

Learning Journal Template

Student Name: Aman Kumar

Course: SOEN 6841 Software Project management

Journal URL: <https://github.com/amannkumar/Weekly-Journal>

Week 1: Jan 18-Jan 27

Date: 27 Jan 2024

Key Concepts Learned:

Started learning backend development in NodeJS which is based on JavaScript language. Started off with covering basics in the programming language to working on OS paths, http modules and learning about sync vs async programming,

Application in Real Projects:

The learnings would help me become a better software developer by understanding the backend of the software.

Peer Interactions:

Discussing to participate in the cybersecurity hackathon hosted by Concordia.

Challenges Faced:

Challenges faced while learning the new backend language during development and in class trying to understand some practical examples for the class SDM.

Personal development activities:

Started surfing through the internet to find ways that would help in gaining real world experience.

Goals for the Next Week:

Set specific learning goals for the upcoming week.
Consider areas where you want to focus for deeper understanding.
Build projects on NodeJS and express. Focus on classes and getting internships.

Week 2: Jan 28- Feb. 3

Date: 2 Feb 2024

Key Concepts Learned: This week I learned about software risk and the ways to manage it. I learned the kinds of risks exist for a project, the impact may risks have on a project, the strategy is needed to deal with risks.

Reflections on Case Study/course work: While I was working on my personal project, I tried to refactor code after reading the impacts of risk assessment. This helped me to increase my output in my code base by removing few bug fixes

Collaborative Learning: Reflect on collaborative experiences or group activities during the week. Consider how working with peers contributed to your understanding. The collaborative

experience with my peers has taught me the way through which we can integrate third party Api's to get the maximum output.

Further Research/Readings: To improve my backend development skills, I have started implementing a backend project by reading the documentation for the library. It taught me a lot of things such as importance of sync, async, streams, event loops etc.

Adjustments to Goals: Review the goals: Learnt a lot of basic Node.Js and javascript and express. Goals for next week: build few basic and intermediate node and express projects. Start building your own website through flutter and understand software architecture such as MVVM, MVC.

Week 3: Feb. 4 - Feb. 10

Date: 10 Feb 2024

Key Concepts Learned: This week, I plunged into the complex world of Software Configuration Management (SCM). I was able to handle the basic concepts such as version control, change management, and release management effectively. Besides, I learned about significant SCM tools, Git, Subversion, and Mercurial, that are used widely in developing software projects efficiently. I also learnt different configuration management techniques for different project. Also, the functions of configuration management were very beneficial for software development.

Application in Real Projects: If my reflective analysis of how SCM principles are implemented, then there is the understanding that they are vital in ensuring the reliability and integrity of software systems. Implementing robust version control systems can streamline collaboration between team members, facilitate code review processes, and increase overall project transparency. Though I know SCM practices are well being embraced for many technology projects, I also admit some of the challenges that one can face while implementing SCM practices in varied workflows that may require integration into existing tooling and team dynamics.

Peer Interactions/collaboration: It has been quite useful in enriching the learning experience. Considering collaboration with other students to bring me to diverse points of view and engaging me in meaningful SCM best practices and challenges has greatly redefined peer collaboration. Interactions with the classmates have broadened my horizons and deepened my understanding of the collaborative nature of software development. Looking back on the whole course, my personal growth has revealed zones of great breakthrough, like being able to apply what I have studied within the course more effectively and think about ways to overcome problem proactively. Moving forward, I will continue learning and developing my skills in software configuration management.

Challenges Faced: One of the most huge tasks this week has been in trying to understand the subtle implications of branching and merging strategies within SCM frameworks. While theoretically I'm under, it's practically tough to execute this in such circumstances. Furthermore, establishing project dependencies and team dynamics proves more challenges during effectively applying these strategies. Additionally, resolving conflicts in code and keeping code consistency between branches is a task which requires further investigation and refinement.

Personal development activities: Through supplementary readings and online tutorials in relation to enhanced SCM techniques, some efforts on such a subject ensued. Further, I have a participation in SCM-focused webinars and am actively seeking mentorship from seasoned practitioners to be able to comprehend further best practices and emerging trends in the field.

Adjustments to Goals: The goals for the previous week were accomplished. The goals for next week are work on personal website and create the frontend properly and apply all the previous work.

