### **Frontend Development**

- Frontend Developer
- What They Do: Builds user interfaces (webpages, buttons, layouts)
- What to Learn: HTML, CSS, JavaScript, React/Vue/Angular, Git, Responsive Design, Figma (basics)
- UI/UX Designer
- What They Do: Designs user experience and interface
- What to Learn: Figma, Adobe XD, Design Principles, User Research, Prototyping

## **Backend Development**

- Backend Developer
- What They Do: Manages server logic, databases, APIs
- What to Learn: Python, Java, Node.js, Express, SQL, MongoDB, REST APIs, Authentication, Git
- Database Administrator (DBA)
- What They Do: Manages and optimizes databases
- What to Learn: SQL, Database Design, MySQL/PostgreSQL, Backup & Recovery, Indexing

## **Full-Stack Development**

- Full-Stack Developer
- What They Do: Works on both frontend and backend
- What to Learn: Frontend (React, HTML/CSS/JS) + Backend (Node.js/Python) + Database + Git + APIs

#### **Mobile App Development**

- Android Developer
- What They Do: Builds Android apps
- What to Learn: Java, Kotlin, Android Studio, XML UI, Firebase
- iOS Developer
- What They Do: Builds iPhone apps
- What to Learn: Swift, Xcode, UIKit/SwiftUI, Firebase
- Cross-platform Developer
- What They Do: Builds apps for both iOS and Android
- What to Learn: Flutter (Dart), React Native, Git, API Integration

#### **DevOps / Cloud Development**

- DevOps Engineer

- What They Do: Automates deployments, maintains infrastructure
- What to Learn: Linux, Bash, Docker, Kubernetes, Jenkins, AWS/Azure, CI/CD, Monitoring
- Cloud Engineer
- What They Do: Manages cloud-based systems
- What to Learn: AWS, GCP, Azure, Terraform, Networking Basics, Cloud Security

## **Software Testing / QA**

- Manual Tester
- What They Do: Tests apps manually for bugs
- What to Learn: Test Cases, Test Planning, Bug Reporting, SDLC Basics
- Automation Tester
- What They Do: Writes scripts to test apps
- What to Learn: Selenium, Java/Python, TestNG, JUnit, CI/CD, Git

# **Business/Project Side**

- Business Analyst
- What They Do: Gathers and explains requirements
- What to Learn: Flowcharts, Requirements Docs, Agile, Jira, Communication Skills
- Project Manager
- What They Do: Oversees the whole development process
- What to Learn: Agile/Scrum, Jira, Communication, Leadership, Scheduling Tools