MAD & PWA Lab
Journal

Experiment No.	03
Experiment Title.	To include icons, images, fonts in Flutter app
Roll No.	20
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Class	D15A
Subject	MAD & PWA Lab
Lab Outcome	LO2: Design and Develop interactive Flutter App by using widgets, layouts, gestures and animation
Grade:	

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

Theory:

Using Icons in Flutter

Icons in Flutter can be added using the built-in Material Icons or custom icon packs.

(a) Material Icons

Flutter provides a collection of built-in Material Icons, which can be used with the Icon widget.

Eg: Icon(Icons.home, size: 30, color: Colors.blue)

(b) Custom Icons

If you need icons that are not available in the Material Icons set, you can use external icon packs like:

- Font Awesome (font_awesome_flutter package)
- Custom SVG Icons (flutter_svg package)

  Eg in pubspec.yaml file -

  dependencies:
    font_awesome_flutter: ^10.5.0

In code -

import 'package:font_awesome_flutter/font_awesome_flutter.dart';

IconButton(
  icon: FaIcon(FontAwesomeIcons.heart, color: Colors.red),
  onPressed: () {},
)

Adding Images in Flutter

Images can be loaded in Flutter from different sources like assets, network, or memory.

(a) Using Network Images

Network images are loaded from an online URL. Example:

Eg: Image.network("https://example.com/sample.jpg", width: 200, height: 150)

(b) Using Asset Images

To use images from the local project folder (assets/), follow these steps:

1. Place the image inside the assets/images/ folder.
2. Declare the image in pubspec.yaml:

```
flutter:
  assets:
    - assets/images/sample.png
```

In code: Image.asset("assets/images/sample.png", width: 200, height: 150)

Adding Custom Fonts in Flutter

Custom fonts improve the visual identity of an app.

Steps to Add a Custom Font:

1. Download the font and place it inside the assets/fonts/ folder.
2. Declare the font in pubspec.yaml:

```
flutter:
  fonts:
    - family: CustomFont
      fonts:
        - asset: assets/fonts/CustomFont-Regular.ttf
        - asset: assets/fonts/CustomFont-Bold.ttf
          weight: 700
```

In code -

```
Text(
  "Hello, Flutter!",
  style: TextStyle(fontFamily: "CustomFont", fontSize: 20, fontWeight: FontWeight.bold),
)
```

Product.dart file

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

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

final List<Map<String, String>>
productDetails = [
 {"name": "Sancia women ethnic palazzo
set", "price": "₹2,500", "image":
"assets/palazzo.png", "rating": "4.5"},
 {"name": "Indya peach embroided net
Anarkali", "price": "₹5,000", "image":
"assets/anarkali.png", "rating": "4.7"},
 {"name": "Dori pink Women wear Salwar
Suit", "price": "₹1,200", "image":
"assets/salwar.png", "rating": "4.3"},
 {"name": "Sareeka Pink net lehenga choli",
"price": "₹800", "image":
"assets/lehenga.png", "rating": "4.0"},
];

class MyApp extends StatelessWidget {
 @override
 Widget build(BuildContext context) {
  return MaterialApp(
    debugShowCheckedModeBanner: false,
    home: IndianwearPage(),
  );
 }
}

class IndianwearPage extends
StatelessWidget {
 @override
 Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
     backgroundColor: Colors.white,
     elevation: 0,
     title: Text(
       "Indianwear",
       style: TextStyle(color: Colors.black,
fontSize: 20),
     ),
     leading: IconButton(
       icon: Icon(Icons.arrow_back, color:
Colors.black),
        onPressed: () =>
Navigator.pop(context),
     ),
     actions: [
       IconButton(
        icon: Icon(Icons.filter_list, color:
Colors.black),
         onPressed: () {
           // Add filter functionality
         },
       ),
     ],
    ),
    body: CustomScrollView(
     slivers: [
       SliverPadding(
        padding:
EdgeInsets.symmetric(horizontal: 5, vertical:
5),
        sliver: SliverGrid(
          delegate:
SliverChildBuilderDelegate(
            (BuildContext context, int index)
{
             return ProductCard(
              name:
productDetails[index]["name"]!,
              price:
productDetails[index]["price"]!,
              image:
productDetails[index]["image"]!,
              rating:
productDetails[index]["rating"]!,
             );
            },
            childCount: productDetails.length,
          ),
          gridDelegate:
SliverGridDelegateWithFixedCrossAxisCou
nt(
            crossAxisCount: 2,
```

