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## Experiment 3

**AIM:** To include icons, images, and fonts in a Flutter app.

### **THEORY:**

#### **1. Icons:**

Icons play a crucial role in conveying information and improving the user interface. Flutter provides the Icon widget to display various icons from different icon libraries. Commonly used icon libraries include MaterialIcons, FontAwesome, and CupertinoIcons.

To include icons:

Import the necessary icon library in your Dart file:

dart

Copy code

```
import 'package:flutter/material.dart'; // Example for Material Icons
```

Use the Icon widget to display an icon:

dart

Copy code

```
Icon(Icons.favorite);
```

#### **2. Images:**

Images are essential for creating visually appealing interfaces. Flutter supports various image formats, such as JPEG, PNG, and GIF.

To include images:

Place your image assets in the assets directory of your Flutter project.

Update your pubspec.yaml file to include the assets:

yaml

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flutter:

assets:

- assets/my\_image.jpg

Use the Image widget to display an image:

dart

Copy code

```
Image.asset('assets/my_image.jpg');
```

### 3. Fonts:

Custom fonts can give your app a unique and distinctive look.

To include custom fonts:

Place your font files (e.g., TTF or OTF) in the fonts directory of your Flutter project.

Update your pubspec.yaml file to include the fonts:

yaml

Copy code

flutter:

fonts:

- family: MyCustomFont

fonts:

- asset: fonts/my\_custom\_font.ttf

Use the custom font in your text widget:

dart

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Text(

'Hello, Flutter!'

style: TextStyle(

fontFamily: 'MyCustomFont',

),

)

## Code

Main.dart

```
import 'package:flutter/material.dart';
import 'screens/home_screen.dart';
import 'utils/color_themes.dart';
```

```
void main() {
  runApp(const AmazonClone());
}
```

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

```
  @override
```

```
  Widget build(BuildContext context) {
    return MaterialApp(
      title: "Amazon Clone",
      debugShowCheckedModeBanner: false,
      theme: ThemeData.light().copyWith(
        scaffoldBackgroundColor: backgroundColor,
      ),
      home: const HomeScreen();
    }
  }
```

home.dart

```
import 'package:amazon_clone/utils/constants.dart';
import 'package:amazon_clone/widgets/ad_banner_widget.dart';
import 'package:amazon_clone/widgets/categories_horizontal_list_view_bar.dart';
import 'package:flutter/material.dart';
```

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

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

```
class _HomeScreenState extends State<HomeScreen> {  
  ScrollController controller = ScrollController();  
  @override  
  void dispose() {  
    super.dispose();  
    controller.dispose();  
  }  
  @override  
  Widget build(BuildContext context) {  
    return Scaffold(  
      appBar: SearchBarWidget(  
        readOnly: true,  
        hasBackButton: false,  
      ),  
      body: SingleChildScrollView(  
        child: Column(  
          children: [  
            AdBannerWidget(),  
  
            ],  
        ),  
      )  
    );  
  }  
}
```

```
}
```

AdBanner.dart

```
import 'package:amazon_clone/utils/color_themes.dart';
import 'package:amazon_clone/utils/constants.dart';
import 'package:amazon_clone/utils/Utils.dart';
import 'package:flutter/material.dart';
```

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

```
  @override
  State<AdBannerWidget> createState() => _AdBannerWidgetState();
}
```

```
class _AdBannerWidgetState extends State<AdBannerWidget> {
  int currentAd = 0;
  @override
  Widget build(BuildContext context) {
    Size screenSize = Utils().getScreenSize();
    double smallAdDimension = screenSize.width / 5;
    //Image and gradient
    return Column(
      children: [
        Stack(
          children: [
            GestureDetector(
              onHorizontalDragEnd: (_) {
                if (currentAd == largeAds.length - 1) {
                  setState(() {
```

```

        currentAd = 0;
    });
    } else {
        setState(() {
            currentAd++;
        });
    }
},
child: SizedBox(
    width: double.infinity,
    child: Image.network(
        largeAds[currentAd],
    ),
),
),
Positioned(
    bottom: 0,
    child: Container(
        width: screenSize.width,
        height: screenSize.height / 8,
        decoration: BoxDecoration(
            gradient: LinearGradient(
                colors: [
                    backgroundColor,
                    backgroundColor.withOpacity(0.000001)
                ],
                begin: Alignment.bottomCenter,
                end: Alignment.topCenter,
            ),
        ),
    ),
),
],
),
Container(

