Learning Journal 1

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Course: Software Project Management (SOEN 6841)

Date Range of activities: 9th September 2024 to 20th September 2024

Date of the journal: 21st September 2024

Key Concepts Learned:	Application in Real Projects:	Peer Interactions:	Challenges Faced:	Personal development activities:	Goals for the Next Week:
• **Understanding Project Nature:** Projects are defined by their unique and temporary characteristics, requiring tailored management strategies. • **Overview of Project Management:** This involves various subprocesses that facilitate movement through key stages, including requirements gathering and maintenance. • **Phases of Project Development:** The project lifecycle includes critical steps such as initiation, design, development, and ongoing support. • **Foundational Tasks:** Important activities like drafting project charters, estimating timelines, and forecasting costs set the stage for success. • **Initiation of Software Projects:** Key tasks include conducting market research, assessing development needs, defining features, and planning delivery methods.	• Project management principles apply universally, guiding development and release phases. • Example: Launching CRM software requires structured phases—design, development, testing, and maintenance. • Key aspects include scheduling, risk management, and quality assurance. • Initiation tasks involve project charters, schedule estimates, and cost definitions. • Essential software activities: market analysis, accurate estimates, feature definitions, and success metrics.	• Discussed case studies on project management roles. • Analyzed the importance of effective project planning • Shared insights on management challenges.	• Expect to implement these concepts in an upcoming course project. • Struggled to differentiate between project requirements and stakeholder expectations, causing confusion in group discussions.	• Participated in coding challenges to improve programming skills and foster a deeper understanding of software development concepts. These challenges promote critical thinking and problem-solving abilities essential for future projects.	• Review key project management principles and complete relevant sections in the coursebook. • Focus on developing a clearer understanding of risk management strategies and their application in ongoing projects.

Week 2: • **Effort Estimation:** Crucial during the design phase to inform project planning and development timelines. • **Estimation by Analogy:** Involves leveraging data from previous projects, applying a multiplication factor to derive effort estimates based on similarities. • **Expert Judgment:** Utilizes the insights and experience of team members to provide informed estimates, enhancing the accuracy of project planning. • **Function Point Analysis (FPA):** Assesses software complexity by calculating Unadjusted Function Points (UFP), focusing on five function types: Internal Logical Files (ILF), External Interface Files (EIF), External Inputs (EI), External Outputs (EO), and Equations (EQ). • **Delphi Method:** A collaborative approach that gathers collective input from experts to arrive at consensus-driven estimates, enhancing reliability. • **COCOMO2 Cost Modeling:** An algorithmic framework that includes sub-models such as application composition, early design, reuse, and post-architecture to refine cost projections throughout the project lifecycle.	**Effort Estimation:** The team uses analogy-based methods alongside expert judgment to forecast required effort. This approach draws on historical project data and the insights of experienced team members to enhance planning accuracy. **Function Point Analysis:** This technique counts five specific function types to determine Unadjusted Function Points (UFP). It effectively measures software features focused on user needs, offering clarity on complexity. **COCOMO2 Cost Modeling:** Utilizing COCOMO2's various sub-models significantly enhances the accuracy of cost estimates across all project phases, enabling better budget assessments and resource allocation.	• Reviewed cost estimation techniques and their selection. • Exchanged views on effort estimation's impact on timelines. • Engaged in group activities applying estimation methods.	• Concentrated on mastering intricate effort estimation methods, such as FPA, COCOMO, and Wide Band Delphi. Noted that additional clarification is needed to apply these techniques effectively in project management. • Pinpointed specific areas that require more focus to ensure proper understanding and application in practical settings.	• Participated in collaborative study sessions with classmates to dive deeper into software testing methodologies, enhancing my understanding of quality assurance processes and their importance in project management.	• Focus on mastering cost estimation methods covered in the course while exploring additional resources to reinforce understanding. • Collaborate with team members on project deliverables, ensuring alignment of effort estimation with realistic timelines.