```dart
          mainAxisSpacing: 2,
          crossAxisSpacing: 2,
          childAspectRatio: 0.58,
          ),
        ),
      ),
    ],
  ),
  bottomNavigationBar:
BottomNavigationBar(
    currentIndex: 0,
    selectedItemColor: Colors.black,
    unselectedItemColor: Colors.grey,
    backgroundColor: Colors.white,
    showUnselectedLabels: true,
    type: BottomNavigationBarType.fixed,
    onTap: (index) {
      // Add navigation functionality if
needed
    },
    items: [
      BottomNavigationBarItem(icon:
Icon(Icons.home), label: 'Home'),
      BottomNavigationBarItem(icon:
Icon(Icons.category), label: 'Categories'),
      BottomNavigationBarItem(icon:
Icon(Icons.style), label: 'Stay Stylish'),
      BottomNavigationBarItem(icon:
Icon(Icons.account_circle), label: 'Account'),
    ],
  ),
 );
 }
}

class ProductCard extends StatelessWidget
{
 final String name;
 final String price;
 final String image;
 final String rating;

 const ProductCard({
  required this.name,
  required this.price,
  required this.image,
  required this.rating,
});

  @override
 Widget build(BuildContext context) {
  return GestureDetector(
    onTap: () {
      // Navigate to the ProductDetailPage
      Navigator.push(
        context,
        MaterialPageRoute(
          builder: (context) =>
ProductDetailPage(
            name: name,
            price: price,
            image: image,
            rating: rating,
          ),
        ),
      );
    },
    child: Card(
      elevation: 3,
      shape:
RoundedRectangleBorder(borderRadius:
BorderRadius.circular(10)),
      child: Column(
        crossAxisAlignment:
