**Learning Journal Template**

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**Course:** SOEN6841 Software Project Management

**Journal URL:** https://github.com/nisarg291/SOEN6841\_Journal

**Week 2:** 28/01/24 to 03/02/24

**Date:** 01/01/24

**Key Concepts Learned:**

In the efforts and cost estimation chapter, I have learned the importance of effort estimation for any software project. Efforts can be estimated in two ways using experience-based techniques and algorithmic cost modelling techniques. Statistical effort estimate techniques are extremely useful for effort estimation. Moreover, previous similar projects’ data can be used for effort estimation of the current project. Different effort estimation techniques can be used depending on the situation and the information available.

**Experience-based Estimation Techniques:**

1. **Estimation by Analogy:** Estimate new projects by comparing them to similar past projects, preferably decomposing the estimate. Firstly, we need to get the detailed size results for a similar previous project. Secondly, compare the size of the new project to a similar past project. Thirdly, build up an estimate for the size of the new project. Last, create an effort estimate based on the size of the new Project.
2. **Estimation by Expert judgement:** TheExpert uses some techniques for estimation.
3. **Function Point Analysis:** Function point analysis measures the functionality that the user requests and receives. It also measures software development and maintenance independently of the technology used for implementation. The steps to calculate FPA are 1. Determine the type of function count 2. Identify the scope and boundary of count 3. Determine unadjusted FP count (UFP) 4. Determine value adjustment factor (VAP) 5. Calculate the adjusted FP count.
4. **Wide Band Delphi (Delphi Technique)**: This is used to estimate the team efforts on the project. To estimate project effort, each team member estimates the parts of the project individually. After that, they discuss the differences among the individual results and then make the average estimation. Moreover, they calculate the consensus effort (E). Lastly, they calculate a range of effort estimation values.
5. **COCOMO:** This model can be used when previous project data are not available. **Effort** **Calculation**: Effort = 2.94 \*EAF \* (KLOC)^ E

Moreover, I also understand the difference between the effort estimation for waterfall modelling and iterative modelling. Cost estimation, cost factor analysis, schedule estimation and resource estimation.

**Reflections on Case Study/course work:**

The case study talks about a software company that estimated it would take a certain amount of work to develop a big piece of software. They thought it would be less work than it was. But when they looked at things again, they realized they needed more people to get the job done. So they hired over 50 people to work on it, which cost them less money each month.

Their project is all about making it easy to schedule appointments, which is complicated. Because of this, they knew they had to test everything well to make sure it worked right.

Overall, the case study shows how the company was able to change its plans when things didn't go as expected. It also shows how they made smart decisions to reach their long-term goals. And it teaches us how estimating how much time and money a project will take is important in the real world.

**Collaborative Learning:**

This week, our project group held multiple meetings and we reviewed some concepts of Chapter 1 and Chapter 2 which are necessary for our project. And we started working on the project work.

**Further Research/Readings:**

Review certain aspects from Chapter 4, including the definition of project risk, the rationale behind its consideration, and the different categories of risks.

**Adjustments to Goals:**

I reviewed my previous week's goal, and I was able to achieve the previous week's goal, I reviewed Chapter 3 and Chapter 4.

Plan for the upcoming week includes reading Chapters 4 and 5, conducting a market analysis for the assigned project, initiating the project, and conducting further research on the project.