

IT Junior Coder Competencies

Required Competencies

Software Development Best Practices

Understands software assurance best practices and their use in software development.

Core Coding Languages

Develops simple frontend, backend and/or mobile applications utilizing core coding languages (e.g., Java, C#, Objective C, JavaScript, Swift) on a development platform; integrates data storage (including SQL), libraries, methods, interfaces, and objects and uses code analysis and debugging techniques; web developers need to be able to integrate HTML, CSS, web services (including REST), and a web framework (such as Angular or Spring MVC) into applications.

Web Development

Understands commonly used web development languages such as AJAX, XML, HTML 5, and JavaScript.

General Database

Uses SQL basics (e.g., selecting, inserting, updating, deleting records), at least one database management software application, and database fundamentals such as normalization, schemas, and relationships.

Software Development Tools

Utilizes an IDE (Integrated Development Environment) (e.g., Visual Studio) and a source control system such as TFS or GitLab.

Design and Implementation

Assists customers in the gathering of requirements, and designs, implements, and supports simple technology solutions to existing business problems.

Optional Competencies: Any one of the following competencies are required, the rest are optional.

Software Development: Web Front End

Leverages user experience and responsive design, web mobility, communication tools (such as AJAX), web services (including REST), a web framework, version control, and a development life cycle methodology (such as Agile).

Software Development: Back End

Leverages object-oriented techniques, web mobility, backend processes, communication tools, application programming interfaces (APIs), web services (including REST), a web framework, version control, and a development life cycle methodology (such as Agile).

Software Development: Mobile

Leverages object-oriented techniques, user experience, web mobility, backend processes, communication tools, web services (including REST), a web framework, version control, and a development life cycle methodology (such as Agile).

Optional Competencies

Scripting

Develops and uses common scripting languages, such as PERL, Python, or shell scripts.