**Learning Journal ( Chapter 6 - 7 )**

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**Journal URL** : <https://github.com/TazinMorshed/SOEN-SPM>

**Course: SOEN 6841**  
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| **Key Concepts Learned** | This week, I learned that a robust project plan is not just a document but the backbone of successful software projects. By using a Work Breakdown Structure (WBS), complex projects can be segmented into manageable tasks. I explored two planning approaches: top–down, which starts with an overall timeline and breaks it into tasks, and bottom–up, which builds the schedule from individual task estimates. In addition, I discovered effective monitoring and control techniques. Monitoring involves continuously collecting and analyzing performance data against baseline plans. Control, however, is about taking timely corrective actions such as resource reallocation or schedule adjustments when variances occur. A key tool for this is Earned Value Management (EVM), which quantitatively compares planned versus actual performance to detect delays or budget overruns early. |
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| **Application in Real Projects** | I applied WBS to break down project tasks in our project management tool, setting realistic timelines with appropriate buffers. This helped in clearly defining task dependencies and ensuring each iteration had a focused plan. Furthermore, I implemented EVM principles to track progress by comparing actual work against our planned baselines. This allowed for early detection of variances and timely adjustments, such as reassigning resources when needed. |
|  | Challenging Component: One of the most challenging aspects was finding the right balance between detailed planning and maintaining the flexibility required for an agile environment. I struggled with deciding how much detail to include in the project plan without making it too rigid. Additionally, gathering accurate and timely data for EVM was challenging due to the evolving nature of project requirements. This sometimes made it difficult to perform reliable variance analysis and take prompt corrective actions. |
| **Peer Interactions & Collaboration** | I participated in several productive discussions with peers where we reviewed our project planning methods and shared experiences on using monitoring tools like EVM. These interactions provided valuable insights and helped me understand how others balance detailed planning with flexibility. Peer feedback also played a crucial role in refining our work breakdown structure and scheduling approach, ensuring that our project plans were both realistic and adaptable. |
|  | Challenging Component: A major challenge was ensuring data accuracy for monitoring purposes. With project requirements evolving rapidly, it was sometimes difficult to maintain consistent reporting. Additionally, adjusting the project plan on the fly while ensuring that changes were reflected accurately in our monitoring tools proved to be a demanding task. These challenges required me to continuously revisit and refine both our planning and monitoring practices. |

### **Challenges Faced**

To address these challenges, I spent extra time studying advanced scheduling techniques and the practical application of EVM through online tutorials and case studies. I practiced creating and refining Gantt charts and network diagrams to improve my visualization of task dependencies and the critical path. Furthermore, I worked on improving my data collection methods to ensure more accurate and timely reporting, which is essential for effective monitoring and control.

### **Personal Development Activities**

This week, I focused on strengthening my technical and managerial skills by familiarizing myself with advanced Git features, including branching and conflict resolution, to improve version control in real-world projects. Additionally, I worked on enhancing my project management capabilities by exploring tools like Gantt charts and the Critical Path Method (CPM) to better track project timelines and dependencies. I also focused on improving my leadership and team coordination abilities, collaborating closely with teammates on our chatbot project, assigning tasks, and ensuring efficient communication.

### **Goals for the Next Week**

Next week, I plan to read Chapter 8 to deepen my understanding of advanced project management concepts, which will help refine our overall approach. In preparation for our pitch presentation, I will focus on making the pitch more exciting by incorporating dynamic visuals and a compelling narrative that clearly communicates our project’s value. I plan to explore real-time monitoring dashboard tools that can be integrated into the presentation to visually demonstrate our progress and metrics. Additionally, I will collaborate with peers to practice and refine our delivery, ensuring our pitch is engaging and memorable for our audience.