**Learning Journal**

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**Course:** Software Project Management

**Journal URL:**

**Dates Rage of activities:** 7 Oct – 31 Oct

**Date of the journal:** 1 November 2024

**Key Concepts Learned**

During the project planning phase, key concepts include breaking down a project into smaller, manageable tasks (using techniques such as Work Breakdown Structure - WBS), allocating time durations, estimating resources, and scheduling activities. An effective project plan must include concepts such as top-down and bottom-up planning, the critical path technique, contingency planning, and resource allocation.

Another chapter we learned in this section is Project Monitoring & Control. The key elements are monitoring a project's progress against the baseline plan, controlling variations in schedule, cost, and scope, and tracking performance with tools such as Earned Value Management (EVM). Monitoring assures data collection on progress, and control entails taking remedial action when deviations from the plan are discovered. This chapter emphasizes the value of performance indicators, variance analysis, and tools such as S-curves and Gantt charts in monitoring.

**Application in Real Projects:**

For project planning, real-world projects use these concepts to successfully manage, schedule, and distribute resources. For example, breaking a software project down into smaller tasks, calculating the effort required for each task, scheduling them while reducing dependencies, and guaranteeing optimal resource use. Gantt charts, critical path analysis, and iterative planning are common techniques used to track progress and alter plans in response to new information.

On the other hand, the monitoring and control strategies are used in real-world projects to keep them on schedule and within budget. For example, EVM can be used to determine whether the project is within budget and whether milestones are met. Project managers constantly compare actual progress to planned milestones and take remedial action—such as rescheduling tasks or reallocating resources—to ensure project goals are reached.

**Peer Interactions:**

As a part of peer interaction, a few of us classmates discussed our experience in agile software development. We mainly focused on how project planning is done in agile development life cycle and how accurate the plans are in real world projects and how can we add features to already defined graphs and charts. We tried to create a project schedule and calculate cost based on our experience. We gained a lot from this discussion, like presenting the information like Gantt chart.

**Challenges Faced:**

A few challenges I faced are mastering EVM metrics like schedule variance, cost variance, and understanding how to interpret them in real-time project tracking. Another challenge would be understanding how to allocate resources effectively while accounting for unforeseen events and avoiding overloading or underloading team members.

**Personal development activities:**

To improve my project planning skills, I reviewed a project management tool - Gantt charts and learned how some of the scheduling software work. I also reviewed some project monitoring tools such as EVM and a project management tool – Jira. It helped me better understand how software aids in applying techniques like Gantt charts and critical path method, giving a tangible sense of planning and monitoring progress.

**Goal for the Next Week:**

Some of my goals for coming week are,

* Focus on creating a Work Breakdown Structure (WBS), essential for managing tasks, dependencies, and resource allocation
* Explore methods for effective project scheduling using Gantt charts, critical path methods, and critical chain methods.
* Learn to set up a configuration management repository to maintain project documents and software versions.