**Learning Journal Template**

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**Course:** Software Project Management

**Journal URL:** [Github Link](https://github.com/abhijitbanerjee05/SOEN-6841-Software-Project-Management.git)

**Dates Rage of activities:** 09.01.2025 – 23.02.2025

**Date of the journal:** 23.01.2025

**Key Concepts Learned**

This week, I delved into two major topics in software project management: Configuration Management and Project Planning.

* Configuration Management focuses on controlling and documenting changes in a system. I learned about its importance in handling version control, tracking change requests, and ensuring product integrity. The four key functions—configuration identification, control, status accounting, and auditing—are crucial for maintaining software quality.
* Project Planning is an essential and time-consuming phase that involves defining project components, scheduling, budgeting, resource allocation, and quality planning. I learned about techniques such as Work Breakdown Structure (WBS), Critical Path Method (CPM), and Goldratt’s Critical Chain Method for efficient project execution.

**Application in Real Projects**

* Configuration management ensures project teams track version changes, maintain a structured documentation system, and prevent errors caused by uncontrolled modifications.
* Project planning techniques such as WBS help break complex projects into manageable tasks, making it easier to allocate resources effectively.
* Scheduling strategies like top-down and bottom-up planning allow better estimation of timelines and dependencies between tasks, reducing project delays.
* Contingency planning is vital since unexpected risks can impact project timelines and budgets.

**Peer Interactions**

* Discussed configuration management issues with peers and realized how uncontrolled changes can cause chaos in a project.
* Engaged in a brainstorming session on project scheduling techniques, where different perspectives on top-down vs. bottom-up planning emerged.
* A key takeaway from discussions was how important contingency planning is since unexpected risks often delay projects.

**Challenges Faced**

* Understanding Goldratt’s Critical Chain Method was challenging as it differs from traditional scheduling techniques.
* Estimating task durations in Work Breakdown Structures (WBS) seemed straightforward but requires experience to be accurate.
* Balancing configuration management while maintaining agility in development remains a challenge.

**Personal Development Activities**

* Explored real-world case studies on software failures due to poor configuration management.
* Practiced creating Gantt charts and precedence networks to visualize project schedules effectively.
* Took an online course on agile project planning to refine my approach toward iterative development.

**Goals for the Next Week**

* Master CPM and Goldratt’s Critical Chain Method by applying them to a sample project.
* Work on a small project plan using both top-down and bottom-up approaches to compare their efficiency.
* Enhance my understanding of change control policies and how they can be enforced in agile workflows.
* Engage in a discussion or workshop on supplier management planning to better grasp outsourcing strategies.