Development Roadmap

Phase 1: Programming Fundamentals (6-8 Weeks)

- **Choose a Language (e.g., Python, Java, JavaScript, C#):**
    - Basic Syntax: Variables, data types, operators, control flow.
    - Object-Oriented Programming (OOP) Concepts: Classes, objects, inheritance, polymorphism.
    - Data Structures and Algorithms: Arrays, linked lists, trees, graphs, searching, sorting.
- **Version Control (Git):**
    - Git Basics: Repository creation, committing changes, branching, merging.
    - Collaboration with Git: Pull requests, code reviews, resolving conflicts.

Phase 2: Frameworks and Tools (6-8 Weeks)

- **Web Development (Example):**
    - Frontend Framework (e.g., React, Angular, Vue.js): Building user interfaces.
    - Backend Framework (e.g., Node.js, Spring Boot, Django): Building server-side logic and APIs.
    - Databases (e.g., SQL: MySQL, PostgreSQL; NoSQL: MongoDB): Storing and retrieving data.
- **Mobile Development (Example):**
    - Native (e.g., Swift for iOS, Kotlin for Android): Building platform-specific apps.
    - Cross-Platform (e.g., React Native, Flutter): Building apps for multiple platforms.
- **Backend Development (Example):**
    - Backend Framework (e.g., Node.js, Spring Boot, Django, Ruby on Rails).
    - Databases (e.g., SQL, NoSQL).
    - API Design (RESTful APIs).

Phase 3: Projects and Specialization (4-6 Weeks)

- **Build Projects:** Apply your knowledge to create real-world applications. Start with simple projects and gradually increase complexity.
- **Testing:** Learn different testing methodologies (unit testing, integration testing, etc.).
- **Deployment:** Learn how to deploy your applications to different environments.
- **Specialization:** Explore areas of interest within your chosen track (e.g., security, performance optimization, cloud development).