**Experiment 3**

**Aim:To include icons, images, fonts in Flutter app**
**Theory:**
Flutter widget are of two categories:

Visible (Output and Input)
Invisible (Layout and Control)
Visible widget
The visible widgets are related to the user input and output data. Some of the important types of
this widget are:
1. Text
A Text widget holds some text to display on the screen. We can align the text widget by using
textAlign property, and style property allow the customization of Text that includes font, font
weight, font style, letter spacing, color, and many more. We can use it as like below code
snippets.
new Text(
'Hello, ALL!',
textAlign: TextAlign.center,
style: new TextStyle(fontWeight: FontWeight.bold),
)
2. Button
This widget allows you to perform some action on click. Flutter does not allow you to use the
Button widget directly; instead, it uses a type of buttons like a FlatButton and a RaisedButton.
We can use it as like below code snippets
//FlatButton Example
new FlatButton(
child: Text("Click here"),
onPressed: () {
// Do something here

},
),

//RaisedButton Example
new RaisedButton(
child: Text("Click here"),
elevation: 5.0,
onPressed: () {
// Do something here
},

3. Image
This widget holds the image which can fetch it from multiple sources like from the asset
folder or directly from the URL. It provides many constructors for loading image, which
are given below:

o Image: It is a generic image loader, which is used by ImageProvider.
o asset: It load image from your project asset folder.
o file: It loads images from the system folder.
o memory: It load image from memory.
o network: It loads images from the network.
To add an image in the project, you need first to create an assets folder where you keep
your images and then add the below line in pubspec.yaml file.

assets:
- assets/comp.jpg

**Steps to Add an Image:**
**Step 1.** Create a new folder

- It should be in the root of your flutter project. You can name it whatever you want, but assets are preferred.
- If you want to add other assets to your app, like fonts, it is preferred to make another subfolder named images.

**Step 2.** Now you can copy your image to images sub-folder. The path should look like assets/images/yourImage. Before adding images also check the above-mentioned supported image formats.

**Step 3.** Register the assets folder in pubspec.yaml file and update it.
To add images, write the following code:
```
flutter:
  assets:
      - assets/images/yourFirstImage.jpg
      - assets/image/yourSecondImage.jpg
```

If you want to include all the images of the assets folder then add this:
```
flutter:
  assets:
      - assets/images/
```

