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## Experiment No -03
## Exploring Flutter Widgets

**Aim -** Exp 3 To include icons, images, fonts in Flutter app

**Code and Output :**

**1) Button** the Button widget is not a specific widget, but rather a category of widgets that are used to handle user interaction by triggering actions when pressed. Some commonly used button widgets include:
Elevated Button , Textfield Button, Outlined button etc

### 2.) Textfield with Icon

In Flutter, a TextField widget is used to allow users to input text. It is a fundamental part of many forms and input-based user interfaces. TextField provides a text input area where users can enter and edit text, and it comes with various customization options.

### 3.Image

This widget holds the image which can fetch it from multiple sources like from the asset folder or directly from the URL.
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.

**4.Gesture Detection:** To make an image interactive like a button, you need to detect user gestures such as taps. Flutter provides gesture detection widgets like GestureDetector .These widgets allow you to listen for various touch events like taps, swipes, and drags.I used this widget to make image as a button.

**5.Icon Button:** Flutter provides the IconButton widget, which combines an icon with a tappable area, making it easy to create interactive icons that respond to user taps. The IconButton widget is commonly used for actions like navigation, opening menus, submitting forms, etc.

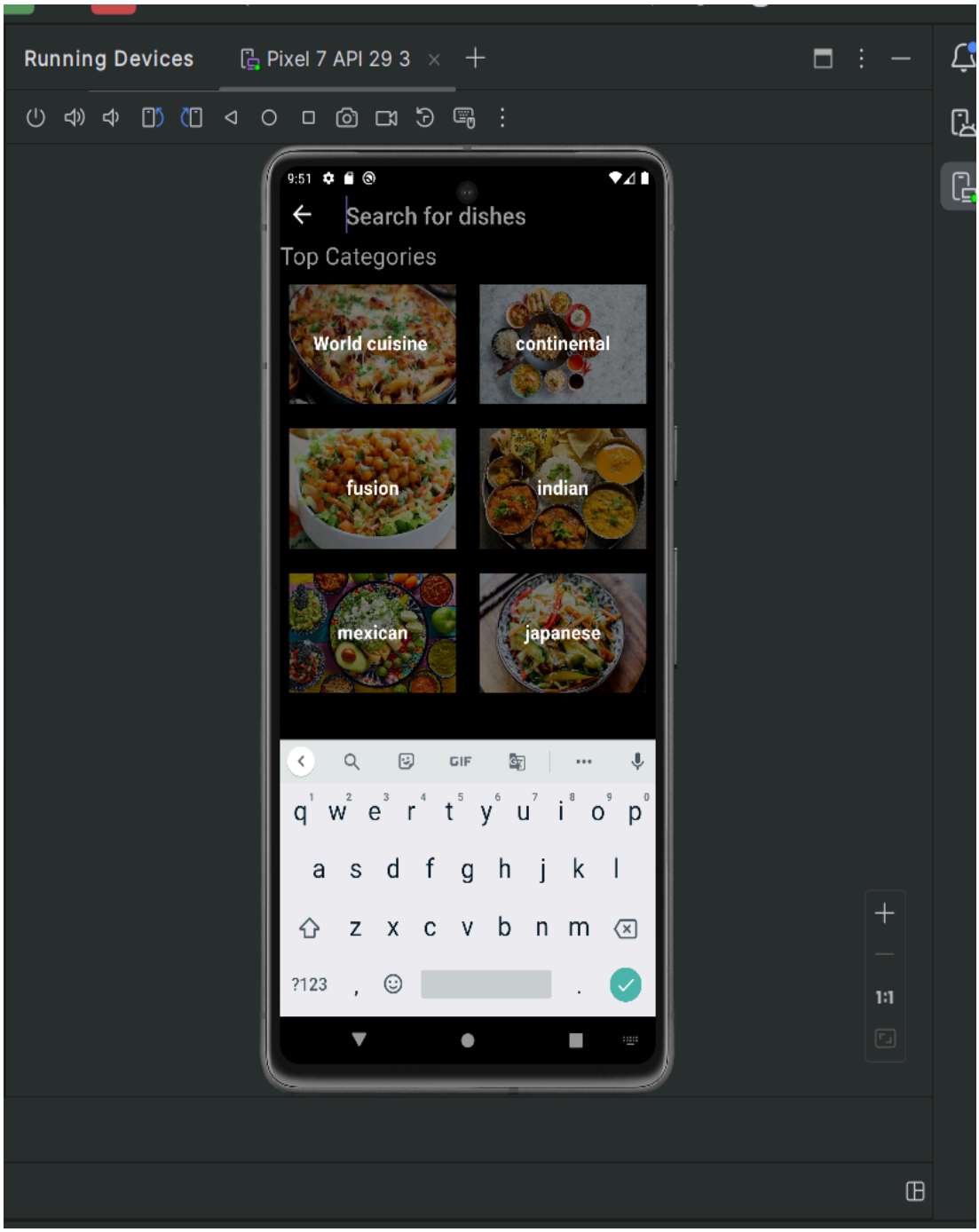
**Code -**

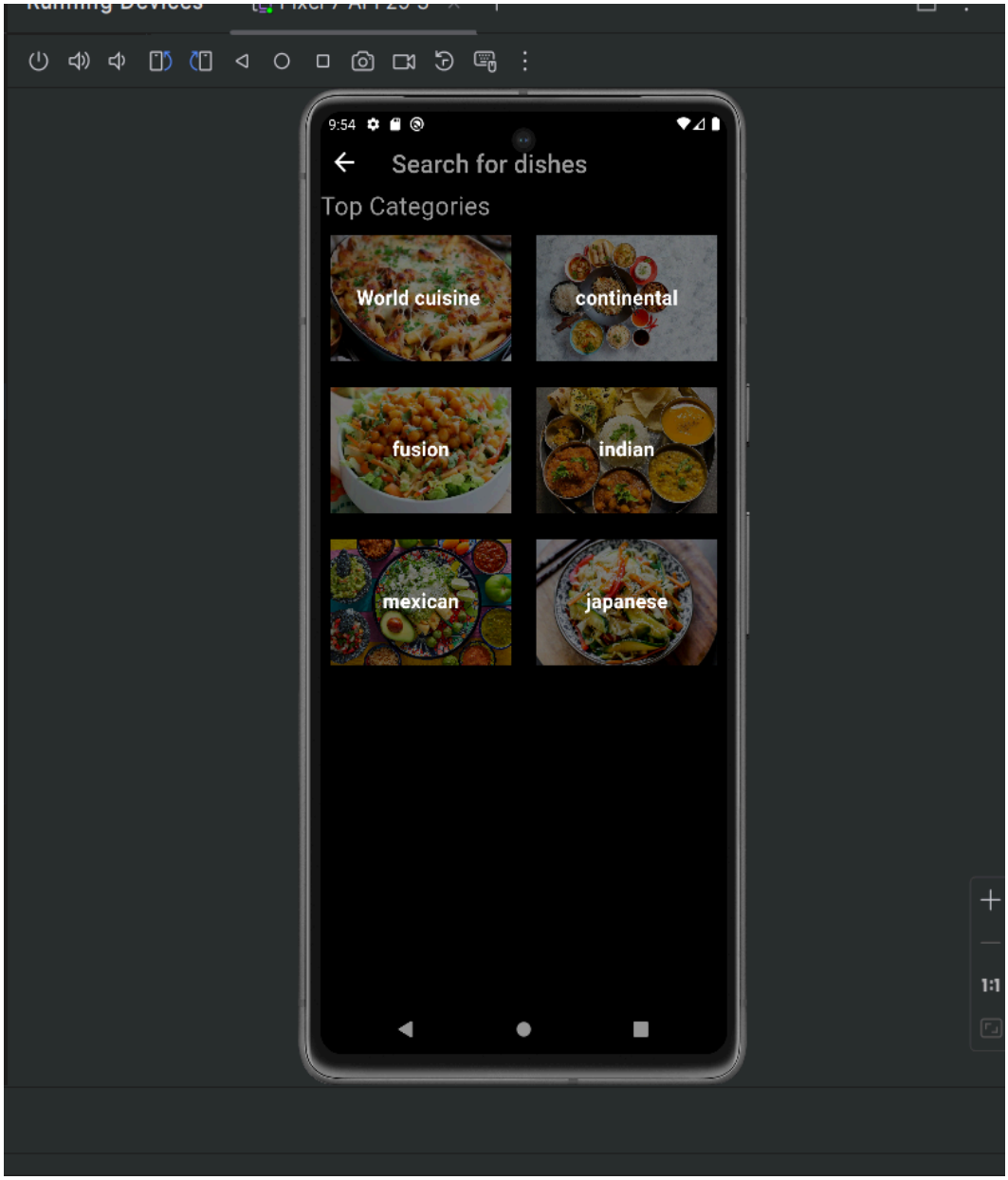
