Practical No. 10

Aim: Write an Android program to demonstrate the concept of Gestures in Flutter.

main.dart

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

void main() => runApp(GestureDemo());

class GestureDemo extends StatefulWidget {
  @override
  _GestureDemoState createState() => _GestureDemoState();
}

class _GestureDemoState extends State<GestureDemo> {
  String _gestureStatus = '';

  void _onTap() {
    setState(() {
      _gestureStatus = 'Tapped!';
    });
  }

  void _onDoubleTap() {
    setState(() {
      _gestureStatus = 'Double Tapped!';
    });
  }

  void _onLongPress() {
    setState(() {
      _gestureStatus = 'Long Pressed!';
    });
  }

  void _onVerticalDragStart(DragStartDetails details) {
    setState(() {
      _gestureStatus = 'Drag started vertically!';
    });
  }

  void _onVerticalDragUpdate(DragUpdateDetails details) {
    setState(() {
      _gestureStatus = 'Dragging vertically!';
    });
  }
```

```dart
void _onVerticalDragEnd(DragEndDetails details) {
  setState(() {
    _gestureStatus = 'Drag ended vertically!';
  });
}

@override
Widget build(BuildContext context) {
  return MaterialApp(
    home: Scaffold(
      appBar: AppBar(
        title: Text('Gesture Demo'),
      ),
      body: Column(
        mainAxisAlignment: MainAxisAlignment.center,
        children: <Widget>[
          GestureDetector(
            onTap: _onTap,
            onDoubleTap: _onDoubleTap,
            onLongPress: _onLongPress,
            onVerticalDragStart: _onVerticalDragStart,
            onVerticalDragUpdate: _onVerticalDragUpdate,
            onVerticalDragEnd: _onVerticalDragEnd,
            child: Container(
              height: 200,
              color: Colors.blueGrey,
              child: Center(
                child: Text(
                  _gestureStatus,
                  style: TextStyle(fontSize: 24),
                ),
              ),
            ),
          ),
        ],
      ),
    ),
  );
}
}
```

Output

Gesture Demo — Tapped!

Gesture Demo — Double Tapped!

Gesture Demo — Long Pressed!

Gesture Demo — Dragging vertically!

Gesture Demo — Drag ended vertically!