Learning Journal Template

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Course: Software Project Management

Journal URL: https://github.com/ZazibaAhmed/SOEN6841-Learning-Journals

Dates Rage of activities: 16th Jan 2025 - 23rd Jan 2025

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Key Concepts Learned:

This week I focused on learning Chapters 1,2 and 3 i.e **Software Projects**, **Project Initiation**, **Effort Estimation Techniques, etc.**

- **Chapter 1: We focused on understanding what makes a project**
  - **What is a project?** Defined as a set of activities with a start and end time aimed at achieving predefined goals.
  - **Software project management:** Involves planning, organizing, and managing resources to deliver a software project within constraints like budget and time.
  - **Characteristics of good project management:** Effective leadership, clear communication, and specialized skills like software testing and engineering.
  - **Roles in software projects:** Leader (visionary), Manager (planner), Scrum Master (Agile facilitator), Project Manager (balancing scope, time, and cost).
  - **Project phases:** Initiation, planning, monitoring & control, closure.
- **Chapter 2: We focused on the process of project initiation**
  - **Project initiation:** Begins with a project charter, defining its purpose, scope, objectives, and budget.
  - **SMART objectives:** Goals must be specific, measurable, achievable, relevant, and time-constrained.
  - **Project scope:** Outlines the boundaries of a project, including functionalities and quality expectations.
  - **Scheduling:** Initial project schedules include task breakdowns, dependencies, and durations, eventually refined into a baseline schedule.
- **Chapter 3: We focused on effort estimation techniques and challenges**
  - **Effort estimation techniques:** Include function point analysis (FPA), estimation by analogy, and algorithmic cost models like COCOMO II.
  - **Resource estimation:** Based on effort estimates and skill sets required for project tasks.
  - **Challenges in estimation:** Effort uncertainty due to intangibility, evolving technologies, and project uniqueness.
  - **Development models:** Waterfall and iterative approaches differ in effort estimation due to their execution styles.

Application in Real Projects:

- **Project planning and initiation:** Applying concepts like SMART objectives and project charters can help define clear goals for real-world software projects, ensuring alignment with stakeholder expectations.
- **Effort estimation:** Techniques such as FPA and estimation by analogy provide structured ways to predict resource needs, crucial for budgeting and resource allocation.

Peer Interactions:

- Discussions about **estimation challenges** highlighted the variability in effort predictions due to diverse team skills and project complexities.
- Collaborative exercises in creating project charters and SMART objectives enhanced understanding of initial project setup.

Challenges Faced:

- **Understanding estimation techniques:** Techniques like COCOMO II were complex due to mathematical dependencies and multiple variables.
- **Scope refinement:** Struggled with defining project boundaries clearly in scenarios involving overlapping functionalities.

Personal Development Activities:

- Reviewed additional materials on effort estimation to understand its practical applications better.
- Participated in a simulation project to practice dividing tasks and assigning resources.

Goals for the Next Week:

1. Deepen understanding of cost and effort estimation techniques, focusing on practical application.
2. Work on creating a complete project plan, including scheduling and resource allocation.
3. Participate in peer discussions to clarify uncertainties around algorithmic models like COCOMO II.
4. Focus on Chapter 4,5,6