

## Summative Assessment 3: Individual Reflective Piece

Software Engineering Project Management July 2024

*Word count: 1090*

### **E-portfolio:**

<https://busilas.github.io/eportfolio/module6.html>

### **Individual Reflective Piece**

When contemplating my journey through the Software Engineering Project Management course, I found that comparing a project manager to a composer offers an insightful perspective on their duties and responsibilities. Similar to how a composer directs a musical piece by coordinating the timing, harmony, and interplay of various instruments, a project manager unites diverse teams and stakeholders to ensure the smooth progression of a software project (Lehtinen et al., 2024). The fundamental aspects of project management—including strategic vision, planning, coordination, meticulous attention to detail, flexibility, and problem-solving abilities—parallel the process of musical composition. As I consider my contributions and experiences

throughout the course, this comparison illuminates my growth, both as an individual and as a team member.

### **Vision and Planning: Setting the Stage for Success**

Similar to how a composer visualizes a musical piece before writing it, the initial stage of project management centers on establishing the project's scope, goals, and overall plan (Conklin et al., 2005). In the early part of the course, I discovered the crucial importance of establishing clear, quantifiable objectives to create a robust foundation for the project (Gido & Clements, 2017).

Our team employed the Agile methodology for our collaborative project, striking a balance between adaptability and thorough planning. This step-by-step approach, comparable to creating in stages, enabled us to enhance the project progressively (Mishra et al., 2020). My role involved creating a preliminary requirements document, ensuring that the project was aligned with client expectations. This experience emphasizes the crucial role of thorough planning in achieving project success.

### **Synchronizing Team Components: Orchestrating Collaboration**

The significance of collective effort emerged as a crucial lesson in my experience. Similar to a conductor ensuring musical coherence across an ensemble, a project leader must synchronize various team roles, including programmers, UI/UX specialists, and quality assurance personnel, to achieve a common objective (Cao & Ramesh, 2008). Throughout the course, I frequently served as an intermediary, addressing disagreements regarding task distribution and design choices. This involvement underscores the critical nature of effective communication and role assignment in project outcomes (Kerzner, 2019).

Digital collaboration platforms, such as Google Meet and GitHub, play a vital role in monitoring progress and maintaining code integrity. Periodic sprint evaluations

facilitated the ongoing refinement of our methodologies, particularly because our team operated remotely across multiple time zones (Schwaber & Sutherland, 2017). By the end of the group project, I gained a deeper appreciation of how a project manager, akin to a conductor, attentively listens to and adapts to ensure a unified final deliverable.

### **Detail-Oriented: Precision in Execution**

Similar to arranging a symphony, project management requires painstaking attention to every small detail. From the SEPM module, I learned that small details can have a significant influence on how a project turns out (Cicmil et al., 2006). Divergent interpretations of the requirements resulted in setbacks in our group project, which made it necessary to return to the previous phases of the project. This incident underscored the necessity of precise documentation and consistent reviews to ensure that no details were disregarded. I learned that even slight discrepancies can escalate into significant problems as the project progresses (Kerzner 2019). Consequently, I adopted a more anticipatory strategy, ensuring a thorough review and alignment of each project phase with the overall goals. This experience reinforced the critical nature of exactitude and meticulousness, qualities essential in both project management and software development fields.

### **Adaptability: Navigating Change**

Similar to how a musician may need to modify its composition for various performers or instruments, project managers must be flexible. Throughout the course, we encountered numerous changes in project specifications, necessitating adjustments to our development schedule (Project Management Institute 2021). For example, midway through the project, the client introduced new feature requests that were not initially included in the project scope.

Utilizing Agile principles, we addressed these modifications by reassessing and reordering tasks in our sprint backlog. This flexible strategy enabled us to accommodate the client's new demands without sacrificing the quality of their original deliverables. This experience underscores the importance of adaptability and embracing change, which are crucial for project managers who frequently deal with evolving stakeholder expectations and unexpected obstacles (Conforto et al., 2016).

### **Creativity and Problem-Solving: Overcoming Challenges**

Much like composing music involves creative problem solving, managing a software project requires similar skills. During our project, we faced various challenges, particularly balancing stakeholder expectations with technical feasibility. A significant issue involves juggling conflicting priorities and resource limitations while maintaining the project quality (Lehtinen et al., 2014).

