

Faculty of Technology and Engineering

Chandubhai S. Patel Institute of Technology

Department of Computer Science & Engineering

Date: / /

Laboratory Manual Performa

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

Practical - 5

Fetch any API data from the internet and display on List View Builder.

Introduction of relevant concepts used:

- **http package:** A Dart package used for making HTTP requests to fetch data from the internet, allowing interaction with web services and APIs.
- **ListView.builder:** A constructor in Flutter that builds a scrollable, efficient list of widgets on demand, suitable for displaying dynamic data fetched from APIs.

main.dart

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

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

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

data_screen.dart

```
import 'package:flutter/material.dart';
import 'package:http/http.dart' as http;
import 'dart:convert';
```

```

class DataScreen extends StatefulWidget {
  DataScreenState createState() => _DataScreenState();
}

class _DataScreenState extends State<DataScreen> {
  List<dynamic> _posts = [];
  bool _isLoading = true;
  void initState() {
    super.initState();
    fetchPosts();
  }
  Future<void> fetchPosts() async {
    final response = await http.get(Uri.parse('https://jsonplaceholder.typicode.com/posts'));
    if (response.statusCode == 200) {
      setState(() {
        _posts = json.decode(response.body);
        _isLoading = false;
      });
    } else {
      throw Exception('Failed to load posts');
    }
  }
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('Fetch Data Example'),
      ),
      body: _isLoading
        ? Center(child: CircularProgressIndicator())
        : ListView.builder(
            itemCount: _posts.length,
            itemBuilder: (context, index) {
              return ListTile(
                title: Text(_posts[index]['title']),
                subtitle: Text(_posts[index]['body']),
              );
            },
          ),
    );
  }
}

```

Output (Screenshot)



Grade/Marks
(____ / 10)

Sign of Lab Teacher with Date