CrossAxisAlignment.start,
        children: [
        // Product Image with Heart Icon &
Quick View Button
        Stack(
          children: [
            ClipRRect(
              borderRadius:
BorderRadius.vertical(top:
Radius.circular(10)),
              child: Image.asset(
                image,
                width: double.infinity,
                height: 220, // Increased image
height
                fit: BoxFit.cover,
              ),
            ),
            // Heart Icon
            Positioned(
              top: 8,
              right: 8,
```
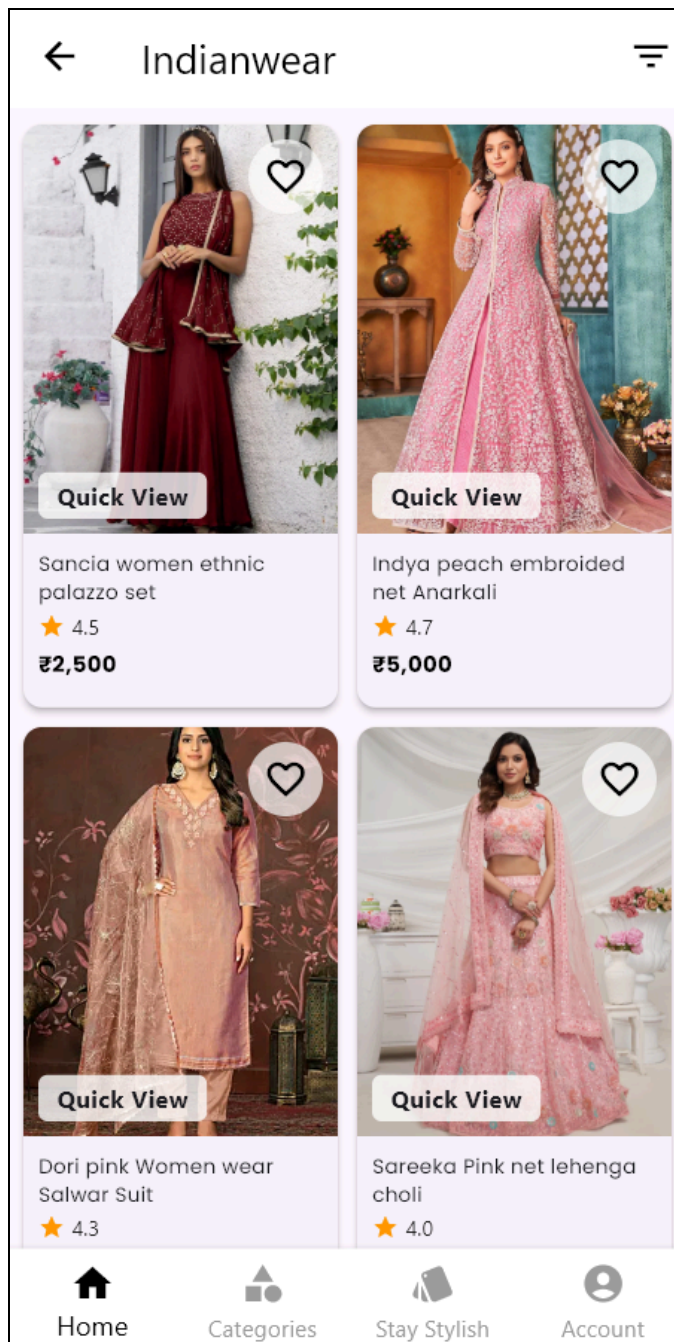
```
            child: Container(
              decoration: BoxDecoration(
                color:
Colors.white.withOpacity(0.7),
                shape: BoxShape.circle,
              ),
              child: IconButton(
                icon:
Icon(Icons.favorite_border, color:
Colors.black),
                onPressed: () {
                  // Add to wishlist functionality
                },
              ),
            ),
          ),
          // Quick View Button
          Positioned(
            bottom: 8,
            left: 8,
            child: Container(
              padding:
EdgeInsets.symmetric(vertical: 3, horizontal:
10),
              decoration: BoxDecoration(
                color:
Colors.white.withOpacity(0.8),
                borderRadius:
BorderRadius.circular(5),
              ),
              child: Text(
                "Quick View",
                style: TextStyle(fontSize: 12,
fontWeight: FontWeight.bold),
              ),
            ),
          ),
        ],
      ),
```