**Step 4.** Insert the image code in the file, where you want to add the image.

**Code and output:**
**Mails.dart file:**
```
import 'package:cloud_firestore/cloud_firestore.dart';
import 'package:firebase_auth/firebase_auth.dart';
import 'package:flutter/material.dart';
import 'package:gmail_clone/addmail.dart';
import 'package:gmail_clone/sentmails.dart';
import 'package:gmail_clone/starredmails.dart';
```

```dart
import 'package:gmail_clone/variables.dart';
import 'package:gmail_clone/viewmail.dart';
import 'package:intl/intl.dart';

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

  @override
  State<Mails> createState() => _MailsState();
}

class _MailsState extends State<Mails> {
  String? usermail;
  Stream? mystream;
  int _currentIndex = 0;
  @override
  initState() {
    super.initState();
    getuserdata();
    getstream();
  }

  getstream() {
    setState(() {
      mystream = usercollection.doc(usermail).collection('inbox').snapshots();
    });
  }

  getuserdata() async {
    var firebaseuser = FirebaseAuth.instance.currentUser;
    setState(() {
      usermail = firebaseuser!.email;
    });
  }

  starmessage(String id) async {
    DocumentSnapshot document =
        await usercollection.doc(usermail).collection('inbox').doc(id).get();

    if (document['stared'] == false) {
      usercollection
          .doc(usermail)
          .collection('inbox')
          .doc(id)
          .update({'stared': true});
    } else {
      usercollection
          .doc(usermail)
          .collection('inbox')
```

```dart
        .doc(id)
        .update({'stared': false});
  }
}

searchmail(String str) async {
  setState(() {
    mystream = usercollection
        .doc(usermail)
        .collection('inbox')
        //where-->used for querying
        .where('subject', isGreaterThanOrEqualTo: str)
        .snapshots();
  });
}

@override
Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
      backgroundColor: Colors.white,
      title: Material(
        elevation: 8.0,
        child: TextFormField(
          onFieldSubmitted: (str) => searchmail(str),
          decoration: InputDecoration(
            hintText: 'Search...',
            border: InputBorder.none,
            // icon: Builder(
            //   builder: (context) => IconButton(
            //     // margin: EdgeInsets.only(left: 5),
            //     icon: Icon(Icons.dehaze),
            //     onPressed: () {
            //       Scaffold.of(context).openDrawer();
            //     },
            //   ),
            // ),
            suffixIcon: Container(
              margin: EdgeInsets.all(5),
              child: CircleAvatar(
                backgroundImage: NetworkImage(exampleimage),
              ),
            ),
          ),
        ),
      ),
    ),
    drawer: Drawer(
      child: ListView(
```

```dart
          padding: EdgeInsets.zero,
          children: <Widget>[
            DrawerHeader(
              decoration: BoxDecoration(
                color: Color.fromARGB(255, 255, 255, 255),
                border: Border.all(
                  color: Colors.grey, // Border color
                  width: 1, // Border width
                ),
              ),
              child: Row(
                children: [
                  Image.asset(
                    'assets/com.png', // Replace with the actual path to your Gmail logo image
                    height: 40, // Adjust the height as needed
                    width: 40, // Adjust the width as needed
                  ),
                  SizedBox(width: 10),
                  Text(
                    'Gmail',
                    style: TextStyle(
                      color: Color.fromRGBO(161, 160, 160, 1),
                      fontSize: 24,
                    ),
                  ),
                ],
              ),
            ),

            ListTile(
              leading: Icon(Icons.inbox),
              title: Text('Inbox'),
              onTap: () {
                Navigator.pop(context); // Close the drawer
                // Add your logic to navigate to Inbox screen
              },
            ),
            ListTile(
              leading: Icon(Icons.star),
              title: Text('Starred'),
              onTap: () {
                Navigator.pop(context);
                Navigator.push(
                  context,
                  MaterialPageRoute(
                    builder: (context) => StarredMailsScreen(),
                  ),
                ); // Close the drawer
                // Add your logic to navigate to Starred screen
```

```dart
        },
      ),
      ListTile(
        leading: Icon(Icons.send),
        title: Text('Sent'),
        onTap: () {
          Navigator.pop(context); // Close the drawer
          Navigator.push(
            context,
            MaterialPageRoute(builder: (context) => SentMailsScreen()),
          );
        },
      ),
      ListTile(
        leading: Icon(Icons.drafts),
        title: Text('Drafts'),
        onTap: () {
          Navigator.pop(context); // Close the drawer
          // Add your logic to navigate to Drafts screen
