

Campus Talk – Quality Control Management Plan Document

Team – 5
IT-632 Software Engineering
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Revision History

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1. Introduction

1.1 Purpose of Project Quality Management Plan

Quality Management Plan is to ensure that you're providing the products having the good quality. Quality Planning, Quality Assurance and Quality control are the main components of Quality management plan. This document consist of different methodologies used for ensuring the specific requirement are fulfilled in timely and cost effectively manner. The purpose of this document is not only to focus on product/service quality, but also the means to achieve it. Use metrics to develop strategies for improving software process and consequence quality of the product.

1.2 Scope

Its aim is to assure that results and deliverables of the projects of high quality and meet the specifications set in the SRS. It define the approaches for Software quality personl to monitor and assesses software development process and products. The scope of this plan includes the qualities practices and procecsdures, processes and deliverable produced during the course of CampusTalk Project.

1.3 Refernces

1. SRS
2. Desing Document
3. Project Plan

1.4 Acronyms

SRS : System Requirement Specification
PDCA – Plan Do-Check-Act
SDLC : Software Development Life Cycle

2. Methodologies

To ensure quality of product we're using methodology inspired by Deaming's Plan Do-Check-Act Cycle



PLAN

Revisit the goal.

Explore (quickly) one and only one, obstacle in our way of achieving the goal

DO

In reference to the one obstacle choose one and only one action step that can move us closer to the goal.

CHECK

Now that you have have done that one thing what worked?

ACT

If it worked; Can you do more and continue through the process again?

If it did not work; Have you stopped doing it and go through the process again.

Certain activities are performed to ensure the quality of the product:

Maintainance of documentation standard: All document must be in proper format and complete on time as per project timeline.

Insepection of revies of all document: Every document must be reviewed by all the team memebbers and changes are suggested and updated.

Varification and Validation: Varification activity is done at the end of every phase and present phase is complimented by the assumption made in previous phase. Validated by the various team members.

Coding guideline followed in the whole project coding phase: Following the coding Standard helps u to read, understand and maintain code easily.

Easy to maintain: Handle the changin need of customer, the hardware etc.

3. Quality Management Plan

The final aim of any project is to come up with the solution that is acceptable by the customer. Quality assurance plan teaches desired quality parameters. For this we need to make sure that every intermediate product

3.1 Quality Planning

Define Quality Standard

There are some features need to be handle to get the quality product.

- The s/w system should do everything that is documented in SRS document (Requirements)
- Best mechanisms for handling errors. It's better to use Error Prevention then Erro4 Detection.
- Quality Assurance is followed through the whole project life Cycle.
- Extra features always weight's one software. It act as bonus for client who is always looking for such offer.
- The recovery rate must be higher.

Measuring Quality Project

Factors which contribute in measuring Project Quality are:

Review Process:

All the documents are created, updated and reviewed as per need. All the team member or part of the team check whether the document satisfied the norms that have been set down. If any conflict occurs during document review try to mark that points and further try to resolve it.

An Anomaly IEEE standard is,

Any condition that deviates from expectation based on requirement specification, design documents, user documents, and so on from someone's perceptions or experiences. Anomalies may be found during, but not limited to, the review, test, analysis, compilation, or use of software products or applicable documentation.

All the document and product being created in the span of SDLC is well reviewed by each members of the team. As per PDCA when the document is completed, proper reviewing has to be done and based on that proper action should be taken. Just like that every single module is being reviewed and tested.

Cost: The software is developed in planned time without any work overhead. As main concern is learning curve of the project.

3. 2 Quality Assurance plan and Quality Control

Quality control: Related to the product quality

Quality Assurance: Related to the process Quality

Focusing on Quality Assurance leads to "High Quality" software. Hence the more focus is given to the Quality assurance. Quality Assurance plan is to specify the activities that need to be performed for identifying and removing defects, and tools and methods used for that purpose.

Quality Assurance plan should specify all steps needed to come up with a quality product. The purpose of quality assurance plan is to direct and facilitate the establishment of quality assurance activities within processes used to deliver right products and services to the clients.

Quality Assurance Procedures:

1. Structured walkthrough are applied for detecting errors and improving products at any 2. process stages.
2. Individual evaluation of process activities or finished products is done through checklist and meetings.

3. Independent examination of the product is carried out.

Responsible: Quality Assurance Team

4. Required Document

Following documents are needed to ensure that quality of the product is maintained.

Software Requirement Specification:

Requirement Analysis : Define User Requirement

Requirement Specification: Document that Requirements.

SRS Can be used as a reference for checking final product. Agreement between Client and Developer. Define "What the System is to do?" . SRS is incorporated and met with desired quality in the product.

Project Plan

Project planning includes development of overall project structure, activities and the work plan/timeline that will form the basis of the project management process throughout the project lifecycle. Project scheduling has to be followed to obtain quality product.

Software Design Specification:

It's Document between requirement specification to the final solution. Various diagrams are created like ER Diagram, Sequential Diagram, etc. Module detail (Algorithm and Data structure) is given so that we can directly implement them in different programming language.

5. Test

Testing is the process of analyzing a software item to detect the difference between existing and required condition and evaluate the features of the software item. Various testing must be done on project to ensure that all the requirements in SRS are fulfilled efficiently. The test log and test report of CampusTalk ensure that all modules work correctly.