# Training & Development Plan for Software Developers (Frontend/Backend)

**1. Identify Training Needs**

**Skills and Competencies Required:**

* **Frontend Developers:**
  + Proficiency in HTML, CSS, JavaScript, and modern frameworks like React, Angular, or Vue.js.
  + Understanding of responsive design and cross-browser compatibility.
  + Familiarity with version control systems like Git.
  + Knowledge of frontend testing frameworks like Jest or Mocha.
* **Backend Developers:**
  + Proficiency in backend programming languages such as Python, Java, or Node.js.
  + Understanding of database management systems (SQL and NoSQL).
  + Experience with APIs (RESTful and GraphQL).
  + Knowledge of server architecture and cloud services (e.g., AWS, Azure).

**Identified Training Needs:**

* Technical skills gap in specific frameworks, tools, and languages.
* Advanced problem-solving techniques for debugging and optimizing code.
* Soft skills for effective collaboration and communication within teams.
* Exposure to Agile and DevOps methodologies.

**2. Detailed Training Program**

**Objectives:**

* Equip developers with the latest technologies and best practices.
* Improve code quality and efficiency through advanced tools and techniques.
* Foster teamwork and communication skills to enhance collaboration.
* Ensure familiarity with Agile workflows and DevOps integration.

**Schedule:**

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| Day | Topic | Mode | Duration |
| Day 1 | Orientation & Role Expectations | In-person/Virtual | 2 hours |
| Day 2 | Advanced Frontend/Backend Fundamentals | Online Workshop | 4 hours |
| Day 3 | Framework-Specific Training (React/Node.js) | Instructor-led | 6 hours |
| Day 4 | API Development & Integration Techniques | Hands-on Session | 4 hours |
| Day 5 | Debugging and Optimization Best Practices | Lab Exercise | 4 hours |
| Day 6 | Agile and DevOps Overview | Seminar | 3 hours |
| Day 7 | Soft Skills for Developers | Interactive Workshop | 3 hours |
| Day 8 | Capstone Project & Feedback | Team Project | 6 hours |

**Training Material:**

* PowerPoint Presentation: "Advanced Techniques for Frontend & Backend Developers"
  + **Slides Overview:**
    1. Welcome and Objectives
    2. Key Technologies in Frontend/Backend Development
    3. Advanced Coding Practices
    4. Debugging Techniques
    5. Agile & DevOps Integration
    6. Team Collaboration Tips
    7. Capstone Project Guidelines

**Assessment Methods:**

* Quizzes after each module to test theoretical knowledge.
* Hands-on coding exercises to evaluate practical application.
* Final project reviewed by peers and instructors.

**Follow-Up Plan:**

* Regular feedback sessions to identify ongoing development needs.
* Access to an online learning portal with updated resources.
* Scheduled 1-on-1 mentoring sessions every month for the first 6 months.