**Journal**

**Student Name:** Aashray Munjal

**Course: Software Project Management**

**Journal URL:** https://github.com/aashraymunjal/Software-Project-Management

**Week 1:** 15th January – 21st January

**Date:** 20th January 2024

**Key Concepts Learned:**

First week was more of an introduction to the course. We discussed thecourse outline followed by some commonly used software management terms in day-to-day life. We talked about what a project really means, what’s the difference between project and a job, project phases, initial tasks, initial implementation tasks and metrics. We also saw where the SDLC really falls in the project management cycle. In week 2, we saw what’s project charter, scope and objectives. We saw a example which increases in specifications as we move from charter to objectives. We also talked about budget, costing and schedule on which a manager spends a lot of time in the initial setup phase. Also, the SMART analogy was discussed which highlighted the features of the project objective.

**Application in Real Projects:**

I've been contemplating the idea of learning a new framework, specifically Spring Boot, to enhance my skills for quite some time. I view the entire learning process as a long-term project. Now, I can consider various aspects. I'm able to create a study plan, considering factors like time, the number of hours I can dedicate, suitable study locations, and the outcomes I aim to achieve at regular intervals.

However, there are potential challenges I might face. For instance, what happens to the timeline if it takes me a considerable amount of time to set up the framework environment? How will my productivity be affected if I encounter difficulties with basic questions or concepts, leading to me spending more time than necessary?

**Peer Interactions:**

I discussed my action plan with a senior architect at an IT company, and he provided some valuable insights into the schedule. His suggestion was to take a gradual approach and establish a daily routine for practicing the basics. According to him, this method would allow me to allocate sufficient time to each topic and ensure that I meet my deadlines effectively.

**Challenges Faced:**

I have my SAAQ driving test scheduled for January 23rd. Securing this date has been a long-awaited moment, with a wait of about one year. In preparation, I've been actively watching various driving test videos to familiarize myself with common mistakes. During the evenings, I typically dedicate time to working on assignments and engaging in self-learning. However, I recognize the need to allocate more time specifically for my self-learning sessions to ensure comprehensive preparation.

**Personal development activities:**

I have been learning spring boot and revising AWS concepts

**Goals for the Next Week:**

I wish to continue my spring boot learning and start studying my other subject – Advanced Databases

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**Week 2:** 25th January – 31st January

**Date:** 26th January 2024

**Key Concepts Learned:**

We discussed efforts and cost planning for the project, exploring two main categories of estimation: experience-based and algorithm-based techniques. We conducted basic mathematical calculations to derive real-time effort and cost estimates. Additionally, we delved into functional point analysis, understanding its objectives, components, and calculation methods. We examined how to perform Unadjusted Function Point (UFP) calculations to determine a total sum. Furthermore, we explored the Variable Adjustment Factor (VAF) calculation table. Lastly, we covered Delphi and COCOMO cost modeling systems.

**Peer Interactions:**

In our recent out-of-class session, we engaged in a comprehensive discussion on project efforts and cost planning. Our exploration covered the two primary categories of estimation: experience-based and algorithm-based techniques. Collaboratively, we conducted fundamental mathematical calculations to obtain real-time effort and cost estimates. Though we didn't delve into specific numbers, our focus was on gaining an overview of how to apply these concepts. The conversation extended to Functional Point Analysis, where we delved into its objectives, components, and calculation methods. The Unadjusted Function Point (UFP) calculations were thoroughly examined to determine the total sum, alongside an exploration of the Variable Adjustment Factor (VAF) calculation table. Our collaborative effort also extended to covering Delphi and COCOMO cost modeling systems, providing a holistic understanding of various estimation approaches."

**Challenges Faced:**

During our out-of-class session, we encountered several challenges while delving into project efforts and cost planning. One notable hurdle was the complexity associated with algorithm-based estimation techniques, as understanding and applying these methods required a deeper level of comprehension. Additionally, while exploring Functional Point Analysis, grasping the intricacies of its components and calculation methods posed a challenge for some participants. Despite not delving into specific numerical examples, translating these concepts into practical applications presented its own set of difficulties. However, our collaborative efforts proved beneficial in collectively addressing these challenges and fostering a clearer understanding of the overall estimation process. The open dialogue allowed us to share insights and strategies, contributing to a more nuanced comprehension of the discussed concepts.

