

Professional Development Ladder - Developer

Competencies – Technical

- good understanding of OOD and SQL
- development and maintenance coding
- data base development
- quality assurance and testing
- follow software development methodology, standards and conventions
- version and change control
- write documentation

Recommended Reading:

- Professional Software Development by Steve McConnell
- Code Complete by Steve McConnell

Professional Development Ladder – Senior Developer Level I

Competencies – Technical

- good understanding of OOD and SQL
- development and maintenance coding
- data base development
- quality assurance and testing
- follow software development methodology, standards and conventions
- version and change control
- write documentation
- **act as project technical lead**
- act as backup project technical lead
- comply with project management methodology
- direct and mentor junior developers
- requirements definition
- product component and sub-component design
- estimation and scheduling

Competencies – Leadership

- Developing Others - Effectively improves others' abilities to complete tasks and contribute.
- Team Building - Develops synergy by balancing attention to people and task.
- Leadership - Motivates/enables people to achieve good results with flexible style and vision.
- Technical Champion - Leads introduction and/or application of technologies, processes, and initiatives.

Recommended Reading:

Rapid Development by Steve McConnell

Professional Development Ladder – Senior Developer Level II

Competencies – Technical

- good understanding of OOD and SQL
- development and maintenance coding
- data base development
- quality assurance and testing
- follow software development methodology, standards and conventions
- version and change control
- write documentation
- **act as project lead**
- act as backup project lead
- act as project technical lead
- act as backup project technical lead
- comply with project management methodology
- direct and mentor junior developers
- requirements definition
- product component and sub-component design
- estimation and scheduling

Competencies – Leadership

- Developing Others - Effectively improves others' abilities to complete tasks and contribute.
- Team Building - Develops synergy by balancing attention to people and task.
- Leadership - Motivates/enables people to achieve good results with flexible style and vision.
- Technical Champion - Leads introduction and/or application of technologies, processes, and initiatives.

Recommended Reading:

- Leading Software Development Projects by Richard Whitehead
- The Mythical Man Month by Frederick P. Brooks, Jr. (chapter two only)
- Quality Software Project Management by Futrell, Shafer, & Shafer (select chapters)

Professional Development Ladder – Lead Developer

Competencies – Technical

- good understanding of OOD and SQL
- development and maintenance coding
- data base development
- quality assurance and testing
- follow software development methodology, standards and conventions
- version and change control
- write documentation
- **act as project lead**
- act as backup project lead

- act as project technical lead
- act as backup project technical lead
- comply with project management methodology
- direct and mentor junior developers
- requirements definition
- product component and sub-component design
- estimation and scheduling

Competencies – Leadership

- Developing Others - Effectively improves others' abilities to complete tasks and contribute.
- Team Building - Develops synergy by balancing attention to people and task.
- Leadership - Motivates/enables people to achieve good results with flexible style and vision.
- Technical Champion - Leads introduction and/or application of technologies, processes, and initiatives.

Competencies – Administration

- Maintains high degree of departmental moral
- Maintains high degree of departmental productivity
- Coordinate, schedule and tracks all departmental projects
- Manage all aspects of departmental supervision and human resources

Recommended Reading:

Department leaders need to know how to work with people as much as they need to know their technical skills. Research has shown that leadership can be learned through education, training and experience.

- What Leaders Really Do – John P. Kotter
- Small Unit Leadership – Col. Dandridge M. Malone (select chapters)
- The First 90 Days – Michael Watkins
- Difficult Conversations – Douglas Stone et al (select chapters)
- Sacred Hoops – Phil Jackson (Coach, Chicago Bulls basketball team)

Recommended movies:

Movies are a standard method of leadership training programs in corporations, the military and educational institutions. After reading the above books, watch the following movies for examples of how leaders deal with challenges of maintaining morale and standards, building a team, and communicating vision, information and direction:

- Coach Carter
- Master & Commander – The Far Side of The World
- Saving Private Ryan

The following are required at EACH level

Competencies – Task

- Results Orientation - Commits to and achieves excellent and timely results.
- Continuous Learning - Seeks information and develops skills quickly to apply to task at hand and future.
- Initiative - Independently sees and does what needs to be, or could be done.
- Problem Solving - Analyzes situations and identifies, prevents and/or solves problems.
- Attention To Quality And Standards - Acquires and applies understanding of corporate and customer requirements.
- Technical Leverage - Effective application of technical abilities.
- Budget/Schedule Sensitivity - Meets commitments and negotiates change effectively.
- Innovation - Makes innovative application of existing processes or products.

Competencies - Personal Effectiveness

- Effective Communications - Demonstrates impact and influence through all types of communication.
- Customer Service Orientation - Actively listens, achieves understanding and responds with an attitude of service.
- Teamwork - Contributes to team becoming strong performing unit.
- Self-Management - Handles challenging situations with awareness of own strengths AND limitations.
- Time Management - Effectively organizes, prioritizes work and achieves closure.
- Flexibility - Works effectively in an ever-changing environment.
- Organizational Awareness - Demonstrates understanding business dynamics of company, partners and customers.
- Integrity - Demonstrates honesty, dependability, respect, loyalty and responsibility.