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Key Concepts Learned

During this week I was focusing more on the basics of software project management, in which I learned the difference between traditional practices and software specific project and how they have unique challenges in terms of complexity, flexibility, visibility etc (Chapter 1) I also learned about several project phases like initiation, planning , monitoring, closure also the process which are associated for e.g. requirement gathering and design (Chapter 1)

Moreover, I learned different effort and cost estimation techniques like experience-based estimation and algorithmic cost modelling (COCOMO), and the importance of revising estimates as projects evolve (Chapter3). I also learned techniques which will be essential in managing project resources effectively in case of uncertain project sizes (Chapter3).

I kept (chapter 2) for the last where I learned the objective must be SMART and learned the abbreviation SMART and how it is beneficial to understand the objective of the Project.

Application in Real Projects

Real-world applications of such concepts would be shown while managing a software product in a retail business, where resource estimation and phase management is very important. For example, proper project scope definition and identification of stakeholder expectations during the project initiation phase would prevent scope creep later on. As demonstrated in Chapter1 and Chapter3, I can understand that use of COCOMO modeling will provide better effort and cost predictions in a more systematic way, especially in large projects where uncertainty is a common factor.
Another innovative application could be Agile in hybrid projects. This is where one can apply how the merge of iterative development with traditional waterfall may provide better flexibility while maintaining structure for those elements that are not software in nature (Chapter3).

Peer Interactions/Collaboration

In the group discussions this week have helped in clarifying effort estimation techniques, especially the algorithmic versus experience-based models. One of my peers contributed by suggesting wide-band Delphi-an estimation technique where team members individually estimate portions of the project and then review findings with others. This sharing made me

think that in future projects, planning group estimation sessions will lead to deriving more realistic estimates and promoting better teamwork. From the comments provided by peers, I have revisited my understanding of how variables like complexity are handled by estimation techniques such as COCOMO (Chapter 3).

Challenges Faced

I found it difficult to grasp all the estimation techniques, especially how cost multipliers and effort drivers in the COCOMO model work. Sometimes it took more time to grasp concepts and had to watch multiple videos and class notes to get command over these concepts. Similarly, with the phases of project management, although conceptually well understood, application was relatively more challenging in case scenarios, especially whenever project complexity increased.

Personal Development Activities

To develop my understanding of estimation models, I read case studies of software projects that had utilized models like COCOMO. I did some tutorials online on JIRA and Trello project management tools, which I think will be useful in putting practically what I have learned with regard to project tracking (Chapter 3). Moreover, I scheduled a study plan on a weekly basis so that time can be organized well, especially in note-taking and active participation in group work. Also, I scheduled a study plan on a weekly basis so that time can be organized well, especially in note-taking and active participation in group work.

Goals for the Next Week

For the next week, I am planning to focus on understanding the agile methodology including scrum methods which is an iterative method. Also, we as a team would be focusing on the market analysis for the upcoming project deliverables. I am also planning to learn in depth about the wide-band Delphi which can improve project accuracy.