

Learning Journal

Software Project Management

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Key Concepts Learnt:

Chapter 7 (Project Monitoring & Control):

1. The project plan of a software project acts as a baseline for measuring progress. It defines milestones, schedule, budget, and performance metrics which can be considered as a benchmark for tracking the execution of project.
2. We can measure the progress of project tasks by comparing project start/end dates and budget allocations with the actual values.
3. **EVM** (Earned Value Management) is a technique which integrates schedule and cost performance.
4. Monitoring is a process which includes collecting the data to see the progress of the project and how it is going as per plan. Controlling is a process of taking actions to correct the deviations from the baseline.
5. Monitoring helps in identifying the changes in performance metrics like schedule which can cause time delays, cost which can cause budget overruns, quality which can increase the defect rates, scope which can introduce unexpected changes, and risk (unexpected events).
6. Based on the identified changes, project managers can take different actions like replanning activities, revising the baseline or terminate the project (worst case scenario).
7. The cause of identified changes and what actions were taken should be documented to maintain the transparency of project and this documentation will help in future projects as well.

Application in Real Projects:

1. Project monitoring and control helps the project managers to identify the problems early and take actions at the right time such that the project is not much impacted.
2. By doing the analysis of performance data, project managers can make decisions like resource allocation, budget adjustments, and schedule modifications.

3. Project managers monitor the progress which helps them to identify the potential risks in the initial stages. They can then take necessary actions to mitigate risks or develop plans to deal with those risks.
4. If project managers will analyze the project progress very closely, they can inform the stakeholders about the good or bad things which are happening in the project, and they can come on a combined decision which will benefit the project.
5. Lessons learned through monitoring and control can be used in the future projects to improve project planning and execution for improved efficiency.

Reflections on Case Study:

1. Conducting the feasibility study provided valuable insights into the technical and economic feasibility of our project. We learnt about the technology stack required and its feasibility for development within the time decided by the stakeholders.
2. Estimating development, maintenance, and marketing costs gave us a realistic understanding of the financial resources needed to launch the **Virtual Wedding Planning Concierge system**.
3. Through the proposal process, we identified the core features that will be most important to our users and prioritized them for initial development.
4. Developing the project plan and deliverables helped us to refine the scope of the project and identify potential challenges in delivering the features within the selected timeframe.
5. Creating these project deliverables made us realize the importance of clear communication and documentation throughout the project lifecycle.

Collaborative Learning:

1. We discussed different cost estimation techniques (e.g., top-down, bottom-up) as a team which helped us in arriving at a better initial project budget.
2. We analyzed the initial functionalities of the Virtual Wedding Planning Concierge system which helped us to select some features and improving the overall experience of the user.
3. We discussed market analysis that we did in the last deliverable which allowed us to gain a deeper understanding of target user needs and industry trends.
4. Working together as a team helped us identify potential risks associated with the project from different perspectives which helped us to create a better risk assessment and mitigation strategies.
5. Our team shared the learnings of collaborative project management tools with each other which helped us in efficient task allocation, communication, and overall project organization.

Challenges Faced:

1. Determining which features to prioritize within the selected time frame of the project and available resources was a significant challenge.
2. How to accurately determine costs and technology stack as tech stacks keep on changing in the market?
3. How to incorporate so many requirements figured requirements during market analysis in the first deliverable of the project?
4. Which risks are the high-impact risks and how to make plans for their mitigation?
5. Learning new project management tools required initial effort but team members supported each other in this learning process.

Further Research/Readings:

1. We need to improve our understanding of advanced cost estimation techniques for software development projects to improve budget accuracy in further projects.
2. Explore Agile project management methodologies that can provide greater flexibility and adapt to changing project requirements but making sure that cost doesn't exceed a lot.
3. Learn about user experience (UX) designs to the Virtual Wedding Planning Concierge system is intuitive and user-friendly. Explore
4. We need to stay updated on current and emerging trends in the wedding industry to identify potential feature enhancements.
5. Learn about human-computer interactions so that we can provide a better user experience from the perspective of a human using computer as a medium to solve the problem.

Adjustments to Goals:

1. Considering an iterative development approach allows for prioritizing important features for initial launch and including additional features in next releases that should be based on user feedback and how product responds in the market.
2. We will first give priority to the development of a Minimum Viable Product (MVP) that offers important functionalities and gather user feedback before putting any further development efforts.
3. We need to refine the risk management plan based on new information that we will receive, and we need to focus more on mitigating high-impact risks.
4. Emphasize an iterative design process where user feedback is incorporated throughout development to ensure the Virtual Wedding Planning Concierge system meets user expectations.
5. Invest in team skill development, particularly in areas like Augmented Reality and Virtual reality.

References:

1. Ahmed, A. (2012). *Software project management: a process-driven approach*. CRC Press. Retrieved January 22, 2024, from <https://concordiauniversity.on.worldcat.org/oclc/774289078>
2. SOEN- 6841 Lecture Slides on Moodle.