```
      // Wrap the Column with a Flexible
widget to allow ListView
      Flexible(
        fit: FlexFit.tight,
        child: ListView(
          padding: EdgeInsets.all(8),
          shrinkWrap: true,  // Ensures
ListView doesn't take more space than
needed
          physics:
NeverScrollableScrollPhysics(),  // Disables
scrolling inside the ListView
          children: [
            Text(name, style:
TextStyle(fontSize: 10, fontFamily:
"Poppins")),
            SizedBox(height: 4),
            Row(
              children: [
                Icon(Icons.star, color:
Colors.orange, size: 14),
                SizedBox(width: 4),
                Text(rating, style:
TextStyle(fontSize: 10, color:
Colors.black87)),
              ],
            ),
            SizedBox(height: 4),
            Text(price, style:
TextStyle(fontSize: 11, color: Colors.black,
fontWeight: FontWeight.bold, fontFamily:
"Poppins")),
          ],
        ),
      ),
    ],
  ),
);
}
}
```

ProductDetailPage.dart

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

class ProductDetailPage extends
StatelessWidget {
  final String name;
  final String price;
  final String image;
  final String rating;

  const ProductDetailPage({
    required this.name,
    required this.price,
    required this.image,
    required this.rating,
  });

  @override
  Widget build(BuildContext context) {
```

```dart
    return Scaffold(
      appBar: AppBar(
        backgroundColor: Colors.white,
        elevation: 0,
        title: Text(
          "Product Details",
          style: TextStyle(color: Colors.black,
fontSize: 20),
        ),
        leading: IconButton(
          icon: Icon(Icons.arrow_back, color:
Colors.black),
          onPressed: () =>
Navigator.pop(context),
        ),
      ),
      body: SingleChildScrollView(  // Makes
the entire page scrollable
        padding: const EdgeInsets.all(8.0),
        child: Container(
          margin:
EdgeInsets.symmetric(horizontal: 12.0),
          child: Column(
            crossAxisAlignment:
CrossAxisAlignment.start,
            children: [
              // Product Image
              Center(
                child: ClipRRect(
                  borderRadius:
BorderRadius.circular(6),
                  child: Image.asset(
                    image,
                    width: 300,
                    height: 400,
                    fit: BoxFit.cover,
                  ),
                ),
              ),
              SizedBox(height: 20),
              // Product Name
              Text(name, style:
TextStyle(fontSize: 18, fontFamily:
"Poppins")),
              SizedBox(height: 10),
              // Rating
              Row(
                children: [
                  Icon(Icons.star, color:
Colors.orange, size: 15),
                  SizedBox(width: 5),
                  Text(rating, style:
TextStyle(fontSize: 14)),
                ],
              ),
              SizedBox(height: 10),
              // Price
              Text(price, style: TextStyle(fontSize:
18, color: Colors.black,fontFamily:
"Poppins", fontWeight: FontWeight.bold)),
              SizedBox(height: 20),
              // Product Description
              Text(
                "This is a great product. It offers a
blend of style, comfort, and quality. Perfect
for any occasion.",
                style: TextStyle(fontSize: 12, color:
Colors.black87),
              ),
              SizedBox(height: 20),
              // Select Size (like Nykaa)
              Text("Select Size", style:
TextStyle(fontSize: 14, fontWeight:
FontWeight.bold, fontFamily: "Poppins")),
              SizedBox(height: 10),
              DropdownButton<String>(
                isExpanded: true,
                hint: Text("Choose a size"),
                items: <String>['S', 'M', 'L', 'XL',
'XXL'].map((String size) {
                  return
DropdownMenuItem<String>(
                    value: size,
                    child: Text(size),
                  );
                }).toList(),
                onChanged: (value) {
                  // Handle size selection
                },
              ),
              SizedBox(height: 20),
              // Product Details
              Text("Product Details", style:
TextStyle(fontSize: 14, fontWeight:
FontWeight.bold, fontFamily: "Poppins")),
              SizedBox(height: 10),
```

```dart
        Text(
          "Material: Cotton\nBrand:
XYZ\nCare: Hand wash\nColor:
Red\nPattern: Solid",
            style: TextStyle(fontSize: 12, color:
Colors.black87, fontFamily: "Poppins"),
          ),
          SizedBox(height: 20),
          // Delivery Date
          Text("Delivery Date", style:
TextStyle(fontSize: 14, fontWeight:
FontWeight.bold, fontFamily: "Poppins")),
          SizedBox(height: 10),
          Text(
            "Expected delivery: 3-5 business
days.",
            style: TextStyle(fontSize: 14, color:
Colors.black87, fontFamily: "Poppins"),
          ),
          SizedBox(height: 20),
          // Add to Cart Button
          Center(
            child: ElevatedButton(
              onPressed: () {
                // Add to cart functionality (you
can implement it here)
              },
              style: ElevatedButton.styleFrom(
                padding:
EdgeInsets.symmetric(vertical: 15,
horizontal: 100),

                shape:
RoundedRectangleBorder(borderRadius:
BorderRadius.circular(30)),
              ),
              child: Text("Add to Cart", style:
TextStyle(fontSize: 16, color: Colors.pink,
fontFamily: "Poppins")),
            ),
          ),
        ],
      ),
    ),
  ),
  );
 }
}
```

