Project Team Training & Qualification Plan

For Database Projects

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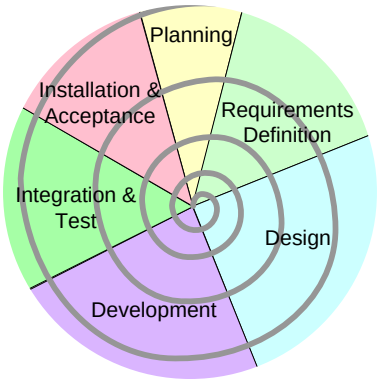

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GLOSSARY OF PROJECT-SPECIFIC TERMS	
Glossary of Software Engineering Terms	A standard glossary of software engineering terms is maintained online.

INTRODUCTION

This plan defines the training and qualification requirements for Shell Method project team members in support of database application development processes and activities.

BACKGROUND

The software development process for the current project is based on a six-phase iterative lifecycle supporting project management, configuration management, requirements management, quality assurance, verification and validation. The process supports an integrated team of software developers working in concert with subject matter experts and other members of the end-user community impacted by the application. Certain processes, such as source version control, are executed exclusively by the developers. Other processes, such as specification development, require the participation of end users.

SCOPE

The training and qualification requirements described in this plan cover the execution of Shell Method lifecycle management processes and the development of project deliverables by project team members. Team members perform one of six roles:

1. Project Executive Sponsor
2. Primary End-User Representative (PER)
3. Primary Developer Representative (PDR)
4. Quality Assurance Reviewer (QAR)
5. Development team member
6. End-user community member

These roles, and their training and qualification requirements, are described in the following chapters.

OBJECTIVES

This training and qualification plan supports five primary objectives:

1. Identify the base activities for each of the project team roles.
2. Describe the responsibilities associated with each role.
3. Define the training requirements for each role.
4. Describe the qualification requirements for each role.
5. Minimize training overhead by tailoring training requirements to the impact each role has on the development effort. For example, low-impact roles such as end-user community member have minimal training requirements. High-impact roles, such as PDR, have significant requirements to understand the process guidance, master-level documentation, and stage deliverables.

ROLES, RESPONSIBILITIES, TRAINING, & QUALIFICATION

The six roles of the project team are performed by client management, business process practitioners, and developers:

Category	Role
Client Management	Project Executive Sponsor
Business Process Practitioners	Primary End-user Representative
	End-User Community Members
Developers	Primary Developer Representative
	Quality Assurance Reviewer
	Development Team Members

PROJECT EXECUTIVE SPONSOR

The executive sponsor provides top-level authorization and funding for a project and bears ultimate responsibility for the success of the development effort. Generally, the sponsor is not a software development practitioner, but is a manager associated with or supervising the activities of the business process under automation.

RESPONSIBILITIES

The sponsor provides funding and authorizes the work of the project. The sponsor is responsible for monitoring project progress, risks, and adherence to schedule, primarily through participation in Configuration Control Board (CCB) meetings and stage exit meetings.

TRAINING REQUIREMENTS

The sponsor is required to have a high-level understanding of the SDLC for this project. This is accomplished at the beginning of the project via:

1. A Lifecycle Overview presentation from the PDR.
2. An optional review of the SDLC document.

QUALIFICATION

The sponsor is considered to be qualified after receiving the Lifecycle Overview presentation from the PDR, either separately or during the informal iteration process of the project planning stage. An email confirmation serves as objective evidence of qualification for the Project Executive Sponsor.

PRIMARY END-USER REPRESENTATIVE

The PER acts as the primary point of contact and principal approver for the end-user community. In essence, the PER acts as the focal point for the end user community. On large projects, multiple PERs may exist, each dedicated to representing the end user community for one or more components or subsystems. In this case, a lead PER is assigned to coordinate activities with the lead PDR.

RESPONSIBILITIES

The PER works directly with the Primary Developer Representative to identify subject matter experts, coordinate meetings, conduct reviews, and track identified issues, consolidating and coordinating the responses of all end-users into a cohesive set of communications.

TRAINING REQUIREMENTS

The PER is required to have a high-level understanding of the SDLC for this project, as well as specific knowledge of the deliverables and end-user review criteria for applicable deliverable classes. This is accomplished via:

1. Receiving the Lifecycle Overview presentation from the PDR, generally during the informal iteration process of the project planning stage.
2. Reviewing the documents available on the Shell Method example project Web site.
3. Reading the SDLC and Software Quality Assurance Plan (SQAP) documents.

QUALIFICATION

The PER is considered to be qualified after receiving the Lifecycle Overview presentation and confirming their completion of the reading requirements with the PDR. An email confirmation of completion serves as objective evidence of qualification for the PER.

END-USER COMMUNITY MEMBERS

Members of the end-user community that participate in the design and development effort are critical to the success of the project. At the same time, these end users are not normally funded to dedicate significant amounts of time to the development effort, and so should not be burdened with excessive training requirements.

RESPONSIBILITIES

End-users serve as subject matter experts for component requirements, review certain deliverables for accuracy and perform end-user testing of the delivered product. Some end-users may be involved only with specific stages of the lifecycle, and do not necessarily need to understand the entire lifecycle.

TRAINING REQUIREMENTS

End-users are required to have a basic understanding of the processes and stage deliverables for the stages in which they participate. This is accomplished via attendance at appropriate stage kickoff meetings.

QUALIFICATION

End-users are considered to be qualified for a particular stage when they have attended the corresponding stage kickoff meeting, which includes the stage kickoff presentation as given by the PDR. Attendance records at appropriate stage kickoff meetings serve as objective evidence of qualification for end-users.

