



[M A D F]

Mobile App Development With Flutter

src > Components > C3 > Index.js > ...

Future Advantage

Flutter, Dart, Firebase,
Cross Platform Mobile Apps

Synnefo Solutions is an IT company-based academy offering industry-driven training with real-world labs and expert mentorship.



100% Job Guaranteed



Synnefo Smartspace:
Kerala's First LaaS



Intensive Internship



Realtime projects

Class Mode Details



ONLINE



OFFLINE



HYBRID

Course Duration: 6 Months
+ 1 Months Internship

Course Overview

Flutter Mobile Application Development helps you build high-performance, cross-platform mobile applications using a single codebase.

You will work with



Dart programming



Flutter UI & widgets



REST APIs & Backend integration



Firebase services



Real World mobile App projects

Suitable for

- Beginners
- Students
- Web & Mobile Devs
- UI/UX Designers
- Backend Developers
- Freelancers
- Career Switchers

Using Flutter and Dart, you will design responsive user interfaces, manage application state, integrate APIs, connect Firebase services, and deploy production-ready Android and iOS applications just like real industry teams.

By the end, you'll be ready for roles like

- | | |
|------------------------|--------------------------------|
| ▲ Flutter Developer | ▲ Application Support Engineer |
| ▲ Mobile App Developer | ▲ Junior Software Developer |
| ▲ Developer (Flutter) | ▲ Startup App Developer |

Features

Training Features

-  Real-time mobile app projects
-  Hands-on lab access
-  Doubt-clearing sessions
-  Recorded classes [Online / Hybrid]
-  Industry-experienced trainers

Key Modules

- Dart Programming Language
- Flutter Framework Architecture
- Stateless & Stateful Widgets
- Material & Cupertino Design
- State Management (Provider/GetX)
- REST API Integration
- Firebase Backend & Authentication
- Local Databases (SQLite/Hive)
- Native Device Features (Camera/GPS)
- Play Store & App Store Deployment

MOBILE
APPS
DEVELOPMENT

CAREERS

Career Opportunities

- ▶ Flutter Developer
- ▶ Mobile App Developer (Android / iOS)
- ▶ Junior Software Developer
- ▶ UI Developer (Flutter)
- ▶ Application Support Engineer
- ▶ Freelance App Developer
- ▶ Startup App Developer
- ▶ Intern / Trainee Flutter Developer

Certifications

- Synnefo Course Completion Certificate ◀
- NACTET Certificate ◀
- Internship Certificate ◀

ABOUT US

Founded in 2019, Synnefo Solutions is an IT-driven training institute offering industry-ready programs with real-time learning infrastructure.

Our Synnefo Smart Space provides a modern, technology enabled environment where students can access heavy duty labs on your phone, tablet, or basic laptop all through your browser.

We are affiliated with NACTET, CompTIA, Python Institute & Pearson Vue and provide continuous learning, internship opportunities, and career support.

Start your mobile app development journey with guaranteed job support

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Metro Station, Ernakulam





Flutter Syllabus

INTRODUCTION

- Understanding cross-platform software development.

VCS

- What is a Version Control System (VCS)
- Introduction to Git and GitHub
- Installing Git
- Configuring Git
- Basic Git commands
- Managing a git repository

FAMILIARIZATION

- Importance of flutter
- Introduction to dart
- Dartpad
- Installing Dart SDK



BASICS OF DART PROGRAMMING LANGUAGE

- Introduction
- Main() function
- Dart variables
- Data types
 - Numbers
 - Strings
 - Booleans
 - Lists
 - Maps
 - Sets
- Input of information to dart program
- Null Safety
- Final & Const
- Typedefs
- Collections & Advanced Data Handling
- Writing dart comments
- Operators in dart
 - Arithmetic Operators
 - Assignment Operators
 - Relational Operators
 - Type test Operators
 - Logical Operators
 - Bitwise Operators
 - Conditional Operators
- Conditional statements
 - If Condition
 - If-else Condition
 - If-else-if Condition
 - Switch case
- Looping statements
 - For Loop
 - For Each Loop
 - For in Loop
 - While Loop
 - Do While Loop
- Create project using basic programming concept



