

Application Development Competencies

Level 1

Design Application

- Knowledge of the organization's design principles used for application development
- Knowledge of the process to review and provide input to user documentation

Develop Application

- Knowledge of coding languages used by the organization
- Knowledge of the application development process including coding, documentation and testing
- Knowledge of how to review of an application's code as part of a peer group
- Knowledge of how to revise and adapt existing code to meet emerging requirements

Test and Validate Applications

- Knowledge of the process for developing a test plan for an application
- Ability to perform validation testing on new applications
- Knowledge of how to validate user documentation
- Knowledge of how to interpret test results and make recommendations
- Knowledge of how to support user acceptance testing

Implement, Support, and Maintain Applications

- Knowledge of how to develop a release plan for an application
- Knowledge of how to develop a user training plan for an application
- Ability to decompose software application systems and to develop functional decomposition diagrams
- Knowledge of how to transition an application to a new system
- Knowledge of how to maintain and support applications
- Knowledge of how to evaluate, implement and document application enhancements
- Knowledge of how to perform system maintenance for application security
- Knowledge of common information security risks and threats

Computer Systems and Software

- Knowledge of the organizations helpdesk and support center operations
- Knowledge of safety rules for operating electronic and computer equipments
- Ability to establish and maintain user accounts and access privileges

- Ability to install, configure and repair basic computer hardware and software
- Ability to install and configure personal computer operating system software
- Basic knowledge of network hardware and software maintenance and optimization procedures

Level 2

Perform Analysis for Application Development

- Knowledge of how to gather data identifying customer requirements
- Knowledge of how to establish measurable performance requirements
- Knowledge of security requirements for an application
- Knowledge of how to select design tools for an application
- Knowledge of model and prototype development for an application design
- Knowledge of how to validate design schemes and models
- Knowledge how to develop detailed design specifications for an application
- Knowledge of how to conduct a high level feasibility study for a proposed application

Design Application

- Knowledge of how to create a detailed design for an application
- Knowledge of the system architectures and supporting technologies used by the organization
- Knowledge of how to identify system platform, components and dependencies effects on application design
- Knowledge of how to design and implement a data model for an application
- Ability to effectively participate in a design review
- Knowledge of how to determine maintenance requirements for an application
- Ability to review and provide input to user documentation
- Knowledge of how security requirements are incorporated into an application

Develop Applications

- Ability to write and document the code used by the organization for application development
- Ability to perform unit testing and rework code
- Ability to integrate application subsystems
- Ability to conduct a peer review of an application's code
- Ability to revise and adapt existing code to meet emerging requirements

- Ability to create and test prototypes as part of the development process

Test and Validate Applications

- Ability to develop test plans for an application
- Ability to validate user documentation
- Ability to interpret test results and make recommendations
- Ability to support user acceptance testing
- Ability to effectively document test results

Implement, Support, and Maintain Applications

- Ability to develop a release plan for an application
- Ability to train support staff in application support and maintenance
- Ability to develop a user training plan for an application
- Ability to transition an application to a new system
- Ability to maintain and support applications
- Ability to evaluate, implement and document application enhancements
- Ability to perform system maintenance for application security
- Ability to install, configure and maintain workstation and network firewalls

Computer Systems and Software

- Knowledge of latest IT technologies and how they may apply
- Ability to configure network devices software
- Ability to install, configure and maintain anti-virus software

Level 3

Perform Analysis for Application Development

- Ability to gather data identifying customer requirements
- Ability to define system and software requirements
- Ability to establish measurable performance requirements for an application
- Ability to develop high-level systems and functional specifications
- Ability to determine security requirements for an application
- Ability to effectively select design tools for an application
- Ability to develop models and prototypes for an application design
- Ability to validate design schemes and models

- Ability to develop detailed design specifications for an application

Design Application

- Ability to create a detailed design for an application
- Ability to identify system platform, components and dependencies effects on application design
- Ability to design and implement a data model for an application
- Ability to conduct a design review
- Ability to determine maintenance requirements for an application
- Ability to independently review and provide input to user documentation
- Ability to incorporate security requirement into an application

Develop Application

- Ability to write and document the code used by the organization for application development
- Ability to perform unit testing and rework code
- Ability to integrate application subsystems
- Ability to conduct a peer review of an application's code
- Ability to revise and adapt existing code to meet emerging requirements
- Ability to create and test prototypes as part of the development process

Test and Validate Applications

- Ability to develop test plans for an application
- Ability to validate user documentation
- Ability to interpret test results and make recommendations
- Ability to support user acceptance testing

Implement, Support, and Maintain Applications

- Ability to develop a release plan for an application
- Ability to develop a user training plan for an application
- Ability to transition an application to a new system
- Ability to evaluate, implement and document application enhancements

Computer Systems and Software

- Ability to evaluate new or existing technologies for potential use by the organization's

Knowledge of serious security risks and threats to IT networks