SOFTWARE QUALITY ASSURANCE

PLAN (SQAP)

ACCESS CONTROL LIST

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1. **PURPOSE**

The main objective of the Software Quality Assurance Plan (SQAP) is to provide tools, techniques and methodologies that will be used in assuring the application development based on the requirements within the project timeline. This plan is used to assure the following,

- Documents that stabilizes requirements for the application and architectural design
- Use of testing plan and strategy that will assure the quality of the application
- Reviews and audits are done on the documents and application to ensure that they comply with the mentioned standards.

2. **REFERENCE DOCUMENTS**

- Vision document in Inception phase
- Project plan in Inception phase

3. **MANAGEMENT**

**Organization**

The targeted audience for Access Control List (ACL) application is any third party system that needs ACL integration. This organization consists of Major Professor, committee members, developer and technical inspector.

**Committee members**

- Dr. Torben Amtoft
- Dr. Daniel Andresen
- Dr. Mitchel Neilson

**Major professor**

- Dr. Torben Amtoft

**Developer**

- Srunokshi Kaniyur Prema Neelakantan
**Technical Inspectors**
Krishnaveena Ramavath
Arthi Subramaniam

**Tasks**
This part discusses the tasks of the personnel like reviews and inspections done on the documents, application and presentation. Also to discuss the major task of the application like the assigning project/roles, creating users and administrating their responsibilities etc.

**Responsibility**

- **Major Professor** – The main responsibility of the Major Professor is to provide guidance to the developer and to evaluate the work done by the developer on regular basis.

- **Committee members** – The main responsibility of the committee members is to give comments and ideas based on the presentation given by the developer

- **Developer** is responsible for developing the application based on the requirement specification, to follow the software standards and to complete is within the specified timeline. They are also responsible for ensuring software quality using the testing standards.

- **Technical inspectors** are responsible for functional audits and physical audits. More information regarding this will be provided in the following sections of this document.

4. **DOCUMENTATION AND ITS STANDARDS**

Each phase has a set of documents that are submitted to understand and to review the application progress. Also these documents should follow a certain set of standards and metrics as it is serves as a source of reference during and after the duration of the project. For example, the test plan uses IEEE standards to formulate the strategy for testing which will be used and understood by all the testers during testing and maintenance phases. Also the following documentation should be submitted,

- Vision document, project plan, SQA plan, test plan, architecture design, and source code. All these documents are reviewed by committee members and technical inspectors.
5. REVIEWS AND AUDITS
Managerial reviews are done to assess the activity done by the developer in each phase
Technical reviews and audit are done on design, source code etc to ensure that they satisfy the specifications mentioned in the Vision document.

Minimum requirement
- Software Requirement is reviewed to ensure that the requirements are clear, adequate, unambiguous and complete
- Test plans and strategy that are used are reviewed to ensure that they cover all the functional involved in the application
- Functional audits are performed on the completed application to ensure all the features mentioned in requirement set are accomplished
- Physical audits are used to compare the code with the documentation to ensure that code and documents match each other
- In-process audits are done while the application is in progress to ensure that the developing application is consistent with the design
- A checklist is prepared in all these situations to identify the discrepancies and to come up with a solution for it.

6. TOOLS, TECHNIQUE AND METHODOLOGIES
Tools
For designing,
Gliffy used for creating UML diagrams
For developing,
IDE - Microsoft Visual Studio 2003 for developing
Oracle as Database server
Internet Information Services(IIS) as the Webserver
Visual Basic, HTML, Javascript as coding language
ASP.NET for creating Webforms
For documentation
MS Word for documentation
7. PROJECT DELIVERABLES AT EACH PHASE

Phase I

Vision Document
Project Plan
Software Quality Assurance Plan
Prototype

Phase II

Action Items – identified during phase - 1
Vision Document
Project Plan
Formal Requirements Specification
Architecture Design
Test Plan
Formal Technical Inspection
Executable Architecture Prototype

Phase III

Action Items - identified during phase - 2
User Manual
Component Design
Source Code
Assessment Evaluation
Project Evaluation
References
Formal Technical Inspection