

Faculty of Technology and Engineering

Chandubhai S. Patel Institute of Technology

Department of Computer Science & Engineering

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Laboratory Manual Performa

Academic Year	:	2024-25	Semester	:	5 TH
Course code	:	CSE309	Course name	:	Mobile Application and Development

Practical - 2

Create an Application that shows a List of 10 countries and Flag using List View Builder.

Introduction of relevant concepts used:

- **Container Widget:** A widget in Flutter used to create a rectangular visual element with specified width, height, padding, and margins.
- **SvgPicture.network:** A widget from the `flutter_svg` package that loads and displays SVG images from a network URL with customizable size and fit properties.

main.dart

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

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

```
class MyApp extends StatelessWidget {  
  @override  
  Widget build(BuildContext context) {  
    return MaterialApp(  
      title: 'Countries and Flags',  
      theme: ThemeData(  
        primarySwatch: Colors.blue,  
      ),  
      home: CountriesList(),  
    );  
  }  
}
```

```
class CountriesList extends StatelessWidget {  
  final List<Map<String, String>> countries = [  
    {'name': 'United States', 'flag':  
'https://upload.wikimedia.org/wikipedia/en/a/a4/Flag_of_the_United_States.svg'},
```

```

        {'name': 'Canada', 'flag': 'https://upload.wikimedia.org/wikipedia/en/c/cf/Flag_of_Canada.svg'},
        {'name': 'United Kingdom', 'flag':
'https://upload.wikimedia.org/wikipedia/en/a/ae/Flag_of_the_United_Kingdom.svg'},
        {'name': 'Germany', 'flag':
'https://upload.wikimedia.org/wikipedia/en/b/ba/Flag_of_Germany.svg'},
        {'name': 'France', 'flag': 'https://upload.wikimedia.org/wikipedia/en/c/c3/Flag_of_France.svg'},
        {'name': 'Japan', 'flag': 'https://upload.wikimedia.org/wikipedia/en/9/9e/Flag_of_Japan.svg'},
        {'name': 'Australia', 'flag':
'https://upload.wikimedia.org/wikipedia/en/b/b9/Flag_of_Australia.svg'},
        {'name': 'India', 'flag': 'https://upload.wikimedia.org/wikipedia/en/4/41/Flag_of_India.svg'},
        {'name': 'Brazil', 'flag': 'https://upload.wikimedia.org/wikipedia/en/0/05/Flag_of_Brazil.svg'},
        {'name': 'South Korea', 'flag':
'https://upload.wikimedia.org/wikipedia/commons/0/09/Flag_of_South_Korea.svg'},
    ];

```

```

@override
Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
      title: Text('Countries and Flags'),
    ),
    body: ListView.builder(
      itemCount: countries.length,
      itemBuilder: (context, index) {
        return ListTile(
          leading: Container(
            width: 50,
            height: 50,
            child: SvgPicture.network(
              countries[index]['flag']!,
              width: 50,
              height: 50,
              fit: BoxFit.contain,
              placeholderBuilder: (context) => CircularProgressIndicator(),
              // errorBuilder: (context, error, stackTrace) => Icon(Icons.error),
            ),
          ),
          title: Text(countries[index]['name']!),
        );
      },
    ),
  );
}

```

Output (Screenshot)