```

```

height: smallAdDimension,
width: screenSize.width,
color: backgroundColor,
child: Row(
  mainAxisAlignment: MainAxisAlignment.spaceEvenly,
  children: [
    getSmallAdWidget(
      index: 0,
      side: smallAdDimension,
    ),
    getSmallAdWidget(
      index: 1,
      side: smallAdDimension,
    ),
    getSmallAdWidget(
      index: 2,
      side: smallAdDimension,
    ),
    getSmallAdWidget(
      index: 3,
      side: smallAdDimension,
    ),
  ],
),
),
],
);
}

```

```

Widget getSmallAdWidget({required int index, required double side}) {
  return Container(
    height: side,
    width: side,
    decoration: ShapeDecoration(

```

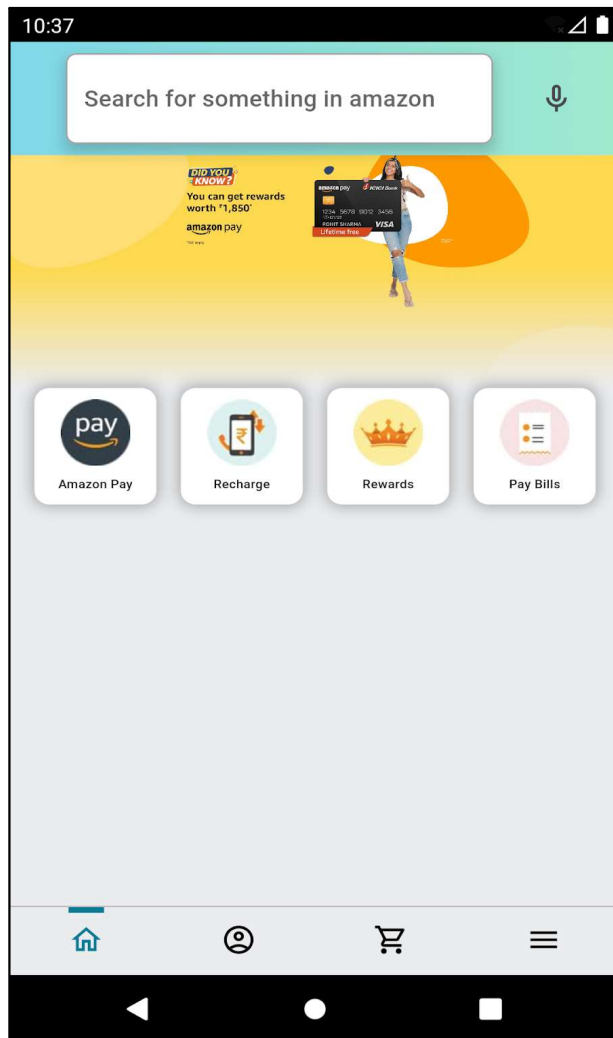
```

    color: Colors.white,
    shadows: [
      BoxShadow(
        color: Colors.black.withOpacity(0.3),
        spreadRadius: 1,
        blurRadius: 8),
    ],
    shape: RoundedRectangleBorder(
      borderRadius: BorderRadius.circular(10),
    ),
  ),
  child: Padding(
    padding: const EdgeInsets.all(8.0),
    child: FittedBox(
      child: Column(
        mainAxisAlignment: MainAxisAlignment.min,
        children: [
          Image.network(
            smallAds[index],
          ),
          Padding(
            padding: const EdgeInsets.only(top: 10),
            child: Text(
              adItemNames[index],
              style: const TextStyle(
                fontSize: 13, fontWeight: FontWeight.w500),
            ),
          )
        ],
      ),
    ),
  ),
));
}
}

```



## Output:



## CONCLUSION:

Understood how to include the icons, images and fonts in flutter UI.