

Syllabus - Mobile application development (Flutter)

Program Highlights

- Learn tools and techniques used in the industry—Git, jira, confluence, releasing applications to the playstore, coding standards, best practises followed by the industry.
- Faculty with industry experience
- It covers every aspect of mobile application development-UI, API, connecting to Firebase Learn by doing: Assignments for practise
- Step-by-step approach Students develop different projects like Whatsapp clones, todo app and an e-commerce application.

Industry Project

At the end of the course, all the students will complete an e-commerce application and release it to the playstore. Students will individually do an industry-standard project along with the course.

The following are the features of the e-commerce project:

- Administrators can manage the whole application, like approve or block resellers, remove customers if required, etc.
- Registration for customers and resellers.
- Login for customers and resellers
- Change password with OTP verification
- Update profile
- Resellers can add, modify, or delete products.
- Customers can search for products using different criteria-name of the product, category etc.
- A customer can buy and return the product.
- Resellers and admin will be able to pull different types of reports.

Students will be able to work with companies that develop applications like:

- ERP application
- Accounting software
- Social media application
- Hotel booking application
- Train/Bus/Flight booking application/ Ticket reservation
- Job portals
- E commerce
- Matrimony application

- Learning Management System
- Hospital Information System
- College/School management system
- Doctor Booking
- Retail shop management
- Library Management System
- Internet banking
- Photo/Video sharing platforms
- Video conferencing application
- Content management system
- Mobile applications like Forums, chat, email, search engines etc.

And many more...

Designations

- Junior Software Engineer
- Software Engineer
- Flutter developer
- Mobile application developer

Topics covered:

Dart programming, OOP concept in dart, asynchronous programming, styles and assets, model API, very good CLI, using firebase with flutter, state management with bloc, channel communication in flutter, release application to playstore, razor pay integration, testing flutter application, jira, confluence,

Learning path:

- Creating different types of documents
Word, spreadsheet, slides
- Basic concepts in computer science
 1. Architecture
 2. Programming
 3. Computer networks
- Tools and techniques
 1. Using IDE effectively,
 2. Git
 3. Jira
 4. Confluence
 5. Coding Standards

Certifications

Certification by Oray Education, London UK

- Dart programming
 1. Basic programming
 2. OOP concept
 3. Exception handling
 4. Debugging
 5. Asynchronous programming - futures, async, await, streams
- UI development
 1. Styles and assets, fonts
 2. Model API
 3. Media query
- Firebase with flutter
 1. Introduction to firebase
 2. Firebase database and authentication
 3. Cloud messaging
- State management
 1. Introduction to bloc
 2. Bloc architecture
 3. Bloc testing
 4. Bloc architecture
- Useful packages
 1. Very good analysis
 2. Shared preferences
 3. Getx
 4. Animation
 5. Screenutil
 6. Ling
 7. Font awesome
 8. Syncfusion
 9. Url launcher
 10. Package info
- Advanced topics
 1. Channel communication
 2. Application release to playstore
 3. Voice recorder
 4. Razorpay integration
- Testing
 1. Integration testing
 2. Unit testing
 3. Widget testing

Overview

The goal of CS International Certified-Mobile App Developer is to transform you into a professional mobile app developer. You'll come to understand coding logic using While using popular languages and frameworks like Dart and Flutter, you will learn how to think like a programmer by building software from the ground up.

The training we provide for Flutter, which introduces developers to the benefits and fundamentals of Flutter, allows them to use this cross-platform mobile development framework to develop their own attractive, natively built apps. You will learn how to install the Flutter SDK and the tools required to develop and test Android apps. This course demonstrates how to set up Android Studio and VS Code to operate flawlessly with Flutter.

Program structure

Sprint 1: Introduction flutter:

Jira: Software development methodologies, agile development,scrum, sprint, creating account in jira, creating issues in jira, spring planning, roadmap.

Introduction to flutter:

What is flutter, featuresof flutter, flutter installation and configuration, genymotion, file structure of flutter project, stateful and stateless widgets, running flutter application.

Confluence:

Page, space, page tree, jira, bitbucket,using confluence.

Sprint 2: Dart programming:

Introduction to dart: Using dart pad, data types, variables, loops, decision making, functions, OOP concept in dart, getters and setters, exception handling and debugging.

Asynchronous programming: Asynchronous and synchronous operations, future, async, await, streams, listening to streams, broadcast streams, manipulating streams.

Sprint 3: More about flutter:

Styles and assets: Custom fonts, assets in flutter, media query, Null safety

Model API data in flutter: Creating model and using it.

Whatsapp clone: Home page, chat page, chat details screen, camera.

Version control and very good CLI: git, using very_good_cli.

Sprint 4: Firebase:

Introduction to firebase: What is firebase, build, release and monitor, engage.

Firestore with flutter: Add firestore to flutter application, register app with firestore, firestore database and authentication, firestore cloud messaging, notification handling, using firestore storage with flutter.

Sprint 5: State management with Bloc:

Introduction to Bloc, cubit, Bloc provider, Bloc builder, Bloc listener & Bloc consumer, e-commerce app implementation using Bloc, Bloc testing, Bloc debugging.

Sprint 6: Useful package familiarization:

Screen util, lint, font awesome, Syncfusion, Url_launcher, package_info, very_good_analysis, Shared_preferences, Http (get, post, put, patch, delete), getx, animations

Sprint 7: Advanced topics:

Channel communication in flutter, application release to playstore, voice recorder app, razorpay integration.

Sprint 8: Testing:

Integration testing, running integration test, code refactoring, unit testing, combine multiple tests in group, mockito, widget testing.