        },
      ),
      ListTile(
        leading: Icon(Icons.access_time),
        title: Text('Scheduled'),
        onTap: () {
          Navigator.pop(context); // Close the drawer
          // Add your logic to navigate to Scheduled screen
        },
      ),
      ListTile(
        leading: Icon(Icons.error),
        title: Text('Spam'),
        onTap: () {
          Navigator.pop(context); // Close the drawer
          // Add your logic to navigate to Spam screen
        },
      ),
      ListTile(
        leading: Icon(Icons.delete),
        title: Text('Bin'),
        onTap: () {
          Navigator.pop(context); // Close the drawer
          // Add your logic to navigate to Bin screen
        },
      ),
      // Add more options as needed
    ],
  ),
),
```

```dart
floatingActionButton: FloatingActionButton(
 backgroundColor: Colors.white,
 onPressed: () => Navigator.push(
    context, MaterialPageRoute(builder: (context) => AddMail())),
 child: Icon(
  Icons.add,
  size: 45,
  color: Colors.red,
 ),
),
floatingActionButtonLocation: FloatingActionButtonLocation.endFloat,

//cards for mails,loop through this list
//continuous data from firebase-->StreamBuilder
body: StreamBuilder(
   stream: mystream,
   builder: (context, snapshot) {
    if (!snapshot.hasData) {
     return CircularProgressIndicator();
    }
    print(snapshot.data!.docs.length);

    return ListView.builder(
       itemCount: snapshot.data!.docs.length,
       itemBuilder: (BuildContext context, int index) {
        DocumentSnapshot email = snapshot.data!.docs[index];
        print(email);
        return InkWell(
         onTap: () => Navigator.push(
            context,
            MaterialPageRoute(
               builder: (context) => ViewMail(
                  email['id'],
                  email['sender'],
                  email['time'],
                  email['picture'],
                  email['mail'],
                  email['subject'],
                  email['profilepic'],
                  email['username']))),
        child: Padding(
         padding: EdgeInsets.all(14),
         child: Row(
          mainAxisAlignment: MainAxisAlignment.spaceBetween,
          children: <Widget>[
           Row(
            children: [
             CircleAvatar(
              backgroundImage:
```

```dart
            NetworkImage(email['profilepic']),
          radius: 24,
        ),
        SizedBox(
          width: 15.0,
        ),
        Column(
          crossAxisAlignment: CrossAxisAlignment.start,
          children: <Widget>[
            Text(
              // 'Abhinaya',
              email['username'],
              style: email['hasred'] == false
                  ? mystyle(
                      22, Colors.black, FontWeight.w700)
                  : mystyle(
                      22, Colors.black, FontWeight.w400),
            ),
            Text(
              // 'Hello,how are u?',
              email['subject'],
              overflow: TextOverflow.ellipsis,
              style: email['hasred'] == false
                  ? mystyle(
                      18, Colors.black, FontWeight.w700)
                  : mystyle(
                      18, Colors.black, FontWeight.w400),
            )
          ],
        ),
      ],
    ),
    SizedBox(
      width: 5.0,
    ),
    Column(children: <Widget>[
      Text(
        DateFormat.Hm()
            .format(email['time'].toDate())
            .toString(),
        style: mystyle(18, Colors.black, FontWeight.w500),
      ),
      SizedBox(
        height: 5.0,
      ),
      InkWell(
          onTap: () => starmessage(email['id']),
          // child: Icon(Icons.star_border, size: 32))
          child: email['stared'] == false
```

```dart
                            ? Icon(Icons.star_border, size: 32)
                            : Icon(
                                Icons.star,
                                color: Colors.yellow,
                                size: 32,
                              )),
                  ])
                ],
              ),
            ),
          );
        });
      }),
      //TO DO:bottombar
      bottomNavigationBar: BottomNavigationBar(
        currentIndex: _currentIndex,
        onTap: (index) {
          // Handle navigation to different screens based on the selected index
          setState(() {
            _currentIndex = index;
          });
        },
        items: [
          BottomNavigationBarItem(
            icon: Icon(Icons.mail),
            label: 'Mail',
          ),
          BottomNavigationBarItem(
            icon: Icon(Icons.chat),
            label: 'Chat',
          ),
          BottomNavigationBarItem(
            icon: Icon(Icons.video_call),
            label: 'Meet',
          ),
        ],
      ),
    );
  }
}
```
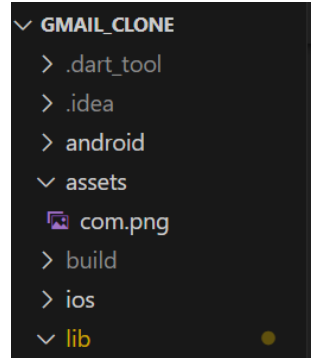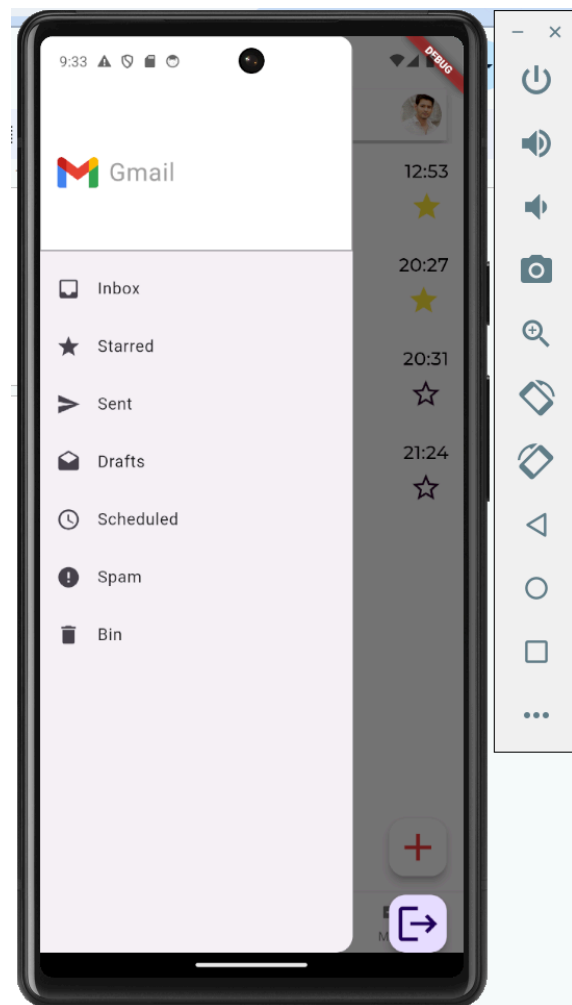
```
# To add assets to your application, add an assets section, like this:
assets:
  - assets/com.png
#    - images/a_dot_ham.jpeg
```

## Output:



**Conclusion:**Understood how to add icons and images in flutter app