



Flutter Training Course Curriculum

STRUCTURE



Flutter Training Course Content

“Get comprehensive training in Flutter and make yourself stand out in the crowd.”

Course Objectives:

- Understand the fundamentals of the Flutter framework
- Incorporate widgets and state into your app
- Use Flutter's tools to enhance your development process
- Customize your app with Material Design, themes, assets, and more
- Make your app interactive with text input, gestures, and more
- Retrieve local and real-time data from the web

Course Description:

Developing for mobile platforms can be frustrating, and Flutter is Google’s solution to make mobile development better. This course will teach you the basics of Flutter, including building a UI, using animations, and creating a database app.

Flutter training course is designed to learn how to use Flutter to develop high-quality, interactive mobile applications both for iOS and Android devices. In this training course, you will learn how to how to code using Dart and build beautiful, fast, native-quality iOS and Android apps. Even if you have ZERO programming experience.

Whether you are a newbie in mobile app development, or experienced with other mobile app frameworks, you’ll enjoy the high-velocity development and quality apps that Flutter enables. The course is intended for Front End Web Developer, Full Stack Web Developer, Java Developer, or anyone who want to learn Flutter app development fundamentals.

Course Content:

Module 1: Introduction

- Introduction
- Importance of Flutter Introduction to Dart Writing Dart code
- Dart Pad
- Installing Dart SDK
- IntelliJ IDEA

Module 2: Dart Programming Syntax

- Introduction
- main () function
- Dart Variables
- Dart Data Types
- Input of Information to Dart Program
- Writing Comments
- Dart Conditional Operators
- If Statement
- If – Else Statement
- If...Else and Else...If... Statement
- If Else and Logical Operators
- For Loops

- While Loops
- Do-while Loops
- Break Statement
- Switch Case Statement

Module 3: Dart Functions & Object-Oriented Programming (OOP)

- Functions
- Function Structure
- Creating a Function
- Function Return Data Types
- Void Function
- Function Returning Expression
- Functions and Variable Scope
- Object-Oriented Programming (OOP)
- Objects and Classes
- Creating a Class
- Adding Methods to Classes
- Providing Constructors for Your Classes
- Class — Getters and Setters
- Class Inheritance
- Abstract Class
- Dart Project Structure and Dart Libraries

Module 4: All About Flutter

- Understanding Flutter
- Flutter Framework
- Android Studio
 - What is Android Studio?
 - Android Studio Software Prerequisite
 - Installing Android Studio
- Flutter SDK
- Installing and Configuring Flutter SDK
- Creating a New Flutter Project
- Setup an Android Virtual Device
- Run a Flutter App
- Installing Flutter on Mac
- Test Your Flutter App on iOS Phone with Windows O.S
- Android Studio Sugar and Spice
- Run your Apps on a Hardware Device (Physical Phone)
 - Run your Flutter App on Android Phone
 - Run your Flutter App on Android Phone
- Emulator Debug Mode
- Introduction to Flutter Widgets
- Creating a Flutter App Using Widgets
- What is a Material App widget?

Module 5: Flutter Widgets Fundamentals

- Scaffold Widget
- Image Widget
- Container Widget
- Column and Row Widgets
- Icon Widget
- Layouts in Flutter
- Card Widget
- App Icons for iOS and Android Apps
- Hot Reload and Hot Restart
- Stateful and Stateless Widgets
- Use a Custom Font

Module 6: Navigation and Routing

- Button Widget
- FloatingActionButton
- RaisedButton, FlatButton, and IconButton
- DropdownButton
- OutlineButton
- ButtonBar
- PopupMenuButton
- App Structure and Navigation
- Navigate to a New Screen and Back
- Navigate with Named Routes
- Send and Return Data Among Screens
- Animate a Widget Across Screens
- WebView Widget in Flutter

Module 7: Visual, Behavioral, and Motion-Rich Widgets Implementing

- Material Design Guidelines - Part 1
- Introduction
- BottomNavigatorBar Widget
- DefaultTabController, TabBar, and TabBarView Widgets
- ListTile Widget
- ListView Widget
- Drawer Widget
- DataTable Widget
- SelectableText Widget
- Stack Widget
- Material Design Guidelines - Part 2
- Input and Selections
- Text Field Widget.
- Checkbox Group and RadioButtonGroup Widgets
- Date Picker.
- Time Picker.
- Slider Widget.
- Switch Widget
- Dialogs, Alerts, and Panels

- Alert Dialog Widget
- Cupertino Alert Dialog Widget.
- Bottom Sheet.
- Modal Bottom Sheet
- Persistent Bottom Sheet.
- Expansion Panel Widget.
- Snack Bar Widget.

Module 8: Firebase

- Introduction
- What is the JSON?
- How does Firebase Database work?
- Firebase authentication (Signup and Login to Flutter App)
- Configure Your App to use Firebase Services
- Adding Firebase to your Android App
- Adding Firebase to your iOS App
- Configuring Firebase Authentication
- Login to an App Using Firebase User Accounts
- Logout Configuration
- Firebase Database
- Which database is right for your project?
- Real Time Database
- Cloud Fire store

Module 9: Location-Aware Apps: Using GPS and Google Maps

- Introduction
- What is GPS and how does it work?
- The Camera Position
- Adding Google Maps to a Flutter app
- Getting a Google API key
- Adding Google Maps Flutter plug-in as a dependency
- Adding your API key for your Android app
- Adding your API key for your iOS app
- Adding a Google Map on Your Flutter App Screen
- Adding a Google Map Marker
- Google Map Types
- Moving the Camera (Camera Animation)
- Capturing an App User's Location for iOS and Android Apps.
- Getting a Google API key
- Creating an App Interface
- Configuring your App to Use Your API Key
- Adding a Google Map on your Flutter App Screen
- Adding a Google Map Marker
- Flutter TM Application Development
- Capturing Users' Location
- Configuring User App's Permission

Module 10: App Testing & Publishing

- Testing and Feedback for Your App
- Setting up a Test Environment
- Usability Testing by Participants
- Starting your Test Session
- Analyzing your Test
- Publishing Flutter Apps
- Publishing Android App on Google Play Store
- Publishing iOS app on Apple Store

Module 11: Placement Guide

- What is an Interview?
- Tips to clear an Interview
- Common Interview questions and answers
- Flutter Interview Questions and Answers
- Resume Building Guide
- Attempt for Flutter Global Certification Exam if any
- Start applying for Jobs