Name - Sejal Maurya   **Batch -B**
Div - D15A   **Roll No - 35**

Experiment No -02
Exploring Common Widgets

Aim - To design flutter UI using common widgets
Theory -

Container: The Container widget is a versatile widget that can contain other widgets and apply various styling options, such as padding, margin, color, border, and alignment. It's often used as a layout element to structure the UI.

Text: The Text widget is used to display textual content within the UI. It supports styling options like font size, font weight, color, alignment, and text decoration.

Row and Column: These are layout widgets used to arrange child widgets horizontally (Row) or vertically (Column). They allow you to create flexible layouts and organize widgets in rows or columns.

AppBar: The AppBar widget is a material design widget used to create a customizable app bar at the top of the screen. It typically contains actions, titles, icons, and other UI elements relevant to the current screen or application.

Scaffold: The Scaffold widget is a layout widget that provides a framework for implementing basic material design layouts and features, such as app bars, drawers, bottom navigation bars, floating action buttons, and more.

IconButton: These are button widgets used to trigger actions or navigate to different parts of the application. They provide various styles and configurations for buttons, including text buttons, raised buttons, icon buttons, and more.

Code And Output :

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

import 'package:food/screen/category.dart';

// Define a class to represent each food item
class FoodItem {
  final String imagePath;
  final String foodName;
  final String description;
  final String price;
  final String category;
  final bool isVeg; // New property to indicate if the item is vegetarian
  final Color dotColor; // New property to hold the color of the dot
  final String offer; // New property to hold the offer information
  final String additionalText; // New property to hold additional text below the price

  FoodItem({
    required this.imagePath,
    required this.foodName,
    required this.description,
    required this.price,
    required this.category,
    required this.isVeg,
    required this.dotColor, // Initialize dotColor
    required this.offer, // Initialize offer
    required this.additionalText, // Initialize additionalText
  });
}

class ItemWidgets2 extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      home: Scaffold(
```

```dart
body: DefaultTabController(
  length: 6,
  child: Scaffold(
    backgroundColor: Colors.black,
    appBar: AppBar(
      backgroundColor: Colors.black,
      title: Text('Food Items'),
      bottom: TabBar(
        isScrollable: true,
        indicatorColor: Colors.orange,
        labelColor: Colors.orange,
        labelStyle: TextStyle(fontSize: 20),
        tabs: [
          Tab(text: 'Beverages and Cakes'),
          Tab(text: 'Breakfast'),
          Tab(text: 'Lunch'),
          Tab(text: 'Noddles'),
          Tab(text: 'Sandwitch'),
          Tab(text: 'Soup and Salad'),
        ],
      ),
    ),
    body: Stack(
      children: [
        TabBarView(
          children: [
            _buildTabView('Beverages and Cakes'),
            _buildTabView('Breakfast'),
            _buildTabView('Lunch'),
            _buildTabView('Noddles'),
            _buildTabView('Sandwitch'),
            _buildTabView('Soup and Salad'),
          ],
        ),
        Positioned(
          bottom: 20,
          right: 20,
```

```dart
          child: CircleAvatar(
            backgroundColor: Colors.grey[900],
            child: IconButton(
              icon: Icon(Icons.search),
              onPressed: () {
                Navigator.push(
                  context,
                  MaterialPageRoute(builder: (context) => (CateGory())),
                );
              },
              color: Colors.orange,
            ),
          ),
        ),
      ],
    ),
   ),
  ),
 ),
 );
}

Widget _buildTabView(String category) {
 final List<FoodItem> foodItems = [
   FoodItem(
     imagePath: 'assets/images/redvalvet.jpg',
     foodName: 'RedVelvet Cake',
     description: 'Special cake',
     price: '\₹199',
     category: 'Beverages and Cakes',
     isVeg: true,
     dotColor: Colors.green,
     offer: '10% off', // Example offer
     additionalText: '\₹199', // Example additional text
   ),
   FoodItem(
     imagePath: 'assets/images/redvalvetpastry.jpg',
```