```
import 'package:flutter/material.dart';

class CateGory extends StatelessWidget {
 @override
 Widget build(BuildContext context) {
  return Scaffold(
    backgroundColor: Colors.black,
    appBar: AppBar(
      backgroundColor: Colors.black,
      leading: Row(
        children: [
          IconButton(
            icon: Icon(Icons.arrow_back, size: 30.0, color: Colors.white),
            onPressed: () {
              Navigator.pop(context);
            },
          ),
        ],
      ),
      title: TextField(
        style: TextStyle(color: Colors.white,fontSize: 25),
        decoration: InputDecoration(
          hintText: 'Search for dishes',
          hintStyle: TextStyle(color: Colors.grey,fontSize:25),
          border: InputBorder.none,
        ),
        onChanged: (value) {
          // Implement your search functionality here
          print('Search query: $value');
        },
      ),
      centerTitle: true,
      bottom: PreferredSize(
        preferredSize: Size.fromHeight(30.0),
        child: Align(
```

```
          alignment: Alignment.centerLeft,
          child: Text(
            'Top Categories',
            style: TextStyle(color: Colors.grey, fontSize: 25),
          ),
        ),
      ),
    ),
    body: Container(
      child: Padding(
        padding: const EdgeInsets.all(10.0),
        child: GridView(
          gridDelegate: SliverGridDelegateWithFixedCrossAxisCount(
            crossAxisCount: 2,
            mainAxisSpacing: 25,
            crossAxisSpacing: 25,
            childAspectRatio: 3 / 2, // Adjust the aspect ratio for rectangles
