

Specialised Programme on Mobile App Development- French (2 Weeks)

Pre-requisite

- Knowledge of programming language preferably dart language

Aim

The aim of this program is to equip participants with comprehensive knowledge and practical skills in Flutter and Dart for developing modern, high-performance, cross-platform mobile applications. The course focuses on building a strong foundation in mobile app development, enabling learners to design intuitive user interfaces, manage application state efficiently, integrate real-time data using APIs and deploy fully functional mobile applications. By the end of the program, participants will be confident in developing industry ready Flutter applications aligned with current technological and professional standards.

Objectives

- Understand Flutter framework and Dart programming basics
- Design responsive and attractive mobile user interfaces
- Implement navigation, forms and state management
- Work with APIs, local storage and app data
- Build and deploy a complete Flutter mobile application

Course Contents

Introduction of Mobile App Development

Introduction of Mobile platforms for App Development

Introduction to Flutter & Dart

- What is Flutter and why use it?
- Flutter architecture overview
- Installing Flutter & IDE setup
- Introduction to Dart language
- Dart basics: variables, data types, operators

Dart Programming Fundamentals

- Control statements (if, switch, loops)
- Functions and parameters
- OOP concepts in Dart
- Classes, objects, constructors
- Lists, Maps and collections

Flutter Basics & Project Structure

- Flutter project structure
- Understanding widgets
- Stateless vs Stateful widgets
- Hot reload & hot restart
- Creating first Flutter app

UI Design & Layouts

- Material & Cupertino widgets
- Layout widgets: Row, Column, Stack
- Container, Padding, Margin
- Scaffold, AppBar, Text, Button widgets
- Responsive UI basics

Navigation & User Input

- Screen navigation (Navigator)
- Passing data between screens
- Forms & validation
- TextField, Buttons, Dropdowns
- SnackBar, AlertDialog

Lists & Data Handling

- ListView & GridView
- Custom list items
- JSON parsing
- Working with local data
- Model classes

API Integration

- REST API concepts
- HTTP package usage
- Fetching & displaying API data
- Error handling

App Deployment & Mini Project

- App testing & debugging
- Building APK/IPA
- Publishing overview (Play Store)
- Mini project development
 - Course recap & career guidance