```
      foodName: 'RedVelvet Cake',
      description: 'Special cake',
      price: '\₹199',
      category: 'Beverages and Cakes',
      isVeg: true,
      dotColor: Colors.green,
      offer: '10% off', // Example offer
      additionalText: '\₹199', // Example additional text
    ),
    FoodItem(
      imagePath: 'assets/images/mintchass.jpg',
      foodName: 'RedVelvet Cake',
      description: 'Special cake',
      price: '\₹199',
      category: 'Beverages and Cakes',
      isVeg: true,
      dotColor: Colors.green,
      offer: '10% off', // Example offer
      additionalText: '\₹199', // Example additional text
    ),
    FoodItem(
      imagePath: 'assets/images/watermelonjuice.jpg',
      foodName: 'RedVelvet Cake',
      description: 'Special cake',
      price: '\₹199',
      category: 'Beverages and Cakes',
      isVeg: true,
      dotColor: Colors.green,
      offer: '10% off', // Example offer
      additionalText: '\₹199', // Example additional text
    ),
    FoodItem(
      imagePath: 'assets/images/freshfruit.jpg',
      foodName: 'Fruit Salad',
      description: 'Diet Special',
      price: '\₹99',
      category: 'Breakfast',
```

```
  isVeg: true,
  dotColor: Colors.green,
  offer: '10% off', // Example offer
  additionalText: '\₹139', // Example additional text
),

FoodItem(
  imagePath: 'assets/images/idli.jpg',
  foodName: 'Idli',
  description: 'Tasty',
  price: '\₹159',
  category: 'Breakfast',
  isVeg: true,
  dotColor: Colors.green,
  offer: '10% off', // Example offer
  additionalText: '\₹199', // Example additional text
),
FoodItem(
  imagePath: 'assets/images/sadadosa.jpg',
  foodName: 'Dosa',
  description: 'healthy',
  price: '\₹149',
  category: 'Breakfast',
  isVeg: true,
  dotColor: Colors.green,
  offer: '10% off', // Example offer
  additionalText: '\₹179', // Example additional text
),


FoodItem(
  imagePath: 'assets/images/forth.jpg',
  foodName: 'Dal Rice',
  description: 'Special veg Thali',
  price: '\₹199',
  category: 'Lunch',
```

```dart
  isVeg: true,
  dotColor: Colors.green,
  offer: '10% off', // Example offer
  additionalText: '\₹250', // Example additional text
),

FoodItem(
  imagePath: 'assets/images/dietlunch.jpg',
  foodName: 'Lunch Special',
  description: '',
  price: '\₹249',
  category: 'Lunch',
  isVeg: true,
  dotColor: Colors.green,
  offer: '10% off', // Example offer
  additionalText: '\₹300', // Example additional text
),

FoodItem(
  imagePath: 'assets/images/hakkanoddles.jpg',
  foodName: 'Hakka Noddles',
  description: '',
  price: '\₹149',
  category: 'Noddles',
  isVeg: true,
  dotColor: Colors.green,
  offer: '10% off', // Example offer
  additionalText: '\₹199', // Example additional text
),
FoodItem(
  imagePath: 'assets/images/coldchillihakkanoddles.jpg',
  foodName: 'Cold Hakka Noddles',
  description: '',
  price: '\₹199',
  category: 'Noddles',
  isVeg: true,
  dotColor: Colors.green,
```

```dart
      offer: '10% off', // Example offer
      additionalText: '\₹249', // Example additional text
    ),
    FoodItem(
      imagePath: 'assets/images/chessycornsandwitch.jpg',
      foodName: 'Cheesy Corn Sandwitch',
      description: '',
      price: '\₹99',
      category: 'Sandwitch',
      isVeg: true,
      dotColor: Colors.green,
      offer: '10% off', // Example offer
      additionalText: '\₹149', // Example additional text
    ),
    FoodItem(
      imagePath: 'assets/images/classicgarlicbreadjpg.jpg',
      foodName: 'Classic Garlic Bread',
      description: '',
      price: '\₹199',
      category: 'Sandwitch',
      isVeg: true,
      dotColor: Colors.green,
      offer: '10% off', // Example offer
      additionalText: '\₹199', // Example additional text
    ),
    FoodItem(
      imagePath: 'assets/images/cornsoup.jpg',
      foodName: 'Corn Soup',
      description: '',
      price: '\₹99',
      category: 'Soup and Salad',
      isVeg: true,
      dotColor: Colors.green,
      offer: '10% off', // Example offer
      additionalText: '\₹149', // Example additional text
    ),
    FoodItem(
```