pubspec.yaml

```yaml
flutter:
  assets:
    - assets/pinkbg.jpg
    - assets/women.png
    - assets/indianwear.png
    - assets/footwear.png
    - assets/westernwear.png
    - assets/winterwear.png
    - assets/offer_banner.png
    - assets/sale_banner.png
    - assets/nykaa_logo.png
    - assets/product1.png
    - assets/product2.png
    - assets/product3.png
    - assets/product4.png
    - assets/product5.png
    - assets/product6.png
    - assets/foot.png
    - assets/ethnicwear.png
    - assets/watches.png
    - assets/jewellery.png
    - assets/bags.png
    - assets/lehenga.png
    - assets/salwar.png
    - assets/palazzo.png
    - assets/anarkali.png

  fonts:
    - family: Poppins
      fonts:
        - asset: assets/Poppins-Regular.ttf
        - asset: assets/Poppins-Bold.ttf
          weight: 700
```

Sancia women ethnic palazzo set

★ 4.5

₹2,500

This is a great product. It offers a blend of style, comfort, and quality. Perfect for any occasion.

Select Size

Sancia women ethnic palazzo set

★ 4.5

₹2,500

This is a great product. It offers a blend of style, comfort, and quality. Perfect for any occasion.

Select Size

Choose a size ▼

Product Details

Material: Cotton
Brand: XYZ
Care: Hand wash
Color: Red
Pattern: Solid

Delivery Date

Expected delivery: 3-5 business days.

Add to Cart

Bag.dart

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

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

class MyApp extends StatelessWidget {
 const MyApp({super.key});

 @override
 Widget build(BuildContext context) {
  return MaterialApp(
   debugShowCheckedModeBanner: false,
   home: ShoppingBagScreen(),
  );
 }
}

class ShoppingBagScreen extends
StatelessWidget {
 @override
 Widget build(BuildContext context) {
  return Scaffold(
   appBar: AppBar(
    backgroundColor: Colors.white,
    elevation: 0,
    leading: IconButton(
     icon: const Icon(Icons.arrow_back,
color: Colors.black),
      onPressed: () {
       Navigator.pop(context); // Go back to
the previous screen
      },
    ),
    title: const Text(
     "Bag",
     style: TextStyle(color: Colors.black,
fontSize: 22, fontWeight: FontWeight.bold),
    ),
    actions: [
     TextButton(
      onPressed: () {},
      child: const Text(
       "Wishlist",
       style: TextStyle(color:
Colors.pinkAccent, fontSize: 14),
       ),
      ),
     ],
    ),
   body: Column(
    children: [


     // UPI Discount Info
     Container(
      padding: const EdgeInsets.all(10),
      color: Colors.blue[50],
      child: const Row(
       children: [
        Icon(Icons.info_outline, color:
Colors.blue),
         SizedBox(width: 8),
         Text("Flat discount on UPI
payment"),
        ],
       ),
      ),

     // Check Delivery Date Section
     Container(
      padding: const EdgeInsets.all(12),
      child: Row(
       children: [
        const
Icon(Icons.local_shipping_outlined, color:
Colors.black),
        const SizedBox(width: 10),
        const Text("Check Delivery Date"),
        const Spacer(),
        ElevatedButton(
         onPressed: () {},
         child: const Text("Enter
Pincode"),
        ),
       ],
      ),
     ),

     // Product List
     Expanded(
      child: ListView(
       children: [
        ProductItem(
```

```dart
            imageUrl:
"https://uspoloassn.in/cdn/shop/products/3_f
eb4870a-798f-4663-9eed-768c9e04a376_3
024x.jpg?v=1686246326", // Replace with
actual image URL
              brand: "U.S. POLO ASSN.",
              title: "Light Blue High Rise
Pleated Wide Leg...",
              size: "Size 28",
              price: 1820,
              originalPrice: 2799,
              discount: "35% off",
            ),
            ProductItem(
              imageUrl:
"https://images-static.nykaa.com/media/cata
log/product/tr:h-800,w-800,cm-pad_resize/c/
3/c35b0abICONISPECAIN009_1.jpg", //
Replace with actual image URL
              brand: "Aldo",
              title: "Iconispeca-In009 Women
Black Sneake...",
              size: "Size UK 3",
              price: 0, // Update price
              originalPrice: 0, // Update original
price
              discount: "", // Update discount if
needed
            ),
          ],
        ),
      ),

