



JAVA & ANDROID APPS

Java & Android App Development

Learn Java programming and Android app development through hands-on projects, UI design, APIs, Firebase integration, and complete real-world mobile applications.

■ Java Programming Build strong coding foundations	■ Android Apps Create real mobile applications
■ UI Design Interactive app interfaces	■ Final Capstone Complete Android app showcase

Curriculum Roadmap

1. Java Foundations

- Variables & Data Types
- Operators
- Console Calculator

2. Decision Making & Loops

- If-Else
- Loops
- Number Guessing Game

3. Functions & Code Structure

- Methods
- Parameters
- Utility Program

4. Arrays & Data Handling

- Arrays
- Searching & Sorting
- Data Analyzer

5. Object-Oriented Programming

- Classes & Objects
- Constructors
- Student System

6. Advanced OOP

- Inheritance
- Polymorphism
- Library Management

7. Android Introduction

- Android Studio
- App Structure
- First App

8. UI Design in Android

- XML Layouts
- Buttons & Inputs
- Profile App

9. App Logic & Interaction

- Event Handling
- Validation
- Calculator App

10. Navigation & Multi-Screen Apps

- Intents
- Passing Data
- Multi-screen App

11. Lists & Dynamic UI

- RecyclerView
- ArrayList
- To-do App

12. Advanced Features

- Conditional Logic
- Quiz App

13. API Integration

- JSON
- APIs
- Weather/Joke App

14. Firebase Integration

- Authentication
- CRUD Database
- Cloud App

15. Final Capstone Project

- Complete Android App
- Testing & Debugging
- Showcase

Learning Outcomes

- Build strong Java programming skills
- Develop interactive Android applications
- Learn UI/UX fundamentals for mobile apps
- Integrate APIs and cloud databases

- Create complete production-style Android apps

Code • Design • Build • Launch