```dart
    imagePath: 'assets/images/freshfruit.jpg',
    foodName: 'Fresh Fruit Salad',
    description: '',
    price: '\₹49',
    category: 'Soup and Salad',
    isVeg: true,
    dotColor: Colors.green,
    offer: '10% off', // Example offer
    additionalText: '\₹79', // Example additional text
  ),
  FoodItem(
    imagePath: 'assets/images/fruitsalad.jpg',
    foodName: 'Fruit Salad',
    description: '',
    price: '\₹49',
    category: 'Soup and Salad',
    isVeg: true,
    dotColor: Colors.green,
    offer: '10% off', // Example offer
    additionalText: '\₹79', // Example additional text
  ),
  FoodItem(
    imagePath: 'assets/images/tomatosoup.jpg',
    foodName: 'Tomato Soup',
    description: '',
    price: '\₹99',
    category: 'Soup and Salad',
    isVeg: true,
    dotColor: Colors.green,
    offer: '10% off', // Example offer
    additionalText: '\₹149', // Example additional text
  ),


  // Add more food items here
];
```

```dart
List<FoodItem> filteredItems =
foodItems.where((item) => item.category == category).toList();
return ListView.builder(
  itemCount: filteredItems.length,
  itemBuilder: (context, index) {
    return Container(
      margin: EdgeInsets.symmetric(vertical: 8, horizontal: 13),
      decoration: BoxDecoration(
        borderRadius: BorderRadius.circular(20),
        color: Colors.black,
        boxShadow: [
          BoxShadow(
            color: Colors.black.withOpacity(0.4),
            spreadRadius: 1,
            blurRadius: 8,
          ),
        ],
      ),
      child: Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        children: [
          Padding(
            padding: const EdgeInsets.all(8.0),
            child: Row(
              mainAxisAlignment: MainAxisAlignment.start,
              children: [
                Container(
                  padding: EdgeInsets.all(2),
                  decoration: BoxDecoration(
                    color: Colors.white,
                    border: Border.all(
                        color: filteredItems[index].dotColor, width: 2),
                    borderRadius: BorderRadius.circular(1),
                  ),
                  child: Container(
                    width: 10,
                    height: 10,
```

```dart
              decoration: BoxDecoration(
                color: filteredItems[index].dotColor,
                shape: BoxShape.circle,
              ),
            ),
          ),
          SizedBox(width: 5),
          Text(
            filteredItems[index].isVeg ? 'Veg' : 'Non-Veg',
            style: TextStyle(
              color: Colors.white,
              fontWeight: FontWeight.bold,
            ),
          ),
        ),
      ],
    ),
  ),
),
InkWell(
  onTap: () {
    Navigator.pushNamed(context, "singleItemPage");
  },
  child: Container(
    margin: EdgeInsets.all(10),
    child: Image.asset(
      filteredItems[index].imagePath,
      width: 350,
      height: 350,
      fit: BoxFit.cover,
    ),
  ),
),
Padding(
  padding: EdgeInsets.only(left: 10, bottom: 8),
  child: Text(
    filteredItems[index].foodName,
    style: TextStyle(
      fontSize: 18,
```

```dart
                    fontWeight: FontWeight.bold,
                    color: Colors.white,
                  ),
                ),
              ),
              Padding(
                padding: EdgeInsets.only(left: 10, bottom: 8),
                child: Text(
                  filteredItems[index].description,
                  style: TextStyle(
                    fontSize: 18,
                    fontWeight: FontWeight.bold,
                    color: Colors.white60,
                  ),
                ),
              ),
              Padding(
                padding: EdgeInsets.symmetric(vertical: 10),
                child: Row(
                  mainAxisAlignment: MainAxisAlignment.spaceBetween,
                  children: [
                    Row(
                      children: [
                        Text(
                          filteredItems[index].price,
                          style: TextStyle(
                            fontWeight: FontWeight.bold,
                            fontSize: 18,
                            color: Colors.orange,
                          ),
                        ),
                        SizedBox(width: 5), // Adding some space between the price and
the additional text
                        Text(
                          filteredItems[index].additionalText, // Additional text
                          style: TextStyle(
                            fontSize: 18,
```

```dart
              fontWeight: FontWeight.bold,
              decoration: TextDecoration.lineThrough,
              decorationColor: Colors.grey,
              color: Colors.grey,
            ),