          ),
          children: [
            // Rectangular grid items with images and text
            buildGridItem('World cuisine ', 'assets/images/first.jpg'),
            buildGridItem('continental', 'assets/images/second.jpg'),
            buildGridItem('fusion', 'assets/images/fusion.jpg'),
            buildGridItem('indian', 'assets/images/forth.jpg'),
            buildGridItem('mexican', 'assets/images/mexian.jpg'),
            buildGridItem('japanese', 'assets/images/japaneese.jpg'),
          ],
        ),
      ),
    ),
  );
}


Widget buildGridItem(String text, String imageUrl ) {
  return GestureDetector(
    onTap: () {
```

```
      // Add functionality here for the button tap
      print('$text tapped');
    },
    child: Container(
      child: Stack(
        fit: StackFit.expand,
        children: [
          ColorFiltered(
            colorFilter: ColorFilter.mode(Colors.black.withOpacity(0.5),
BlendMode.dstATop),
            child: Image.asset(
              imageUrl,
              fit: BoxFit.cover,
            ),
          ),
          Center(
            child: Text(
              text,
              style: TextStyle(
                color: Colors.white,
                fontSize: 20,
                fontWeight: FontWeight.bold,
              ),
            ),
          ),
        ],
      ),
    ),
  );
 }
}
```

**OUTPUT :**


Running Devices
Pixel 7 API 29 3
9:51
Search for dishes
Top Categories
World cuisine
continental
fusion
indian
mexican
japanese
GIF
1:1


9:54
Search for dishes
Top Categories
World cuisine
continental
fusion
indian
mexican
japanese
1:1