Indian Institute of Information Technology, Vadodara

Meetup

Configuration Management Plan

Author:
Divyesh Puri (201652006)
Sushil Kannoje (201652027)

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Revision History

Name	Date	Reason For Changes	Version

Contents

1 Introduction

A software design document is written by the system designers in order to give the team an overall guidance of the architecture of the software project.

1.1 Purpose

Software Configuration Management (SCM) is a proce- dure to identify and control major software changes, en- sure that change is being properly implemented, and re- port changes to any other personnel or clients who may have an interest. Software Configuration Management manages the effect of changes through out the software process. The Software Configuration Management plan contains:

- The resources used for tracking and controlling changes in the software.
- The roles and responsibilities of different members in the SCM activities.
- Controlling and managing changes to the SCM plan.
- There are some procedure to be followed while making any changes to the project.

1.2 Scope

The purpose of this document is to provide rules and guidelines for the storage and of all documents that are created during this project. Additionally it will give nam- ing and layout conventions for all documents and describe the identification of all major documents. The purpose of Software Configuration Management (SCM), in gen- eral, is to establish and maintain the integrity of work products using:

- Configuration Identification
- Configuration Control
- Configuration Status Account
- Configuration Audit

2 Management

This section identifies the roles and responsibilities of in- dividuals and groups that participate in the SCM process.

2.1 Roles and Responsibilities

Role	Description
Project Manager	The Project Manager should be aware of all the changes made to the documents and Make sure team members are knowledgeable of SCM concepts and techniques and that they are applied to project activities- Divyesh Puri
Configuration Management	Project CMM will prepare the SCM Plan with assistance from the Project Manager. The CMM is responsible for creating and/or updating the SCM Plan, as well as communicating the contents of the plan to the project team - Shubham Singh
Front-end Developer	They are responsible for the changes related to the UI and design of the project to the backend developers and the other team members - Frontend Team [Divyesh Puri, Sushil Kannoje, Pooja Gurjar]
Back-end Developers	Back-end code adds util- ity to everything the front-end designer creates. Back- end developers create database as per the requirements and make changes in them according to SCM - Backend Team[Divyesh Puri, Shubham Singh, Radheyshyam].

2.2 Applicable Policies, Directives, and Procedures

We have created a separate Google drive for our project team where all the members have been added. All relevant documents are to be added and stored on the Google drive. Documents should immediately be available to the developers. We have also created a Github account to store and manage all the changes made to the source code and all the revisions are stored on this repository. Changes made to any of the work products are communicated through Whatsapp messages. We also conduct meetings at regular interval to discuss about the progress of the project.Updated source-code should always be tested and must not contain any simple errors. Revision conflicts are to be resolved by the developers themselves as soon as possible. Communication with other developers is advised.

3 SCM Activities

Software Configuration Management(SCM) activities in- formation identifies all functions and tasks required to manage the Configuration of the software system as spec- ified in the scope of the Plan. Both technical and managerial SCM activities shall be identified.

3.1 Configuration Identification

Purpose of Configuration Identification is to define the functional and physical characteristics of a CI in sufficient detail so that it may be developed, tested, evaluated, produced, competitively procured, accepted, operated, maintained, and supported. Throughout the software development process,the development team is going to produce a large number of artifacts. Thus every artifact has to be identified,named and described.The following section will describe these details of various configuration activities.

3.2 Document Configuration Identification

All documents which are created throughout the software development process should follow the same naming convention. The names of the document should be able to

identify:

- The document belongs to which team
- Name of document
- Version of document

The document author must ensure that the document created by him or her should have a name which should be intuitive and should tell the reader what the basic idea of the document is.

3.3 Configuration Control

Configuration Control defines the following steps

- Analysis and evaluation of changes
- Requesting changes
- Verification, Implementation of changes

3.4 Requesting Changes

Specifies the procedures for requesting a change to base- line CI and information to be documented. All the documents for our project that we made are puted on Gmail account of our group and are shared with all the other members so that they can view them from anywhere and also dynamically make changes to the documents. When- ever someone wants to make any changes to any of the documents, he/she has to provide a note, requesting for the changes, so that other readers can review them. We have made github account For the code files, any changes to the code have to be made in the same file and should be accompanied with relevant comments about the changes. After changes are made to a code file, the Git add and commit procedures are used to push the changed file onto the master repository. After this is done, a pull request is created by the team member requesting the changes.

3.5 Evaluating Changes

If a member of our team requests to change any of the documents then it is evaluated by the review team. After evaluation, the decision is made to either incorporate the changes or reject the request made by the member.

For any Changes made to a code file, the changes are evaluated by the review team. After evaluation, the pull request is either accepted or rejected based on the evaluation results.

3.6 Implementing Changes

After implementing the changes in the document, the modified document gets saved automatically on the drive. All the member needs to do is to communicate the changes to the rest of the team. Once a pull request is accepted, Git stores the new, changed configuration object in the repository along with the changes that were made from the previous version. Then it deletes the older version from the repository.

4 Resources

- Github is free and open source tool for managing the project online. It is also called version control system.
- Google Drive: Google Drive is a free document storage tool. Every gmail user has a drive account as well where one can store important documents and other things. Google Drive provides global access to any documents shared between people on the drive.
- Share Latex: Share Latex is a free, online document creation tool in latex. Documents can be created online and shared with anyone. Any changes made to any of the documents gets saved automatically.

5 Plan Maintenance

A person who is responsible for monitoring the Software Configuration Management Plan is called Configuration Manager. The Software Configuration Management Plan has to be updated on the introduction of new Software Configuration Management guidelines or the modification of the old guidelines. The Plan should be reviewed at the start of each project software phase, changed accordingly, and approved and distributed to the project team. Changes made related to the the Software Configuration Management Plan are evaluated and approved by the review team. After removing and

modifying the Software Configuration Management Plan, the changes made are communicated to all the team members along with the new, modified Software Configuration Management Plan.

6 References

- IEEE Std 828 TM-2005 (Revision of IEEE Std 828-1998) IEEE Standard for Software Configuration Management Plans.
- IEEE Std 828 Software Configuration Management.
- IEEE Std 1042 Guide to Configuration Management