          ),
        ],
      ),
      Column(
        children: [
          Container(
            decoration: BoxDecoration(
              borderRadius: BorderRadius.circular(18),
              gradient: LinearGradient(
                colors: [
                  Color(0xFFFFFA500), // Light Orange
                  Color(0xFFFFF4500), // Dark Orange
                ],
              ),
            ),
            child: ElevatedButton(
              onPressed: () {
                // Add to Cart functionality
              },
              style: ButtonStyle(
                backgroundColor:
                MaterialStateProperty.all<Color>(
                    Colors.transparent),
                elevation: MaterialStateProperty.all<double>(
                    0), // No shadow
                shape: MaterialStateProperty.all<
                    RoundedRectangleBorder>(
                  RoundedRectangleBorder(
                    borderRadius: BorderRadius.circular(18),
                  ),
                ),
```
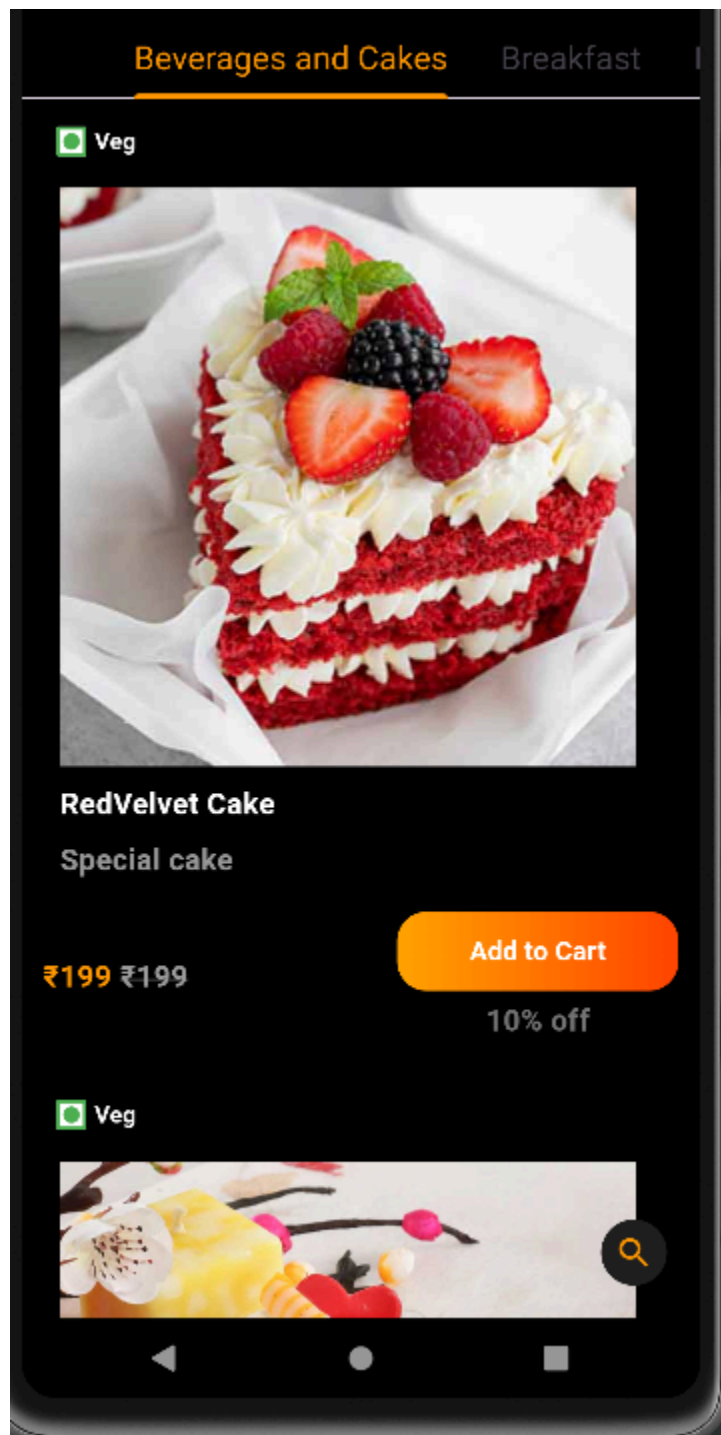
```dart
            ),
            child: Padding(
              padding: const EdgeInsets.symmetric(
                  horizontal: 20, vertical: 10),
              child: Text(
                "Add to Cart",
                style: TextStyle(
                  color: Colors.white,
                  fontWeight: FontWeight.bold,
                  fontSize: 16,
                ),
              ),
            ),
          ),
        ),
        SizedBox(height: 5), // Adding some space between the button
and the text
        Text(
          filteredItems[index].offer, // Offer text
          style: TextStyle(
            color: Colors.grey[600],
            fontSize: 18,
            fontWeight: FontWeight.bold,
          ),
        ),
      ],
    ),
  ],
),
],
),
);
},
);
}
}
```

Output :

Conclusion - I learnt about the common widgets in flutter like container, rows, columns ,images etc and successfully implemented.