Student Name: Devang Shah

Course: Software Project Management

Journal URL: https://github.com/devang-1910/SOEN-6841/blob/main/DevangShah_LearningJournal2.pdf

Dates Rage of activities: 8th Feb, 2025 – 22nd Feb, 2025

Date of the journal: 23rd Feb,2025

Key Takeaways from the Course	Applying Concepts to Real-World Scenarios
This phase of the lecture deepened my understanding of **Project Monitoring & Control** and **Project Closure**, both crucial for successful software project execution. **Project Monitoring** involves tracking progress against baselines for schedule, budget, and scope using techniques like **Earned Value Management (EVM)** and **variance analysis**, widely used in frameworks like **PMBOK**. **Project Control** ensures timely corrective actions, such as resource reallocation or re-planning, to mitigate risks and maintain alignment with project goals. The lecture also emphasized **Project Closure**, which involves finalizing deliverables, managing source code versioning, and archiving key project metrics. A critical component is **lessons learned documentation**, similar to Agile retrospectives, ensuring continuous improvement by analyzing past challenges and best practices. A key takeaway was how monitoring, control, and closure collectively **enhance project reliability and efficiency**. For example, detecting scope creep early through variance analysis can prevent budget overruns. This structured approach ensures long-term success in software management.	In Agile development, **Earned Value Management (EVM)** aids sprint tracking by comparing planned vs. actual story completion. However, frequent requirement changes make variance analysis challenging. **Automated dashboards integrating Jira/GitHub** enable real-time tracking, improving adaptability and decision-making. In cloud-based SaaS projects, **project control prevents budget overruns** by monitoring resource utilization. Delays from external dependencies, like API integrations, can be mitigated through **dynamic task reprioritization and automated workload balancing**, ensuring minimal disruptions. Project closure is crucial in regulated industries like **finance and healthcare**, where versioning and archived metrics ensure compliance. **AI-driven analytics can extract insights from historical projects**, enhancing estimations, risk management, and compliance tracking. **Blockchain-based smart contracts** could further strengthen audit trails and regulatory adherence. By integrating **real-time tracking, structured control, and predictive analytics**, organizations can enhance project success, optimize resources, and ensure long-term efficiency.
Learning Through Collaboration & Peer Discussions	**Obstacles Encountered During Learning**
Engaging in discussions with peers provided valuable insights into **project monitoring, control, and closure** across different industries. One notable discussion on **Earned Value Management (EVM)** reinforced my understanding of **baseline tracking.** A peer working on an enterprise application explained how tracking cost variance helped their team detect inefficiencies early, highlighting the importance of **dynamic budget adjustments in preventing overruns.**	One of the biggest challenges I faced was understanding **Earned Value Management (EVM)** and its practical application. Differentiating between **schedule variance (SV)** and **cost variance (CV)** required extra effort, as both are interrelated but have distinct impacts on project performance. Initially, I struggled with how **baseline values** influence variance analysis, but reviewing the case study *NASA's James Webb Space Telescope (JWST) Project: EVM Challenges and Cost Overruns* helped me

Another key discussion centered on **scope control challenges in Agile projects.** A peer shared how frequent requirement changes led to delays and how backlog prioritization and real-time tracking tools helped maintain adaptability. This shifted my perspective on **structured control mechanisms for managing scope creep effectively.**

In **project closure**, a discussion on lessons learned documentation changed my approach. Initially, I **viewed closure as a final step**, but after a peer highlighted its role in improving future estimations, I realized its **significance in continuous process improvement.** Applying this insight, I now **emphasize documenting key takeaways in my projects to refine future workflows.**

These interactions deepened my understanding of practical monitoring techniques, adaptive control measures, and structured closure strategies, **strengthening my ability to apply them effectively in real-world scenarios.**

grasp their significance in project tracking. This case highlighted how **poor baseline tracking led to significant cost overruns and delays**, reinforcing the importance of maintaining accurate **EVM metrics**. Had I miscalculated **EVM metrics** in a real project, it could have led to **incorrect cost estimations, affecting budgeting and resource allocation**.

Another difficulty was **scope control in iterative projects**. Managing frequent changes without affecting timelines seemed complex, especially in **Agile environments**. I initially underestimated how **past project data** influences future decision-making, but **peer discussions** helped clarify its importance. However, I still need to refine my approach to **backlog prioritization in dynamic project environments**.

To overcome these challenges, I plan to **practice EVM calculations**, **explore real-world examples of scope management**, and **analyze case studies on effective project closure**, ensuring a stronger grasp of these critical project management areas.

Additional Learning Activities & Self-Improvement	**Goals For Next Week**
To deepen my understanding of **Project Monitoring, Control, and Closure**, I engaged in various self-learning activities. I analyzed real-world case studies, particularly NASA's **James Webb Space Telescope (JWST) Project**, to examine how weak **Earned Value Management (EVM)** led to cost overruns, reinforcing my ability to track **budget and schedule variances**. I also practiced **baseline tracking, variance analysis, and resource utilization** using **Jira** and **Microsoft Project**, improving my ability to leverage **monitoring tools for decision-making**. Additionally, I explored **scope management in Agile** by studying backlog refinement and sprint planning to mitigate **scope creep**. For project closure, I focused on best practices in **lessons learned documentation** and explored **AI-driven analytics** for extracting insights from past projects, enhancing my ability to refine **risk management strategies**. These activities strengthened my application of **monitoring, control, and closure techniques** while improving my **technical proficiency** with project management tools.	Next week, I aim to strengthen my **project monitoring and control** skills by practicing **Earned Value Management (EVM)** calculations on real-world project data and assessing my accuracy against industry benchmarks. I will also explore **scope management in Agile projects**, focusing on balancing flexibility with control through real case studies. For **project closure**, I will analyze **knowledge transfer strategies** used by organizations like NASA and Google, emphasizing **lessons learned documentation** for future project estimations. Additionally, I will build proficiency with **Jira and Microsoft Project**, focusing on **variance tracking and performance indicators**, aligning with my long-term career goal of excelling in **software project management**. By the end of the week, I aim to enhance my **ability to track project performance, manage scope changes effectively, and implement structured closure processes** for both academic and professional applications.

By documenting my progress, I have been able to track how theoretical concepts translate into practical applications, ensuring continuous improvement in the course of Software Project Management.