Week 4: Feb. 11 - Feb. 17

Date: 17 Feb 2024

Key Concepts Learned: This week, we explored project planning in software project management with key elements in creating comprehensive project plans, which included scheduling, budgeting, and manpower planning. The presentation showed how continuous planning can always adapt to project dynamics, which resonated with me because flexibility and adaptability are useful while managing software projects.

Applications of Concepts to Real Projects: Understanding the components of project planning, such as the Work Breakdown Structure and resource allocation, helped me to better organize and allocate resources in the ongoing software project. By applying the top-down and bottom-up planning approaches, there is better strategic alignment and operational efficiency, especially in task delegation and timeline estimation.

Interactions with Peers: Discussing project scheduling and budgeting challenges with peers provided practical insights into overcoming most of the common problems that come along. Sharing experiences on how one could effectively use contingency planning in response to unexpected changes in a project was particularly enlightening, fostering a collaborative learning environment.

Challenges Faced: One big challenge was getting a clear picture on how to add resources to a delayed project and its potential to further delay the project. It's a phenomenon known as Brooks' law. It challenged my previous assumptions about project acceleration and motivated me to think critically about resource management.

Personal Development Activities: To deepen my understanding, I got a simulation exercise by creating a project plan for a hypothetical software project. This hands-on practice helped me apply theoretical knowledge to practical scenarios and thus enhance my project management skills. This exercise also will help me a lot for my future understanding of software management and best ways to build it.

Goals for Future Learning: In the future, I intend to delve further into advanced techniques and tools used for project planning so that I can become more efficacious in managing complex software projects. Particularly, I want to be keen on agile planning methodologies that help in boosting flexibility and ensuring a pleasing level of satisfaction to stakeholders. This week's learning has given me depth and applicability for the use of the concepts in project planning for software project management. The lessons learned not only honed my technical skills but also broadened my perspective on the strategic aspects of project management.

Final Reflections:

Overall Course Impact:

The course until now has helped in the understanding of feasibility when it comes to software development. It has also helped me to understand the risk factors associated when it comes to building a new project and budget of the project. For the third week the course has helped me to look at the overall project through a business perspective. The course has taught me to always follow iterative model to analyze the risk associated with the deliverables. After week four, the project planning my understanding the importance of putting effort into proper detailing for better project planning, coupled with my strength in explaining the feasibility of projects and allocation of resources efficiently, has been very helpful. The iterative model for risk management is very valuable in project planning; it underlies many of the other approaches.

Application in Professional Life:

With trying to build my own personal website. The course has taught me to manage the implementation of the development to get maximum output and taught me time management. In the third week I have learnt about risk management and the ways to deal with it which involves risk mitigation, risk avoidance etc. I have tried to implement these learning in my current project to make it more efficient and for a timely delivery. The project planning techniques from Week 4 have been life-changing for my personal website. Gaining practice in the segregation of tasks with a Work Breakdown Structure has greatly facilitated the development process, optimizing time management and resource utilization. The week's talk on risk management strategies, such as avoidance and mitigation, has given me the confidence to be ready for prospective issues and reduced the time gaps during project execution.

Peer Collaboration Insights:

The Peer collaboration in the project has taught me the possible solutions to a problem and the power of brainstorming. When we talk about market analysis for the project we talked about the potential challenges the project might face and risks associated with challenges. We talked about the challenges that has helped me to think critically, problem-solve effectively, and adapt to evolving industry practices. The discussions have been very interactive and helpful, especially during project planning. It was encouraging because it honed a sense for my peers and me to come up with creative methods to tackle market analysis and potential problems within a project. This collaborative environment has sharpened my critical thinking, helping me to approach software project management as a one-stop shop for many phases and being able to adapt to market trends more effortlessly. On 15th Feb we also had a pitch related to our project.

Personal Growth:

I have undergone the study of software configuration management has challenged me to think critically, problem-solve effectively, and adapt to evolving industry practices. I have identified areas of improvement in my SCM skills and actively sought opportunities for enhancement through self-directed learning and hands-on practice. Additionally, reflecting on my experiences and engaging with peers has contributed to honing my communication and collaboration skills, enabling me to articulate ideas effectively and contribute. Since Week 3, the deep dive into software configuration management (SCM) has enriched my technical

knowledge and stimulated further analyses that may aid the effective interworking of features in the Web Development Program. I have identified and developed some gaps in SCM skills that require further learning in the respective fields. The peer collaborative sessions have refined my soft skills, sharpening my ability to present complex ideas succinctly and effectively contribute to collaborative projects.