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**Dates Rage of activities:** 23-September to 04-October 2024

**Date of the journal:** 05-Oct-2024

**Key Concepts Learned**

Software projects are complex with their own set of challenges which might impact the projects budget, time, resources, quality, & technology. These are called as “**Risks**”, and it’s the responsibility of Project Managers to develop **Risk mitigation** during project execution. We learn about the **potential causes** of the risks which can vary from cost constraints, resource issues, poor management among many others. It is important to understand the **categories** of possible risks so that they could be tackled in an appropriate manner. We also need to perform **Risk analysis** to understand the potential impact, the risk can have on the project and possibility of its occurrence. As such, we need to perform both the **qualitative** as well **quantitative** analysis. By doing so, we can perform **cost-benefit analysis** to understand the **Risk Prioritization**. We learn the various **strategies** of responding to the risks called as **Risk Control**. These include acceptance, avoidance, transference, & mitigation.

In the next chapter, we learn about the relationship between the **Change Requests** and **Configuration Management (CM)**. We learn about the most important considerations regarding the changes in the project. We learn about the **source of changes**. We learn about the need of Configuration Management. For a Project Manager, it is important to know about the **poor practises** as well as the **characteristics** and **benefits** of a good CM. They should be aware of the **purpose** of a CM. We also learn about the **key functions** of CM which are a) define baseline, b) mechanism to document and organize the changes, c) mechanism of maintaining the records of change, and d) mechanism of monitoring the changes.

**Application in Real Project**

Based on chapter 4 & 5, we have the following learnings. A project manager uses risk management practises to anticipate issues, quantify them according to some classification, prioritize their resolution and setup strategies to eventually tackle them. And thus, allow the project to continue as envisaged without interruption. As a result, risk management allows the project stability, giving confidence to all stakeholders and eventually resulting in project success. For example, when developing a mobile application development, there are often changes in the library API calls which could delay the app release. A project manager would take these changes into account while planning the project and thus ensure the timely delivery. Similarly, often developers might use shortcuts and use sub-optimal solutions resulting in low quality product. Project Manager might anticipate these issues and thus invest in quality assurance team or use peer-reviewing to ensure high quality product. Another example is that a project Manager might consider that some employees might leave the company and thus keep additional resources in hand. Thus, we see that there are multiple risk areas for a project manager to look against to ensure the success of a software project.

**Peer Interactions/collaboration**

While talking to one of my peers, we discussed concrete examples of some features implemented by their Project Manager that did result in some benefit for the project. One of the examples provided was the initiative of a certain project manager to utilise UI automation to run frequently executed test cases. This reduced the burden on the testing team and resulted in regression testing for each user story being implemented by the developers before being integrated into main branch. This resulted in issues being caught at an early stage and thus increasing the quality of the code as well as better work life balance for testing team.

**Challenges Faced**

One of the challenges I faced was understanding how a change is formally documented in a large software project. What are the different tools in a large organization for this purpose. One of the common tools as suggested by discussion forums is to use ‘Jira’. There are other tools, but this one seems to be very common. I learned some ways to monitor changes, but deep understanding of one specific tool would require using it in a given context over a long time.

**Personal Development Activities**

Going through chapters 4 & 5 of the book “**Software Project Management – A process-driven approach**” have helped me understand the benefits of Risk Management in software development as well as in personal life. Implementing some sort of strategies and planning, we can be better prepared for any eventualities. Doing so would increase the probability of success and reduce stress. At the same time, configuration management teaches us about the importance and benefit of documenting the causes of change request.

**Goals for the Next Week**

The personal goal for next week for me would be to learn more about ‘Jira’ tool and its use in Software Project Management. Being one of the most common tools in the industry would benefit me in the long run and prepare me for future work experience.