**Personal development activities:**

During this week, I have been exploring about cloud computing and services like AWS and Azure.

Also, I will be working with my team to finish the weekly activity before the deadline. I will be talking to one of the Teaching assistants for some project requirement clarifications as well.

**Goals for the Next Week:**

I will be going through the case studies again so as to refresh my knowledge. Also, will be going through the chapters from the textbook which we are supposed to cover in the coming week.

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**Week 3:** 28th January – 3rd February

**Date:**  3rd February 2024

**Key Concepts Learned:**

This week we talked about Risk management. We covered few formal definitions, fundamentals, Risk Assessment and their sub categories. We also discussed major types of risks in the project, their causes, identification and performed qualitative assessment which shows likely hood of risk occurrence. Then, we discussed a graph plot between risk and benefits which sets the second and fourth quadrant apart. Following slides covered risk planning, strategies – acceptance, avoidance, transference and mitigation. At last, we also discussed the risks involved in waterfall model.

**Peer Interactions:**

After our recent class discussions on risk management, my peers and I engaged in a comprehensive post-class dialogue, sharing insights and perspectives on how these concepts could be applied in our respective projects. As students, we delved into formal definitions, the fundamentals of risk management, and the intricacies of risk assessment, exploring various subcategories within this critical aspect of project planning. Drawing parallels to our enhanced AI educational chatbot project, I contemplated the major types of risks that could potentially impact our endeavor, considering causes, identification methods, and conducting qualitative assessments to gauge the likelihood of risk occurrence. We collectively explored the graph plot depicting the relationship between risks and benefits, emphasizing the significance of the second and fourth quadrants in guiding strategic decisions. Our discussions extended to risk planning and the adoption of strategies such as acceptance, avoidance, transference, and mitigation, all of which are crucial elements in navigating the dynamic landscape of AI development. Lastly, we exchanged thoughts on the risks inherent in the waterfall model, drawing valuable insights that contribute to our collective understanding of effective project management strategies.

**Challenges Faced:**

While navigating the intricacies of our AI-enhanced educational chatbot project, several challenges emerged that required careful consideration and collaborative problem-solving. One significant challenge was the complexity associated with integrating adaptive learning technologies into the chatbot, ensuring it could effectively personalize content for both educators and students. Addressing diverse learning needs and preferences posed another hurdle, requiring us to develop multi-modal interactions that catered to various learning styles, including text, voice, and visual elements.

Data privacy and ethical considerations were paramount challenges, especially when implementing real-time assessment features and tracking user progress. Striking the right balance between providing personalized feedback and safeguarding user information demanded meticulous attention.

Collaboration and communication among team members presented ongoing challenges, particularly in coordinating efforts across different disciplines and skill sets. Ensuring seamless cross-platform accessibility and integration with existing educational tools required overcoming technical obstacles and compatibility issues.

Moreover, the rapid evolution of AI technology posed a challenge in staying updated with the latest advancements to ensure our chatbot remained innovative and competitive. Continuous learning and adaptation were essential to keep pace with the dynamic landscape of AI in education.

The waterfall model, which we explored in our discussions, presented challenges related to its rigid sequential nature. Adapting this model to the iterative and evolving requirements of our AI project required strategic planning and a flexible approach.

In addressing these challenges, our team recognized the importance of fostering a collaborative and adaptive mindset. Regular communication, agile development methodologies, and a commitment to ethical practices were integral in overcoming obstacles and advancing our AI-enhanced educational chatbot project.

**Personal development activities:**

Throughout this week, our team held several group meetings dedicated to our project. My focus was primarily on researching the competition in the market, gaining valuable insights into their features and approaches. The aim was to identify unique aspects that could be incorporated into our project, elevating them to become our main selling points. Additionally, I dedicated time to addressing Exercise 3.2 from the book, applying the principles and concepts discussed in our coursework to enhance our project's strategy and development.

**Goals for the Next Week:**

I will be working on the initial deliverable for our project and will review the chapters scheduled for discussion in the upcoming class.