

App Development (iOS + Android)

A. Mobile App Basics

1. **App Architecture**
 - Native vs Hybrid
 - MVC, MVVM
 2. **Development Tools**
 - Flutter setup
 - Android Studio & Xcode basics
 3. **UI/UX Principles**
 - Mobile design patterns
 - Navigation logic
- Output:** Basic multi-screen UI layout

B. UI Development (Flutter / Native)

1. **Widgets & Layouts**
 - Container, Row, Column
 - ListView, GridView
 2. **Forms & Validation**
 - Input fields
 - Error handling
 3. **Navigation System**
 - Multi-page navigation
 - Route management
- Output:** Multi-screen functional UI app

C. API Integration

1. **REST API Basics**
 - GET/POST/PUT/DELETE
 - Status codes
 2. **JSON Data Handling**
 - Parsing
 - Serialization
 3. **State Management**
 - Provider / Bloc / Riverpod
- Output:** Live API-connected mobile application

D. Authentication System

1. **Firebase Authentication**
 - Email login
 - OTP login
 2. **Session Management**
 - Tokens
 - Secure storage
 3. **User Flow Design**
 - Login
 - Signup
 - Forgot Password
- Output:** Login + Signup module

E. Advanced Mobile Features

1. **Maps & Location**
 - Google Maps
 - Live location
 2. **Payments Integration**
 - Razorpay / Stripe
 - Payment success flow
 3. **Push Notifications**
 - Firebase Cloud Messaging
 - Notification actions
- Output:** Feature-rich mobile app (payments + maps + notifications)
-