

Practical 7

Aim: Create an application with Navigation in Flutter.

Code:

SourceFile: Main.dart

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

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

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Flutter Navigation Example',
      theme: ThemeData(primarySwatch: Colors.blue),
      home: HomeScreen(),
    );
  }
}
```

homescreen.dart

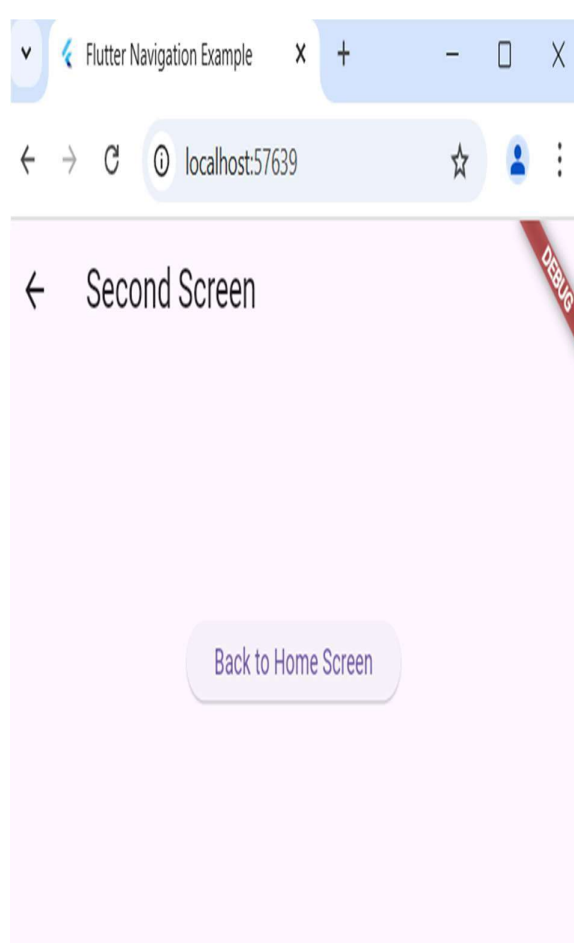
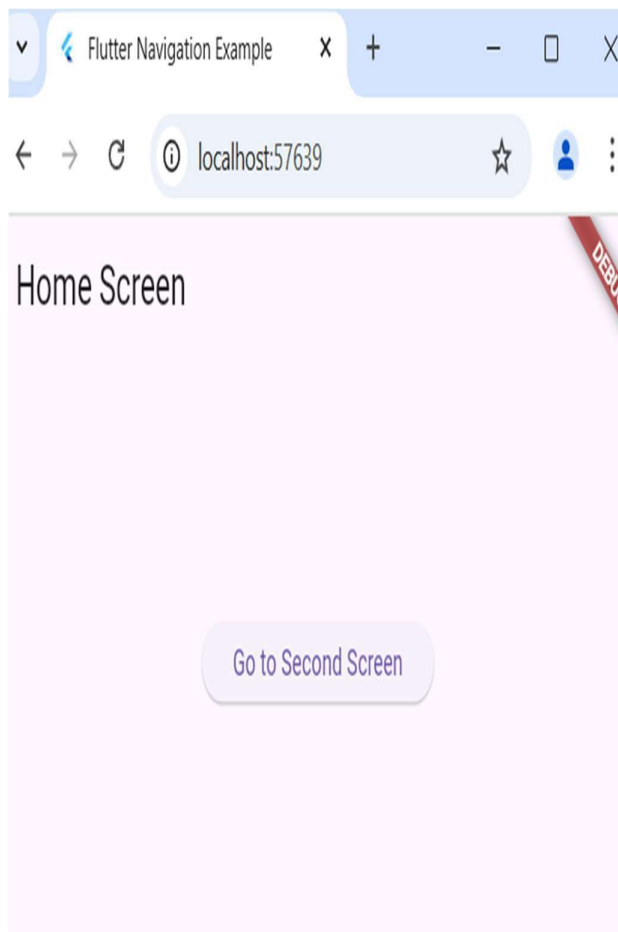
```
import 'package:flutter/material.dart';
import 'secondscreen.dart';

class HomeScreen extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(title: Text('Home Screen')),
      body: Center(
        child: ElevatedButton(
          onPressed: () {
            Navigator.push(
              context,
              MaterialPageRoute(builder: (context) => SecondScreen()),
            );
          },
          child: Text('Go to Second Screen'),
        ),
      ),
    );
  }
}
```

secondscreen.dart

