Learning Journal Template

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Course: SOEN6841 Software Project Management

Journal URL: https://github.com/nisarg291/SOEN6841_Journal

Week 4: 11/02/24 to 17/02/24

Date: 16/01/24

Key Concepts Learned:

In the configuration management chapter, I've gained knowledge about configuration management and the characteristics of good configuration management. Moreover, I understand the different configuration techniques, major configuration functions, and some change control policies.

Configuration management: It is a process of controlling and documenting the changes to a system.

Sources of Changes in Projects: Requirement Changes, changes in funding, technology advancements, solutions to problems, scheduling constraints, customer expectations, and unexpected opportunities.

Why is Software CM needed? Software is easy to change, Software is invisible, Types of components to keep trace like documentation, code and tools used to develop software and Software is often changed during the life cycle because of customer is not sure about the software or needs to rework due to errors.

Benefits of Configuration Management: Some of the benefits of CM are

1. Reduces confusion and establishes order.
2. Organize the activities necessary to maintain product integrity.
3. Ensures correct product configurations.
4. Limits legal liability by providing a record of actions.
5. Reduces life-cycle costs.
6. Enables consistent conformance(coherence) with requirements.
7. Provides a stable working environment.
8. Improves compliance with standards.
9. Enhances status accounting.

Characteristics of good C.M.: Version control, Auditable, centrally located, secure, Access to all teams, access to remote teams, continuous integration, Artifact location.

Some common tags for item (Document) identification are Project name, Document name, Document number, Author, Activity identifier, Document Type and Version number.

Purpose of Configuration Management:

To establish and maintain the integrity of the work product using configuration identification, configuration control, configuration status accounting, and configuration audits.

1. **Configuration Identification:** defining baseline components.
2. **Configuration Control:** To provide a mechanism (i.e. documentation, organizational body, procedures) for preparing, evaluating, approving or disapproving all changes throughout the lifecycle.
3. **Configuration status Accounting:** accounting for the changes that are made to the system. Provide a mechanism for maintaining a record of the evolution of a system (e.g. history) at any time.
4. **Configuration Auditing:** Provide a mechanism for determining the degree to which the current state of the system mirrors the system pictured in baseline and requirements documentation.

In the Project Planning Chapter, I've gained knowledge about project planning, components of the project planning and their importance. I also understand how to plan projects using a top-down approach and how to plan projects using a bottom-up technique and the inputs and outputs of both techniques. Moreover, understand how to break project work into smaller tasks using a Work breakdown structure(WBS), and how to allocate the Resources among the staff. Lastly, got some understanding of supplier management plans and configuration management plans.

- In the project planning phase, elaborate planning for all project components is made. You create a baseline structure here which is used to execute, monitor and control the project.
- Project planning consists of project scheduling, project budgeting, manpower planning, risk planning, scope planning, supplier planning, communication planning, quality planning etc.

Reflections on Case Study/course work:

The case study outlines how a U.S.-based software vendor successfully implements a central configuration management system for their incremental iteration development environment. The system caters to internal, external, and offshore teams, ensuring efficient collaboration and development. Key highlights include:

- Utilization of incremental iteration development model.
- Internal and offshore teams in locations like India and Russia.
- Centralized configuration management system accessible 24/7.
- Strict access rights with administration, view-only, and super-user roles.
- Main branch of version control containing major software updates and related artifacts.
- Automated smoke testing software for checking code compatibility with existing builds.
- Failure notices sent to designated individuals for prompt resolution.
- Developers maintain local builds synchronized with the central configuration tool for reliability.
- Escalation process to the global program manager for unresolved build issues after one hour.

Overall, this setup ensures smooth development workflow, minimal downtime, and high security, facilitating effective collaboration across diverse teams and locations.

Collaborative Learning:

This week, our project group held meetings to discuss how our project which is a food waste reduction and redistribution platform can be introduced during our presentation in 3 to 4 minutes and made the final report for our project initiation and market analysis of our project.

During the presentation, after listening to all the students' presentations, I got to know how to engage the audience while giving a presentation and got some ideas about the current problems and some best software solutions.

While working with my team on my project, I understood the concepts of project management more clearly and understood how to give presentations more effectively and how to engage the audience while giving presentations.

Further Research/Readings:

After reading configuration management from the textbook, to gain more knowledge about configuration management, I read some topics from the recommended reading books such as J. Keyes's (2004) Software Configuration Management and A. Mette Jonassen Hass's (2002) Configuration Management Principles and Practice, Addison-Wesley Professional, Boston, MA.

I understood the difference between quality and risk management, how to make a good quality plan, the goal of risk management, The Strategies, contingency plans and scenarios that need to be considered to mitigate risks, what is the risk register and how to find the cost of residual tasks.

Adjustments to Goals:

I reviewed my previous week's goal, and I was able to achieve the previous week's goal, As I reviewed Chapter 5 and some concepts of Chapter 6. Moreover, I completed the 1st project deliverable and project presentation and started revising chapters 1 and 2 for the midterm exam.

Plan for the upcoming week includes reading all concepts of Chapter 6 and planning to revise all the topics from Chapter 1 to Chapter 6 from the textbook for the midterm exam.