ADVANCED CONCEPTS IN DART

- **Functions**

- Arrow functions
- Optional Parameters
- Named parameters, Optional, positional parameters
- Required keyword
- Anonymous Functions / Lambda functions
- Higher-Order Functions
- Closures

- **Asynchronous Programming**

- Future (Asynchronous task handling)
- `async` / `await`
- Handling asynchronous errors

- **Object-oriented programming (OOP)**

- Inheritance
- Polymorphism
- Abstraction
- Encapsulation
- Mixins
- Abstract classes
- Static properties & methods
- Factory constructors
- Named constructors
- Getter & Setter methods
- Call method overriding (`operator()` method)

- **Error Handling & Debugging**

- **Dart File System & I/O**

- **Flutter Project structure and dart libraries**

- **Android specific project structure**

- **iOS-specific project structure**

- **Create a mini project using advanced programming concept.**

FLUTTER

- Understanding flutter
- Android studio
- Flutter SDK
- Installing and configuring flutter SDK
- Creating new Flutter Project
- Setup Android Virtual Device
- Run Flutter App
- Emulator Debug Mode
- Introduction to Flutter Widgets
- Creating Flutter App using Widgets
- MaterialApp

FLUTTER WIDGETS AND FUNDAMENTALS

- Scaffold Widget
- Image Widget
- Container Widget
- Column and Row Widget
- Icon Widget
- Layouts in Flutter
- Card Widget
- App Icons for iOS and Android Apps
- Use a Custom Font
- Creating a Menu
- Button Widget
- Creating a simple Flutter App
- Hot Reload and Hot Restart
- Stateful and Stateless Widgets
- MediaQuery & LayoutBuilder for responsiveness

NAVIGATION AND ROUTING

- App Structure and Navigation
- Navigate to a New Screen and Back
- Navigate with Named Routes and Return Data Among Screens
- Animate a Widget Across Screens
- WebView Widget in Flutter
- Navigation for Flutter Web (Browser URL sync)
- Navigation and Routing a Pizza Store App.

WIDGETS IMPELEMENTING MATERIAL DESIGN GUIDELINES-1

- Bottom Navigation Bar Widget
- Default Tab Controller, TabBar, and Tab Bar View Widgets
- List Tile Widget
- List View Widget
- Drawer Widget
- Data Table Widget
- Selectable Text Widget
- Stack Widget
- Paginated DataTable
- ExpansionTile & ExpansionPanel

WIDGETS IMPELEMENTING MATERIAL DESIGN GUIDELINES-2

- Input and Selections
- Dialogs, Alerts, and Panels
- Create project using Material Design guidelines

STATE MANAGEMENT

- GetX and Provider
- Shared Preferences for storing key-value data
- Introduction to Hive for local storage
- Working with local databases using Hive
- SQLite



Provider

REST API

- http package for API calls
- Dio package for API calls
- WebSockets for real-time communication
- Integrating REST API with Flutter
- FutureBuilder



FIREBASE

- Introduction
- What is JSON?
- How does Firebase Database work?
- Firebase authentication (Signup and Login to Flutter App)
- Configure Your App to use Firebase Services
- Configuring Firebase Authentication
- Firebase Database
- Create a User Profile Interface using Firebase

LOCATION AWARE APPS USING GPS AND GOOGLE MAP

- Introduction
- What is GPS and how does it work?
- Reading GPS location and location based services
- Nearby Places API
- Adding Google Maps to a Flutter app

SEAMLESS INTEGRATION

- Payment Gateway
- Messaging Gateway
- WhatsApp & SMS automation (allowed APIs)
- Social Sign in(Google, Facebook etc)

APP TESTING AND PUBLISHING

- Testing and Feedback for Your App
- Publishing Flutter Apps
- Publishing Android App on Google Play Store
- Publishing App to Amazon app store

MAIN PROJECTS

- Three advanced flutter applications