fillColor: Colors.grey[850],
          filled: true,
          border: OutlineInputBorder(
            borderRadius: BorderRadius.circular(20.0),
            borderSide: BorderSide.none,
          ),
        ),
      ),
    ),
    IconButton(
      onPressed: () {
        // Action for the emoji icon
      },
      icon: const Icon(Icons.emoji_emotions_outlined,
          color: Colors.white),
    ),
    IconButton(
      onPressed: () {
        // Action for the mic icon
      },
      icon: const Icon(Icons.mic_none, color: Colors.white),
    ),
  ],
```

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

class ChatMessage extends StatelessWidget {
  final bool isCurrentUser;
  final String username;
  final String message;
  final int index;

  const ChatMessage({
    Key? key,
    required this.isCurrentUser,
    required this.username,
    required this.message,
    required this.index,
  }) : super(key: key);

  Color getUsernameColor(int index) {
    // You can customize this logic to generate different colors based on the index
    return index % 2 == 0 ? Colors.blue : Colors.green;
  }

  @override
  Widget build(BuildContext context) {
    return Container(
      margin: const EdgeInsets.symmetric(vertical: 8.0, horizontal: 16.0),
      child: Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: [
          Row(
            children: [
              Container(
                width: 32.0, // Overall size of the container
                height: 32.0,
                decoration: BoxDecoration(
```

```dart
              color: getUsernameColor(index), // Background color
              shape: BoxShape.circle,
            ),
            child: Center(
              child: Image.asset(
                'assets/images/discord_logo1.png', // Make sure you have this asset in your project
                width: 25.0, // Size of the logo
                height: 25.0,
                color: Colors.white,
              ),
            ),
          ),
          const SizedBox(width: 8.0),
          Text(
            username,
            style: TextStyle(
              color: isCurrentUser ? Colors.blue : getUsernameColor(index),
            ),
          ),
        ),
      ],
    ),
    const SizedBox(height: 4.0),
    Text(
      message,
      style: TextStyle(
        color: isCurrentUser ? Colors.white : Colors.grey,
      ),
    ),
  ],
  ),
  );
 }
}
```

//pubspec.yaml
```yaml
name: discord
description: A new Flutter project.
version: 1.0.0+1
environment:
  sdk: ">=3.0.0 <4.0.0"
dependencies:
```
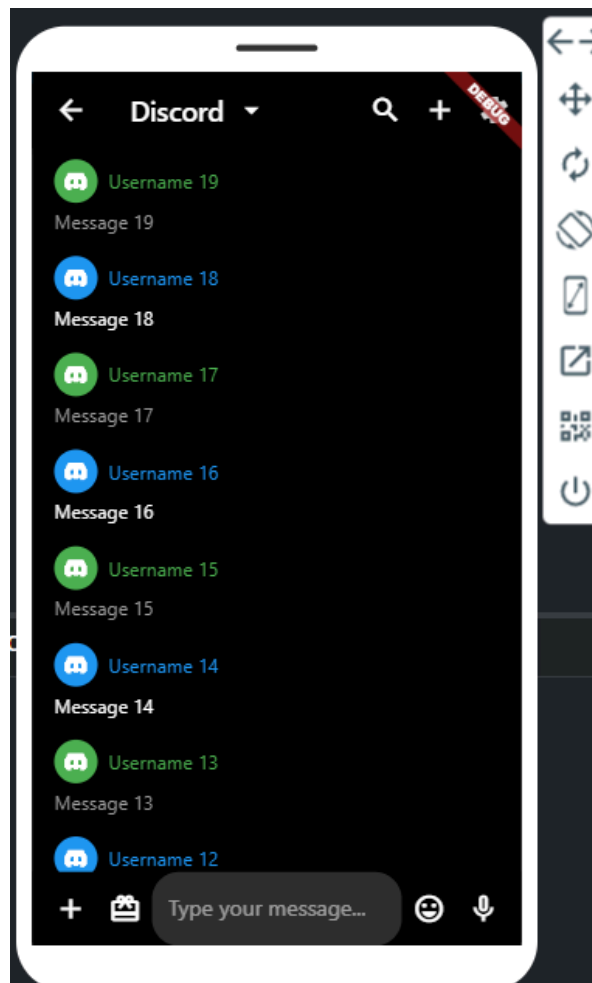
```
  flutter:
    sdk: flutter

dev_dependencies:
  flutter_test:
    sdk: flutter
  flutter_lints: ^2.0.2

flutter:
  uses-material-design: true
  assets:
    - assets/images/discord_logo1.png
    - assets/images/banner1.jpg
    - assets/images/profile_image1.jpg
    - assets/images/profile_image.jpg
```

OUTPUT

CONCLUSION:

In conclusion, enhancing the visual appeal and functionality of a Flutter app involves incorporating icons, images, and custom fonts.

1. Icons: Utilize the Icon widget for built-in icons and explore custom icons using various formats.
2. Images: Display images with the Image.asset widget for local assets or Image.network for network images.
3. Fonts: Include custom fonts in the pubspec.yaml file and apply them using the TextStyle property in the Text widget.