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Course: SOEN 6841 - Software Project Management

Journal URL: <https://github.com/MHUZAIFA/SOEN-6841-Software-Project-Management>

Week 1: Jan 25 – Feb 6

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Learning journal: 2

### **Key Concepts Learned:**

I learned how to create a poster and why Continuous Kindness (topic analysis) is important in the workplace. Furthermore, I also learned about Configuration Management, its purpose and benefits, change requests, Impact Analysis Reports, and change control policies. Additionally, I studied project planning, top-down vs. bottom-up approaches, Work Breakdown Structure (WBS), and Precedence Networks Graphs for task dependencies.

### **New Concepts learned:**

- What is continuous kindness? (Topic Analysis) Its power. Its impact on Microsoft, Google and Netflix.
- Configuration Management (CM) is essential for controlling and documenting system changes.
- CM ensures software artifacts' traceability, consistency, and quality.
- Sources of change include requirements, funding, technology advancements, scheduling constraints, and unexpected opportunities.
- Poor CM practices can lead to version control issues, missing features, and quality problems.
- CM provides benefits such as reducing confusion, ensuring compliance with standards, and enabling traceability.
- Configuration control ensures structured processes for change approvals and impact analysis.
- Change requests require structured documentation and approval from the change control board.
- Impact Analysis Reports include estimates for cost, risk, and schedule impacts.
- The four key functions of CM are Identification (establishing baselines), Control (change request management), Status Accounting (tracking changes) and Auditing (verifying compliance)
- Project planning is a continuous activity requiring frequent updates and revisions.
- A project schedule can be created using top-down or bottom-up approaches.
- WBS is used to break down projects into manageable tasks and define dependencies.
- Scheduling challenges include difficulty estimating complexity, resource allocation issues, and unexpected delays.
- Activity networks (PERT) and Gantt charts help visualize task dependencies and project timelines.
- Learned how to create and read PERT charts.
- Critical Path Method (CPM) and Goldratt's Critical Chain Method help optimize project scheduling.
- Proper supplier and communication planning are crucial for project success.
- The iterative software lifecycle model requires a flexible approach to project planning compared to the waterfall model.

**Application in Real Projects:**

- Continuous kindness (Topic Analysis) had a positive impact on Google, Microsoft and Netflix. It helped them in making their teams more efficient, increase productivity and build trust.
- By following structured CM processes, projects can avoid common pitfalls related to version control and unexpected changes.
- Clear documentation of change requests and their impact ensures better project traceability.
- Using SMART criteria in project planning improves goal setting and accountability.
- Scheduling techniques like CPM and PERT can optimize resource allocation and prevent delays.
- Precedence Networks and WBS structures help define task dependencies and resource requirements efficiently.

**Peer Interactions:**

- Various interactions for preparing and presenting topic analysis.
- Project Pitch presentation discussions on various topics.
- Worked with peers on understanding configuration control processes and how change requests are managed.
- Analyzed case studies on real-world implementation of WBS and precedence networks for task dependencies.

**Challenges Faced:**

- Didn't use the Canva application before, so I had to learn how to use it.
- Didn't know how to create a poster, so had to learn how to create a poster for topic analysis.
- Applying impact analysis techniques to change requests required a deeper understanding of project dependencies.
- Developing an effective project schedule while accounting for resource constraints was difficult, particularly in balancing top-down and bottom-up approaches.

**Personal development activities:**

- Reviewed chapters on CM and project planning.
- Watched YouTube tutorials on project estimation and scheduling tools.
- Explored real-world budget estimations and WBS structures.
- Researched best practices for change control and configuration management in software projects.

**Goals for the Next Week:**

- Prepare for presentation for project pitch.
- Re-read key points from chapters 1 to 6 of the book.
- Prepare for Examination 1.
- Work on Exercise 3.1