```
import 'package:flutter/material.dart';
class SecondScreen extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(title: Text('Second Screen')),
      body: Center(
        child: ElevatedButton(
          onPressed: () {
            Navigator.pop(context);
          },
          child: Text('Back to Home Screen'), ),
      ),);}
```

Output:



Practical 8

Aim: Create an application with list view in Flutter.

Code:

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

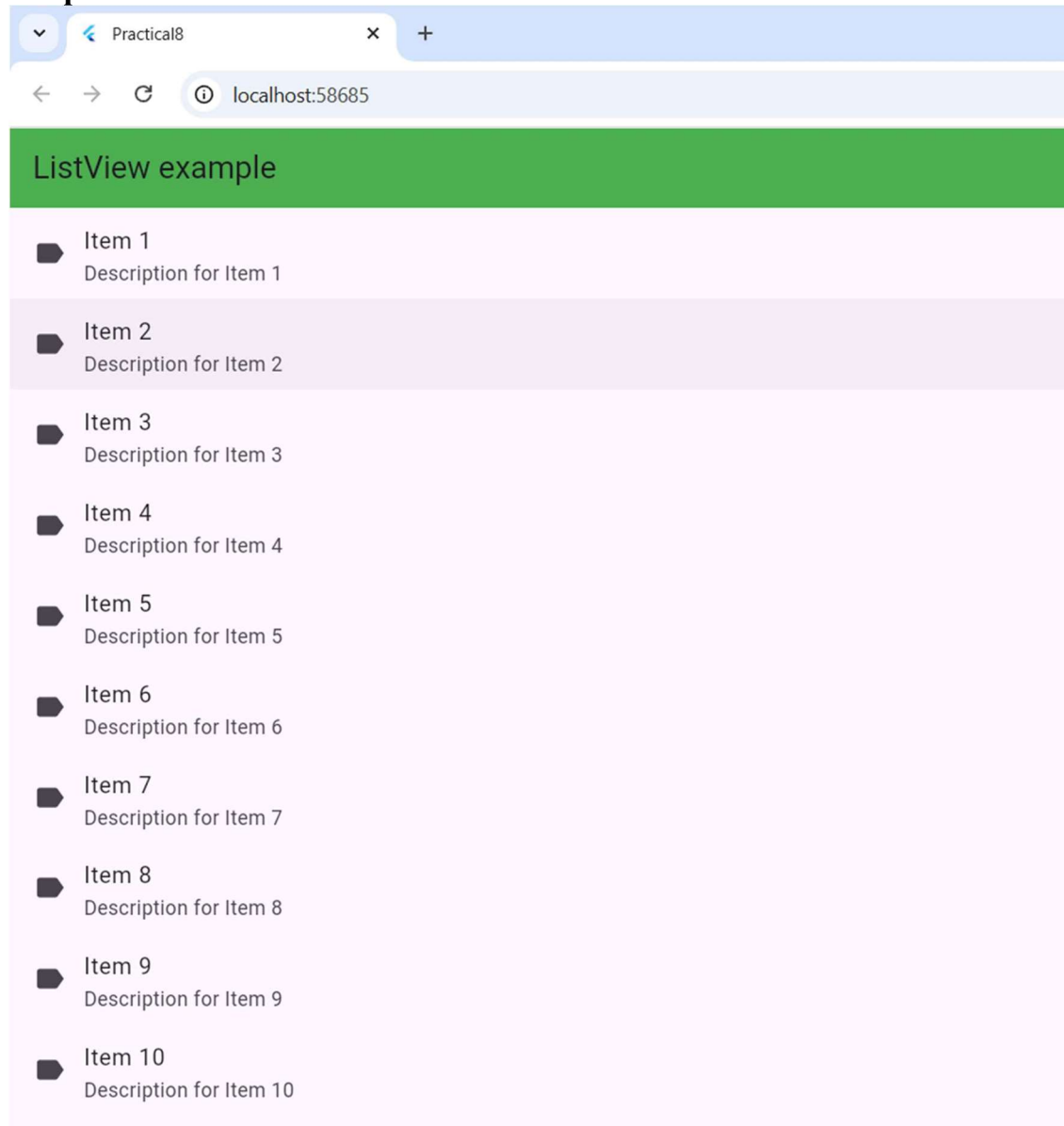
void main() {
  runApp(MyApp());
}

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Practical8',
      home: Scaffold(
        appBar: AppBar(
          backgroundColor: Colors.green,
          title: Text('ListView example'),
        ),
        body: MyListView(),
      ),
    );
  }
}

class MyListView extends StatelessWidget {
  final List<String> items = List.generate(20, (index) => 'Item ${index + 1}');

  @override
  Widget build(BuildContext context) {
    return ListView.builder(
      itemCount: items.length,
      itemBuilder: (context, index) {
        return ListTile(
          leading: Icon(Icons.label),
          title: Text(items[index]),
          subtitle: Text('Description for ${items[index]}'),
          onTap: () {
            ScaffoldMessenger.of(context).showSnackBar(
              SnackBar(content: Text('${items[index]} tapped!')),
            );
          },
        );
      },
    );
  }
}
```

Output:



Practical 9

Aim: Create an application with grid view in Flutter.

Code:

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

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

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      title: 'Flutter GridView Example',
      home: Scaffold(
        appBar: AppBar(
          title: Text('GridView Demo'),
        ),
        body: MyGridView(),
      ),
    );
  }
}

class MyGridView extends StatelessWidget {
  final List<String> items = List.generate(20, (index) => 'Item ${index + 1}');

  @override
  Widget build(BuildContext context) {
    return GridView.builder(
      gridDelegate: SliverGridDelegateWithFixedCrossAxisCount(
        crossAxisCount: 2, // Number of columns
        crossAxisSpacing: 8.0, // Spacing between columns
        mainAxisSpacing: 8.0, // Spacing between rows
        childAspectRatio: 1.0, // Aspect ratio of the items
      ),
      itemCount: items.length,
      itemBuilder: (context, index) {
        return Card(
          color: Colors.blue[100 * ((index % 8) + 1)],
          child: Center(
            child: Text(
              items[index],
              style: TextStyle(fontSize: 16, fontWeight: FontWeight.bold),
            ),
          ),
        );
      },
    );
  }
}
```

```
    },  
  );  
}  
}
```

Output:

