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Course: SOEN-6841: Software Project Management

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Key Concepts Learned: We learned several core areas of project management, including Risk Management, Configuration Management, and Project Planning. We studied various risk types such as budget, cost, time, quality, resource, and technology risks, which can affect a project at any stage. The risk management process includes identifying, analyzing, and prioritizing risks to mitigate their impact on the project. We also learned about Configuration Management (CM), where the Configuration Management System (CMS) plays a crucial role in managing and controlling changes to project artifacts like software or hardware throughout the project lifecycle. CM ensures consistency, traceability, and coordination, reducing confusion among teams.

In addition, Chapter 6 introduced Project Planning, where we discussed the importance of breaking down a project into smaller, manageable tasks using Work Breakdown Structure (WBS) and the significance of top-down and bottom-up planning approaches. We explored critical path determination, resource allocation, and the importance of milestones and deliverables. The chapter also covered essential areas such as project scheduling, budgeting, manpower, and quality planning, emphasizing how these elements ensure a project remains on track.

We also learned about supplier planning, communication planning, and the quality assurance aspects of a project. These elements are integral in ensuring all parts of the project, including those managed by third-party suppliers, align with the overall goals and maintain quality standards.

Application in Real Projects: The concepts of risk management and configuration management can be directly applied to real-world software projects. Managing risks proactively can help avoid major issues that might derail project timelines or cause budget overruns. Configuration management is essential for maintaining consistency across multiple teams, especially in large-scale software projects where multiple components are being developed simultaneously. The use of WBS and critical path methods ensures that the project progresses efficiently by minimizing dependencies and bottlenecks.

For example, in a project with multiple development teams working on different modules, CM would ensure that all changes to the codebase are tracked and that any conflicts or issues are quickly resolved. The risk management process can help identify potential delays in critical tasks and plan for contingencies to keep the project on schedule.

Peer Interactions: This week, as we prepared for the upcoming project pitch, our team collaborated to discuss and assign specific parts of the project for research and study. I was assigned to focus on the market analysis, while other team members took on tasks such as project cost estimation and timeline planning. Although one team member will present the pitch, everyone is actively involved in shaping it. During our discussions, we applied classroom concepts like risk management and estimations to real-life case studies. For instance, we analyzed how a delayed product launch could lead to budget and time risks. These conversations not only helped us prepare for the pitch but also deepened our understanding of how these concepts play out in real-world scenarios. We also explored examples of how other projects managed configuration changes using a CM system, which provided useful insights for our own project planning.

Challenges Faced: One of the challenges this week was fully grasping the complexities of risk prioritization and understanding the full scope of project planning in iterative versus waterfall models. Estimating resource allocation and scheduling tasks using WBS and CPM methods proved to be more complex than initially anticipated, especially when considering dependencies between tasks and external suppliers.

Personal Development Activities: This week, I worked on improving my understanding of risk management and project planning by going over additional resources. I learned more about different ways to allocate resources and how to use critical path analysis. Spending extra time on these topics helped me get better at planning and managing projects, which will be useful as we move forward with our project tasks.

Goals for the Next Week: As the project pitch approaches, my immediate goal is to refine my research on market analysis and participate in finalizing the pitch. I will also attend team meetings to ensure our project pitch is cohesive and addresses all the necessary elements. Alongside this, with midterms approaching, I plan to revise all the chapters we've covered so far, including topics like risk management, configuration management, and project planning.