

Learning Journal 2

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Course: SOEN 6841: Software Project Management

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1. Key Concepts Learned:

In Class

In the next two lectures professor discussed chapter 3 and 4. Chapter 3 deals with effort and cost estimation techniques whereas chapter 4 discusses various types of risks related to a project and their successful management. From the lecture related to chapter 3 I particularly learned the various techniques and formulas using which we can measure effort and also how to remove cost estimation for the projects. From the next lecture I understood the fact that how all risks not necessarily leads to negative things and how early risk identification can lead to lower delays and increased productivity hence a better project.

At Home

After attending the lecture I sort out to read the reference book "Software Project Management: A Process-Driven Approach" by Ashfaque Ahmed

I read chapters 3 and 4 of the book during the period of time this journal covers and tried to summarize my learnings and key concepts given below:

Chapter 3: Software Project Effort and Cost Estimation

Chapter 3 discusses estimation of efforts and costs for software projects. Estimating these metrics is very important because it has a major role in budgeting, timelines, and resource allocation. Ahmed also discusses various techniques like expert judgement, analogy based, parametric models (COCOMO) and bottom up estimation. Efforts need to be accurate so that projects are can be estimated based on their feasibility and we can monitor progress.

Key Concepts:

- **Effort Estimation:** Estimating the amount of work required for the project.
- **Cost Estimation:** Calculating the financial resources needed.
- **Estimation Techniques:** Includes expert judgment (experience and logging), parametric models (formula based), and analogy-based approaches (logic).
- **Factors Affecting Estimates:** Complexity, team skill level, and project scope .

Chapter 4: Risk Management

This chapter focuses on identifying, analysing, and mitigating risks in software projects. Risk management is crucial for lessening the effects of uncertainties that could put the project out of place. Ahmed outlines the risk management process, which involves risk identification, risk analysis, risk prioritization, and the development of mitigation plans. The chapter stresses the need for continuous

monitoring and reassessment of risks throughout the project lifecycle. The software model which enables this is the spiral model.

Key Concepts:

- **Risk Identification:** Recognizing potential project risks (e.g., technical, financial, schedule risks).
- **Risk Analysis:** Assessing the likelihood and impact of each risk.
- **Risk Mitigation:** Developing strategies to minimize the impact of risks.
- **Continuous Monitoring:** Regularly reassessing risks as the project progresses.

2. Application in Real Projects:

The estimation techniques discussed in the 3rd chapter are particularly used in all modern day software projects where as we move on from project initiation we calculate estimates both in terms of hours to put in and costs. The effort estimation in person-months can easily give us a calculation of number of developers required and the cost estimates can help us recalibrate the budget or scale-up or down the project to match the project.

Risk Analysis and mitigation discussed in chapter 4 highlights the various ways in which it could be risky to move ahead with certain tasks but if proper estimation techniques are undertaken we might be able to mitigate risks. Risk identification helps us identify the various paths through which risks can creep into project management and appropriate risk planning and resolution helps mitigate them.

3. Peer Interactions:

I held regular calls and meet ups with my team members to discuss subject matter and also to come up with a pitch to present our project Proresume Builder Infront of the class. Got to learn a lot of personal attributes to take care of during delivery and also pitching style that helps develop confidence and interest of audience in the product

4. Challenges Faced:

I faced some challenges in relation to scheduling of my assignments from all the courses but due to getting a sense of successful management from this course I am constantly improving.

5. Personal development activities:

I participated in pitch mock-ups with my team members which helped me improve my confidence and reduce stage fear. Though I didn't deliver the final pitch I am looking forward to presenting in the next phase of the project.

6. Goals for the Next Week:

In the coming week I am planning on going through chapters 5 and 6 (to be covered on coming Monday) apart from revisiting the ppts of chapters 3 and 4. This week's goals are a little shorter since I have my midterms for one of courses on Wednesday so would be giving more time to that course this week. Regardless I would be reading on chapter 5 and 6.