**Vinay Israni Batch :- B**

**D15A\_24**

**Experiment no. :- 05**

**Aim :-** : To apply navigation,routing and gestures in Flutter.

**Theory :-**

In Flutter, navigation, routing, and gestures are essential concepts for creating interactive and navigable user interfaces.

**Navigation:** Navigation refers to the process of moving between different screens or pages within a Flutter app. Flutter provides the Navigator widget for managing navigation and routing.

**Routing:** Routing is the mechanism used to define the paths or routes between different screens in your app. Each route typically corresponds to a different widget or screen in your app.

**CODE -** import 'dart:async';

import 'package:flutter/material.dart';

import 'package:flutter/services.dart';

import 'Authentication/auth.dart';

class MyHomePage extends StatefulWidget {

@override

\_MyHomePageState createState() => \_MyHomePageState();

}

class \_MyHomePageState extends State<MyHomePage> {

Color \_backgroundColor = Colors.white; // Initial background color

@override

void initState() {

super.initState();

// Start the background color changing loop

startBackgroundColorLoop();

}

void startBackgroundColorLoop() {

Timer.periodic(Duration(seconds: 2), (timer) {

// Change the background color every 2 seconds

setState(() {

\_backgroundColor = \_backgroundColor == Colors.white ? Colors.black : Colors.white;

});

});

}

@override

Widget build(BuildContext context) {

return Scaffold(

body: AnimatedContainer(

duration: Duration(seconds: 1), // Duration for smooth transition

color: \_backgroundColor, // Set background color

child: Center(

child: Column(

mainAxisAlignment: MainAxisAlignment.center,

children: <Widget>[

// GIF at center

Image.asset(

'assets/black-cat.gif', // Replace with your GIF path

width: 300, // Adjust width as needed

height: 300, // Adjust height as needed

),

SizedBox(height: 40),

Text(

'Welcome To Github',

style: TextStyle(

fontSize: 24,

fontWeight: FontWeight.bold,

color: \_backgroundColor == Colors.white ? Colors.black : Colors.white, // Text color based on background color

),

),

SizedBox(height: 20),

ElevatedButton(

onPressed: () {

// Navigate to another screen

Navigator.push(

context,

MaterialPageRoute(builder: (context) => AuthScreen()),

);

},

style: ElevatedButton.styleFrom(

foregroundColor: \_backgroundColor == Colors.white ? Colors.white : Colors.black, // Text color based on background color

backgroundColor: \_backgroundColor == Colors.white ? Colors.black : Colors.white, // Button background color based on background color

padding: EdgeInsets.symmetric(horizontal: 40, vertical: 10),

shape: RoundedRectangleBorder(

borderRadius: BorderRadius.circular(5.0), // Button border radius

side: BorderSide(color: Colors.black), // Button border color

),

),

child: Text(

'Continue',

style: TextStyle(

fontSize: 20,

),

),

),

],

),

),

),

);

}

}

OUTPUT - 