**Learning Journal Template**

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**Course:** SOEN-6841

**Journal URL:** [Github Link](https://github.com/shahidul-alam/SOEN-6841/tree/main/Learning%20Journals)

**Dates Range of activities:** 9-9-24 to 16-9-24

**Date of the journal:** 21-9-24

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| **Key Concepts Learned:** | **Application in Real Projects:** | **Peer Interactions:** | **Challenges Faced:** | **Personal development activities:** | **Goals for the Next Week:** |
| The sessions introduced key concepts in Project Management and Software Engineering, focusing on project initiation, effort estimation, and cost modeling. Topics included creating a project charter, which outlines the project's purpose and goals using the SMART framework. Estimation techniques such as COCOMO for predicting project costs and Function Point Analysis (FPA) for measuring software size were also explored. Additionally, methods like activity-based costing were discussed to link effort estimation to the project’s budget, emphasizing the importance of structured planning for effective project management. | This week’s learnings highlighted key concepts in project management, particularly focusing on project initiation, effort estimation, and cost modeling. Creating a project charter and setting SMART objectives ensures clear communication and alignment of expectations. Techniques like COCOMO (Constructive Cost Model) and Function Point Analysis (FPA) offer structured methods for resource estimation and budgeting. However, real-world challenges, such as the availability of accurate historical data and the unpredictability of new technologies, can complicate precise estimation. The success of these methodologies often relies on continuous adjustments and the experience of the project team. | Engaging with peers provided useful insights, especially in discussing the challenges of setting project scope and SMART objectives in changing environments like startups. A group exercise on effort estimation using COCOMO and Function Point Analysis (FPA) helped deepen the understanding of how these models can be applied in different industries. These discussions highlighted that while these methods offer structure, flexibility and adjustments are key to making them work in real-world situations. | I had difficulty understanding and using effort estimation methods like COCOMO and Function Point Analysis (FPA). The formulas and calculations were confusing, especially when the information was incomplete. Applying these methods to Agile development, where requirements change frequently, was also challenging. I feel I need more practice or examples to grasp these concepts better. | I focused on improving my understanding of Agile project management by reading books and articles about Agile methods and how they differ from traditional approaches. This helped me learn how to manage changing requirements and iterative development. I also had discussions with peers and professionals to gain practical insights into the challenges and benefits of Agile in real-world projects. These experiences have given me a better idea of how to apply Agile concepts in my future work. | I plan to strengthen my understanding of effort estimation techniques like COCOMO and FPA by practicing with real examples. I'll also focus on applying Agile methods, especially for managing changing requirements and estimating effort in iterative cycles. In addition, I aim to improve my skills in risk management and resource allocation, and learn how to combine traditional and Agile project management approaches to suit different project needs. |
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