PRIMARY DEVELOPER REPRESENTATIVE (PDR)

The PDR acts as the primary point of contact and principal approver for the development community and is the focal point for the development team. On large projects, multiple PDRs may exist, each dedicated to representing the development team for one or more components or subsystems. In this case, a lead PDR is assigned to coordinate activities with the lead PER.

RESPONSIBILITIES

The PDR works directly with the PER to coordinate developer responses to requirements and issues generated by the end-user community. The PDR manages the entire lifecycle, either for a specific component or for the entire project. The PDR is responsible for:

- Ensuring that the project or component development effort follows the project SDLC as defined in the SPMP.
- Ensuring that all stage deliverables are produced in a timely manner.
- Ensuring that appropriate reviewers conduct end-user, technical, and quality assurance reviews in a timely manner.
- Ensuring the maintenance of project metrics as identified in the SPMP.
- Reporting the status of the project or component to the executive sponsor and appropriate management.

TRAINING REQUIREMENTS

The PDR is required to have comprehensive knowledge of the SDLC and all ancillary processes. This knowledge is required in order to be able to effectively plan the project and coordinate the activities of each stage of the SDLC. This is accomplished via reading and understanding the following documentation:

1. The Software Development Lifecycle (SDLC).
2. The Software Configuration Management Plan (SCMP).
3. The Software Quality Assurance Plan (SQAP).
4. The Project Team Training and Qualification Plan (PTTQ).
5. All documents available on the Shell Method example project Web site.
6. All guidance available on the Shell Method process repository.

QUALIFICATION

CONDITIONAL QUALIFICATION

The PDR is considered to be conditionally qualified after reading and understanding the above documentation. A written statement of compliance made available on demand serves as objective evidence of conditional qualification. A conditionally qualified PDR is suited to manage the lifecycle processes for a small project with a single PER.

FULL QUALIFICATION

The PDR is considered to be fully qualified after executing three complete lifecycle iterations across one to three separate projects. Eighteen stage exit presentations in one to three project or component archives serve as objective evidence of full qualification. A fully qualified PDR is suited to manage the lifecycle processes for medium and large projects with multiple PERs.

Quality Assurance Reviewer (QAR)

The QAR conducts periodic reviews of the stage deliverables associated with this project as defined in the SQAP. The QA reviewer works independently from the development team to ensure objective reviews.

Responsibilities

The QAR is primarily responsible for determining that appropriate technical and end-user reviews of stage deliverables are in place. The QAR is also responsible for verifying requirements traceability across stage deliverables, primarily by reviewing the appropriate requirements traceability reports.

Training requirements

The QAR is required to fully understand the SDLC, including specific knowledge of the deliverables and review criteria for all deliverable classes. This is accomplished via:

1. Reading and understanding the SDLC.
2. Reading and understanding the SCMP.
3. Reading and understanding the SQAP.
4. Reviewing the documents available on the Shell Method example project Web site.

Qualification

The QAR is considered to be qualified after reading and understanding the above documentation. An email statement of compliance to the PDR serves as objective evidence of qualification.

Development Team Members

Development team members may be either employed directly by the client or development firm or employed via subcontract. All employees and subcontractors associated with the project are subject to the same process and training requirements.

The development team supports multiple sub-roles, including programming, analysis, testing, and documentation. While development team members do not need to have a comprehensive understanding of the entire lifecycle, they are required to properly manage their source artifacts as well as produce or work with specific project documents such as the Software Requirements Document (SRD).

RESPONSIBILITIES

Development team members are responsible for generating and/or responding to issues in accordance with the workflows defined in the SCMP and SQAP and must manage their source artifacts in accordance with the SCMP. Development team members are also responsible for day-to-day activities involving nearly all of the stage deliverables defined in the SDLC. Sometimes they even get to write code.

TRAINING REQUIREMENTS

Developers are required to have a basic understanding of the processes, workflows, and stage deliverables for the stages in which they participate. This is accomplished via:

1. Reading and understanding the SDLC.
2. Reading and understanding the SCMP.
3. Reading and understanding the SQAP.
4. Understanding the operation of the source code management tool and build process as defined in the project SPMP.
5. Understanding the language, concepts, and operation of the project development environment(s) as defined in the project SPMP.

QUALIFICATION

A development team member is considered to be qualified after reading and understanding the above documentation. An email statement of compliance to the PDR serves as objective evidence of qualification.

TRAINING ENVIRONMENT & RESOURCES

The training environment for Shell Method processes consists of online delivery of training material. In some cases, training is accomplished via attendance at appropriate stage kickoff meetings. In the case of the PDR, conditional qualification is granted after reading and understanding the process documentation and examples, with full qualification obtained through on-the-job execution of three lifecycle iterations.

Resources required to access the materials described in this plan include:

1. A personal computer with access to the Internet.
2. A standard Web browser such as Firefox, Internet Explorer, Opera, or Safari.
3. A browser plug-in or stand-alone application capable of reading and rendering encrypted and/or signed Adobe Acrobat documents.

TRAINING MATERIALS

Training materials required by this plan are provided online via the Shell Method process repository, and include:

1. The Glossary of Software Engineering Terms
2. The Software Development Lifecycle
3. The Software Configuration Management Plan
4. The Software Quality Assurance Plan
5. The Project Team Training & Qualification Plan
6. The BOTS example project Web site.
7. Process guidance for infrastructure development and execution of each of the six stages of the iterative lifecycle, available on the process repository.