      // Savings Section
      Container(
        padding: const EdgeInsets.all(10),
        color: Colors.green[50],
        child: const Text(
          "You will save ₹6,978 on this
purchase.",
          style: TextStyle(color: Colors.green,
fontSize: 12),
        ),
      ),

      // Total Price & Proceed to Buy Button
      Container(
        padding: const EdgeInsets.all(12),
        color: Colors.white,
        child: Row(
          mainAxisAlignment:
MainAxisAlignment.spaceBetween,
          children: [
            Column(
              crossAxisAlignment:
CrossAxisAlignment.start,
              children: [
                const Text(
                  "₹7,849",
                  style: TextStyle(fontSize: 20,
fontWeight: FontWeight.bold),
                ),
                TextButton(
                  onPressed: () {},
                  child: const Text("View
Details", style: TextStyle(color:
Colors.blue)),
                ),
              ],
            ),
            ElevatedButton(
              style: ElevatedButton.styleFrom(
                backgroundColor: Colors.black,
                padding: const
EdgeInsets.symmetric(horizontal: 20,
vertical: 15),
              ),
              onPressed: () {},
              child: const Text("Proceed to
Buy", style: TextStyle(color: Colors.white,
fontSize: 16)),
            ),
          ],
        ),
      ),
    ],
  ),
 );
}
}

class ProductItem extends StatelessWidget
{
 final String imageUrl;
 final String brand;
 final String title;
```

```dart
  final String size;
  final int price;
  final int originalPrice;
  final String discount;

  const ProductItem({
    required this.imageUrl,
    required this.brand,
    required this.title,
    required this.size,
    required this.price,
    required this.originalPrice,
    required this.discount,
  });

  @override
  Widget build(BuildContext context) {
    return Container(
      margin: const
EdgeInsets.symmetric(vertical: 10,
horizontal: 15),
      padding: const EdgeInsets.all(10),
      decoration: BoxDecoration(
        color: Colors.white,
        borderRadius:
BorderRadius.circular(10),
        boxShadow: [
          BoxShadow(color:
Colors.grey.shade200, blurRadius: 5,
spreadRadius: 1),
        ],
      ),
      child: Row(
        crossAxisAlignment:
CrossAxisAlignment.start,
        children: [
          Image.network(imageUrl, width: 80,
height: 80, fit: BoxFit.cover),
          const SizedBox(width: 10),
          Expanded(
            child: Column(
              crossAxisAlignment:
CrossAxisAlignment.start,
              children: [
                Text(brand, style: const
TextStyle(fontSize: 14, fontWeight:
FontWeight.bold)),
                Text(title, style: const
TextStyle(fontSize: 12, color: Colors.grey)),
                const SizedBox(height: 5),
                Text(size, style: const
TextStyle(fontSize: 11)),
                const SizedBox(height: 5),
                Row(
                  children: [
                    Text("₹$price", style: const
TextStyle(fontSize: 14, fontWeight:
FontWeight.bold)),
                    const SizedBox(width: 10),
                    Text(
                      "₹$originalPrice",
                      style: const TextStyle(fontSize:
12, decoration: TextDecoration.lineThrough,
color: Colors.grey),
                    ),
                    const SizedBox(width: 10),
                    Text(discount, style: const
TextStyle(fontSize: 12, color: Colors.green)),
                  ],
                ),
                const SizedBox(height: 5),
                const Text("7 day return", style:
TextStyle(fontSize: 12, color: Colors.grey)),
              ],
            ),
          ),
          IconButton(
            icon: const Icon(Icons.close, color:
Colors.grey),
            onPressed: () {},
          ),
        ],
      ),
    );
  }
}
```

ⓘ Flat discount on UPI payment

🚚 Check Delivery Date   Enter Pincode

U.S. POLO ASSN.   ✕
Light Blue High Rise Pleated
Wide Leg...

Size 28

₹1820 ~~₹2799~~ 35% off

7 day return

Aldo   ✕
Iconispeca-In009 Women Black
Sneake...

Size UK 3

₹0 ~~₹0~~

7 day return

You will save ₹6,978 on this purchase.

₹7,849   **Proceed to Buy**

View Details