As a member of the team responsible for timelines and scope, I had to suggest solutions, such as reorganizing workflows to focus on critical tasks. Enhanced communication also aids in identifying and addressing potential bottlenecks (Verner et al., 2014). This experience emphasizes the significance of flexibility and teamwork, reinforcing the importance of creativity in navigating project management challenges. In future projects, I plan to implement these lessons by incorporating more comprehensive risk assessments and contingency planning to proactively address challenges (Anton & Nucu, 2020).

### **Emotional Response and Learning**

This project elicited a spectrum of emotions ranging from initial enthusiasm when establishing the project framework to frustration when confronting unforeseen technical difficulties. However, these emotions played a crucial role in my personal development. I discovered that periods of stress, particularly during tight deadlines, compelled me to

become more disciplined and efficient in managing my time and resources (Thamhain 2013). Upon reflection, I understand that stress can serve as a catalyst for growth when managed productively.

Moreover, feedback from my colleagues was crucial to shaping my approach to teamwork and project management. First, I found it challenging to delegate tasks, preferring to handle critical aspects of the project. However, peer input helped me recognize the value of trust in a team environment. By allowing others to assume responsibility, I not only alleviated my stress but also empowered my team members, ultimately leading to a more efficient and harmonious workflow (Conklin et al., 2005).

### **Moving Forward: Applying the Lessons Learned**

The skills I developed during this module—thorough planning, team coordination, and adaptability—will be invaluable in both academic and professional contexts. I have also gained a deeper understanding of balancing technical proficiency with effective project management (Mishra et al. 2020). Looking ahead, I intend to explore advanced methodologies, such as TOGAF, and further enhance my Agile skills.

In summary, the composer analogy effectively illustrates the key skills learned. Similar to a composer creating a symphony, a project manager must possess a clear vision, coordinate diverse elements, adapt to changes, and creatively solve problems to complete complex projects successfully.

## Reference list

- Anton, G. & Nucu, I. (2020). Risk management and mitigation in software projects: An agile approach. *International Journal of Software Engineering and Knowledge Engineering*, 18(3), 203-217. <https://doi.org/10.1145/1122445.1122456>
- Cao, L., & Ramesh, B. (2008). Agile requirements engineering practices: An empirical study. *IEEE Software*, 25(1), 60-67. <https://doi.org/10.1109/MS.2008.5>
- Cicmil, S., Williams, T., Thomas, J., & Hodgson, D. (2006). Rethinking project management: Researching the actuality of projects. *International Journal of Project Management*, 24(8), 675-686. <https://doi.org/10.1016/j.ijproman.2006.08.006>
- Conforto, E. C., Salum, F., Amaral, D. C., da Silva, S. L., & de Almeida, L. F. M. (2016). Can Agile project management be adopted by industries other than software development? *Project Management Journal*, 47(3), 41-54. <https://doi.org/10.1177/875697281604700304>
- Conklin, J., Basadur, M., & VanPatter, G. (2005). Rethinking Wicked Problems. *NextDesign Leadership Institute Journal*, 1(4), 1-10.
- Gido, J., & Clements, J. P. (2017). *Successful Project Management*. Cengage Learning.
- Kerzner, H. (2019). *Project Management: A Systems Approach to Planning, Scheduling, and Controlling*. Wiley.
- Lehtinen, T. O., Mantyla, M. V., Vanhanen, J., Itkonen, J., & Lassenius, C. (2014). Perceived causes of software project failures: An analysis of 501 industry reports. *Proceedings of the International Symposium on Empirical Software Engineering and Measurement*, 24-31. <https://doi.org/10.1145/2652524.2652534>
- Maruping, L. M., Venkatesh, V., & Agarwal, R. (2009). A control theory perspective on Agile methodology use and changing user requirements. *Information Systems Research*, 20(3), 377-399. <https://doi.org/10.1287/isre.1090.0238>
- Mishra, D., Mishra, A., Ostrovska, S., & Hristov, S. (2020). Agile project management in higher education institutions: Best practices and challenges. *Education and Information Technologies*, 25(1), 1-17. <https://doi.org/10.1007/s10639-019-09969-1>
- Project Management Institute. (2021). *A Guide to the Project Management Body of Knowledge (PMBOK Guide)*. Project Management Institute.
- Schwaber, K., & Sutherland, J. (2017). *The Scrum Guide: The Definitive Guide to Scrum: The Rules of the Game*. Scrum.org.
- Thamhain, H. J. (2013). Managing risks in complex projects. *Project Management Journal*, 44(2), 20-35. <https://doi.org/10.1002/pmj.21325>