

## Experiment 03 :

### Aim:- To include icons, images, fonts in Flutter app

**Icons:** Icons are small graphical elements used to represent actions, objects, or ideas visually in user interfaces. They enhance user experience by improving navigation and providing quick recognition. Icons come in various formats, such as SVG, PNG, and font-based icons like FontAwesome. They should be clear, simple, and scalable to maintain readability. Well-designed icons improve accessibility and usability.

**Images:** Images are visual representations used in digital interfaces to enhance content and engage users. They come in different formats like JPEG, PNG, GIF, and WebP, each with unique properties. High-quality images improve aesthetics and communication but should be optimized for faster loading. Responsive design ensures images adjust to different screen sizes. Proper use of alt text improves accessibility and SEO.

**Fonts:** Fonts determine the style of text in digital and print media, affecting readability and aesthetics. They are categorized into serif, sans-serif, monospace, and decorative types. Web fonts like Google Fonts and system fonts ensure consistent typography. Good font choices improve user experience and accessibility. Proper font size and spacing enhance readability across devices.

Code:-

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

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

```
class MyApp extends StatelessWidget {  
  @override  
  Widget build(BuildContext context) {  
    return MaterialApp(  
      debugShowCheckedModeBanner: false,  
      theme: ThemeData(  
        colorScheme: ColorScheme.fromSeed(seedColor: Colors.deepPurple),  
        useMaterial3: true,  
      ),  
    );  
  }  
}
```

```

        primarySwatch: Colors.blue,
      ),
      home: HomePage(),
    );
  }
}

```

```

class HomePage extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.white,
      appBar: AppBar(
        title: Text(
          "Flutter UI Demo",
          style: GoogleFonts.poppins(
            fontSize: 22,
            fontWeight: FontWeight.bold,
          ),
        ),
        centerTitle: true,
      ),
      body: Center(
        child: Padding(
          padding: const EdgeInsets.symmetric(horizontal: 20),
          child: Column(
            mainAxisAlignment: MainAxisAlignment.center,
            crossAxisAlignment: CrossAxisAlignment.center,
            children: [

              ClipRRect(
                borderRadius: BorderRadius.circular(15),
                child: Image.network(
                  'https://images.unsplash.com/photo-1521747116042-5a810fda9664',
                  width: 200,
                  height: 200,
                  fit: BoxFit.cover,
                  loadingBuilder: (context, child, loadingProgress) {
                    if (loadingProgress == null) return child;
                    return Center(child: CircularProgressIndicator());
                  },
                ),
              ],
            ),
          ),
        ),
      ),
    );
  }
}

```

```
    },  
    errorBuilder: (context, error, stackTrace) {  
      return Icon(Icons.broken_image,  
        size: 100, color: Colors.red);  
    },  
  ),  
),  
SizedBox(height: 20),
```

```
Icon(  
  Icons.star_rounded,  
  size: 60,  
  color: Colors.amber,  
),  
SizedBox(height: 20),
```

```
Text(  
  "Merriweather (Serif Font)",  
  style: GoogleFonts.merriweather(  
    fontSize: 18,  
    fontWeight: FontWeight.w600,  
  ),  
  textAlign: TextAlign.center,  
),  
SizedBox(height: 5),
```

```
Text(  
  "Roboto (Sans-serif Font)",  
  style: GoogleFonts.roboto(  
    fontSize: 18,  
  ),  
  textAlign: TextAlign.center,  
),  
SizedBox(height: 5),
```

```
Text(  
  "Source Code Pro (Monospace Font)",  
  style: GoogleFonts.sourceCodePro(  
    
```

```

        fontSize: 18,
        fontWeight: FontWeight.w500,
      ),
      textAlign: TextAlign.center,
    ),
  ],
),
),
),
);
}
}

```

### Github Link:-

<https://github.com/Ishan2611/Flutter-Icons>

### Output:-



The image shows a Flutter UI demo combining an image, icon, and different fonts. At the top is a bold title "Flutter UI Demo," followed by a rounded image of the

Golden Gate Bridge. Below the image is a yellow-outlined icon, likely a gift or placeholder symbol. Three lines of text demonstrate different font styles: Merriweather (serif), Roboto (sans-serif), and Source Code Pro (monospace). This UI highlights how Flutter can display styled text, icons, and images in a clean layout.

### **Conclusion:-**

In conclusion, this experiment helped in understanding how to effectively include icons, images, and custom fonts in a Flutter application. Icons improve navigation and interactivity by visually representing actions or elements. Images enhance the visual appeal and communication of content, provided they are optimized and responsive. Fonts play a key role in the readability and overall aesthetics of the app, contributing to a better user experience. Learning to integrate these assets and manage them through the pubspec.yaml file is crucial for building professional and engaging applications. Overall, this experiment strengthens the foundation for designing visually rich and user-friendly Flutter interfaces.