

## Experiment 4

**Aim:** To design flutter ui by including common widgets

**Theory:**Forms are essential in collecting user input in apps. Flutter provides interactive form widgets such as:

- **TextField:** Takes text input.
- **DropDownButton:** Lets users select from a list of options.
- **ElevatedButton:** Triggers actions like form submission.
- **Form & GlobalKey:** Used for validation and managing form state.

Flutter also supports input validation and displaying feedback to users.

### Common Widgets Used:

- Form & GlobalKey<FormState>
- TextFormField
- DropDownButtonFormField
- DatePicker
- ElevatedButton

### Code:

```
import 'package:flutter/material.dart';
import 'package:monkey_app_demo/const/colors.dart';
import 'package:monkey_app_demo/screens/changeAddressScreen.dart';
import 'package:monkey_app_demo/screens/homeScreen.dart';
import 'package:monkey_app_demo/utils/helper.dart';
import 'package:monkey_app_demo/widgets/customNavBar.dart';
import 'package:monkey_app_demo/widgets/customTextInput.dart';
```

```
class CheckoutScreen extends StatelessWidget {  
  static const routeName = "/checkoutScreen";  
  
  @override  
  Widget build(BuildContext context) {  
    return Scaffold(  
      body: Stack(  
        children: [  
          SafeArea(  
            child: Column(  
              crossAxisAlignment: CrossAxisAlignment.start,  
              children: [  
                Row(  
                  children: [  
                    IconButton(  
                      onPressed: () {  
                        Navigator.of(context).pop();  
                      },  
                      icon: Icon(  
                        Icons.arrow_back_ios_rounded,  
                      ),  
                    ),  
                    Expanded(  
                      child: Text(  
                        "Checkout",  
                        style: Helper.getTheme(context).headline5,  
                      ),  
                    ),  
                  ],  
                ),  
              ],  
            ),  
          ],  
        ),  
      ),  
    );  
  }  
}
```

```
),
  SizedBox(
    height: 20,
  ),
  Padding(
    padding: const EdgeInsets.symmetric(horizontal: 20),
    child: Text("Delivery Address"),
  ),
  SizedBox(
    height: 10,
  ),
  Padding(
    padding: const EdgeInsets.symmetric(horizontal: 20),
    child: Row(
      mainAxisAlignment: MainAxisAlignment.spaceBetween,
      children: [
        SizedBox(
          width: Helper.getScreenWidth(context) * 0.4,
          child: Text(
            "653 Nostrand Ave., Brooklyn, NY 11216",
            style: Helper.getTheme(context).headline3,
          ),
        ),
      ],
    ),
    child: TextButton(
      onPressed: () {
        Navigator.of(context)
          .pushNamed(ChangeAddressScreen.routeName);
      },
    ),
  ),
  TextButton(
    onPressed: () {
      Navigator.of(context)
        .pushNamed(ChangeAddressScreen.routeName);
    },
    child: Text(
```

```
        "Change",
        style: TextStyle(
          fontWeight: FontWeight.bold,
        ),
      ),
    ),
  ],
),
SizedBox(
  height: 10,
),
Container(
  height: 10,
  width: double.infinity,
  color: AppColor.placeholderBg,
),
SizedBox(
  height: 20,
),
Padding(
  padding: const EdgeInsets.symmetric(horizontal: 20),
  child: Row(
    mainAxisAlignment: MainAxisAlignment.spaceBetween,
    children: [
      Text("Payment method"),
      TextButton(
        onPressed: () {
          showModalBottomSheet(
```

```
shape: RoundedRectangleBorder(
  borderRadius: BorderRadius.circular(20),
),
isScrollControlled: true,
isDismissible: false,
context: context,
builder: (context) {
  return Container(
    height: Helper.getScreenHeight(context) * 0.7,
    child: Column(
      children: [
        Row(
          mainAxisAlignment:
            MainAxisAlignment.end,
          children: [
            IconButton(
              onPressed: () {
                Navigator.of(context).pop();
              },
              icon: Icon(
                Icons.clear,
              ),
            )
          ],
        ),
        Padding(
          padding: const EdgeInsets.symmetric(
            horizontal: 20.0),
          child: Row(
```

```
children: [
  Text(
    "Add Credit/Debit Card",
    style: Helper.getTheme(context)
      .headline3,
  )
],
),
),
Padding(
  padding: const EdgeInsets.symmetric(
    horizontal: 20.0),
  child: Divider(
    color: AppColor.placeholder
      .withOpacity(0.5),
    thickness: 1.5,
    height: 40,
  ),
),
Padding(
  padding: const EdgeInsets.symmetric(
    horizontal: 20.0),
  child: CustomTextInput(
    hintText: "card Number"),
),
```

**Screenshots:**

The image displays two screenshots of a mobile application interface. The left screenshot, titled 'Payment Details', shows a 'Customize your payment method' screen. It features a 'Cash/Card on delivery' option with a checkmark, a 'VISA' card with a 'Delete Card' button, and a section to 'Add Credit/Debit Card' with input fields for Card Number, Expiry (MM/YY), Security Code, First Name, and Last Name. The right screenshot, titled 'Checkout', shows the 'Delivery Address' as '653 Nostrand Ave., Brooklyn, NY 11216' with a 'Change' link. Below this is the 'Payment method' section with options for 'Cash on delivery', 'VISA', and 'johnndoe@email.com'. A summary table shows 'Sub Total' as \$68, 'Delivery Cost' as \$2, 'Discount' as -\$4, and 'Total' as \$66. A large orange 'Send Order' button is at the bottom, with a home icon in the center. The bottom navigation bar includes icons for Menu, Offers, Profile, and More.

**Conclusion:** In this lab, we explored how to create and manage interactive forms in Flutter using widgets such as `TextFormField`, `DropDownButtonFormField`, and `ElevatedButton`. We designed a payment and checkout form that includes card details input, payment method selection, and dynamic validation. This hands-on experience demonstrates how forms can be used to securely collect and manage user payment information, making them essential for building real-world e-commerce applications.

