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Software Developer Competencies



This document describes, at a very high level, the competencies that most organizations would want their junior developers to have, at a minimum, when they hire them.

Some of the competencies, particularly the ones pertaining to particular technologies, languages or frameworks, are somewhat optional as the concepts are the most important.

Competency Scale

- 0 Needs Training and Direction
- 1 Needs Ongoing Support
- 2 Needs Occasional Support
- 3 Completes Task Independently -----> **Production Ready**
- 4 Can Effectively pass on this knowledge and can initiate optimizations



Competencies by Group

Soft Skills

- Communication (Written and Verbal)
- Job Searching (Resumes, Interviews and LinkedIn)
- Continuous Learning
- Cognitive Skills, Reasoning and Problem Solving
- Behavioral Attributes and Skills
- Teamwork
- Emotional Intelligence (EQ)

Languages and Frameworks

- HTML5
- CSS / SCSS
- Javascript
- React Framework
- Python
- Flask Framework
- JSON
- XML

Software Development Core Concepts

Tools, Technologies and Processes

- Agile Development
- Software Development Life Cycle
- Documentation: Understanding and Writing
- Product Management Fundamentals
- Development Tools (IDEs, Debugging Tools)
- Task/Sprint Management
- Communication Tools
- UI/UX Basics
- Linux Command line
- Git Usage and Tools

- Computer Anatomy
- Languages Types (Compiled, Interpreted, Hybrid, Scripting)
- Data Types
- Variables and Variable scope
- Functions
- Boolean Logic
- Conditionals
- Loops
- Algorithms
- Data Structures
- Working with Files
- Exception Handling
- Quality Assurance (QA) and Testing
- Object-Oriented Programming
- Multi-threaded applications
- Recursion
- Networking Basics, Protocols and Tools
- Databases - Usage and SQL
- Connecting to and Building API