EXPERIMENT NO.3

Experiment No 3 **To include icons, images, and fonts in Flutter app**	
ROLL NO	**36**
NAME	**Anish Nandkumar Mayekar**
CLASS	**D15-B**
SUBJECT	**MAD & PWA Lab**
LO-MAPPED	

Aim: To include icons, images, and fonts in Flutter app.

Theory:

Images in Flutter:

Images in Flutter are represented using the Image widget. They can be displayed from various sources such as assets, networks, memory, or files. Flutter supports popular image formats like PNG, JPEG, GIF, WebP, and BMP. You can customize the display of images using properties like fit, width, height, and more.

Icons in Flutter:

Icons in Flutter are vector graphics used to represent actions, categories, or entities in an app's user interface. Flutter includes a set of built-in Material Design icons and Cupertino icons (for iOS-style design). You can easily incorporate icons into your app using the Icon widget, specifying the desired icon from the available icon sets.

Fonts in Flutter:

Fonts in Flutter allow you to customize the typography and appearance of text in your app. Flutter supports both system fonts and custom fonts. Custom fonts can be declared in the pubspec.yaml file, specifying the font family name and the font files' paths. Once declared, you can use custom fonts by setting the fontFamily property in the TextStyle widget when styling text widgets.

Overall, images, icons, and fonts are fundamental elements in Flutter that contribute to creating visually appealing and engaging user interfaces in Flutter apps. They provide developers with the flexibility to customize the look and feel of their apps and enhance the user experience.

Code:

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

void main() {
  runApp(MyApp());
}

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'VocabularyBuilder',
      theme: ThemeData(
        primarySwatch: Colors.blue,
      ),
      home: MyHomePage(),
    );
  }
}
```

```
class MyHomePage extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('Vocabulary Builder'),
      ),
      body: Center(
        child: Column(
          mainAxisAlignment: MainAxisAlignment.center,
          children: [
            Container(
              child: Image.asset('assets/images/vocab.png'),
              ),
            SizedBox(height: 20),
            // Displaying an icon from the assets folder
            Icon(
              Icons.favorite,
              size: 50,
              color: Colors.lightBlue,
            ),
            SizedBox(height: 20),
            // Using a custom font from the assets folder
            Text(
              'Importance of Vocabulary: Focusing on vocabulary is useful for developing knowledge and skills in multiple aspects of language and literacy. This includes helping with decoding (phonemic awareness and phonics), comprehension, and also fluency',
              style: TextStyle(
                fontFamily: 'ProtestRiot',
                fontSize: 24,
              ),
            ),
          ],
        ),
      ),
    );
  }
}
```

Output:

Conclusion: In conclusion, integrating icons, images, and fonts enhances Flutter apps, using packages like flutter_icons, and flutter_svg. These assets enrich the user experience, adding visual appeal and personality to the UI. With Flutter's asset management, developers can easily customize their app's appearance while maintaining performance. Overall, incorporating icons, images, and fonts elevates the design and usability of Flutter applications.