

My educational and research journey: the course Project Management

In this essay, I'd like to provide feedback regarding the Project Management course that I took as a part of my Master Program at Astana IT University. The course content was intended to teach students the knowledge required to manage projects. I learned the concepts that should be considered by project managers on projects, which are the following:

Each project has various tasks that must be executed during execution:

Project originating phase

During this phase, project managers work on defining the business need of a new initiative. The outcomes of findings are outlined in project proposal, which mainly outlines description of work, business case, alternatives considered, risks, as well as initial estimation of costs of resources and schedule. As a part of my educational journey, I had a practical experience of developing such document for a project that is intended to develop laboratory works for an IT course in Astana IT University.

Project initiation phase

The next phase in a project development activity is initiating a project. At this phase, a project manager work on getting required resources to start works. Namely, a business case document is developed, which explains why the project is needed, its objectives and the return of investment. Also , a feasibility study is performed to identify whether it is possible to achieve the intended outcome considering the given budget and resources. Besides that project managers should get on boards required resources and prepare an area to perform works, such as finding an office space. For my project purposes, I worked on outlining the business need of developing laboratory works for students, which will bring financial benefits for AITU. I learned how to make required financial calculations, and identify what kind of team members I would need for this project.

Project Planning phase

After completing the project initiation phase, project managers need to work on project planning phase. During this stage, it is required to develop a list of tasks that must be completed during the project. In my work assignments, I was developing a scrum project, and in scrum initiatives, I understood that planning the list of tasks is done by product owners and development team members. Mainly, product owners are responsible for managing a backlog, which is a list of prioritized tasks that should be implemented. Next point is to develop a project budget. The financial calculations should consider all costs related to purchasing an equipment, and allocating required manpower resources. It is essential to consider the risks prior to initiating a project and every project manager should have a risk mitigation plan. I understood that in scrum projects, the management of risks should be done iteratively since during a project execution there is a high risk that new risks might occur. All the risks should be raised on time, and mitigation steps should be outlined. During the planning phase, project managers define the methods how team members of scrum teams will communicate. As a part of my task, I defined that list of tools that will be used to communicate amongst team members. I also outlined the type of risks that might occur if something goes wrong with developing laboratory tasks for AITU. Moreover, project managers develop a project schedule that has a list of tasks with defined target dates of completion. Since I was developing a scrum project, I created a release plan that has a list of user stories and planned completion timeline. The release schedule defined the list of features, which are laboratory works. Besides that I defined the detailed outline of releasing the tasks considering their complexity and sequencing. From the readings, I understood that scrum tasks are assigned prior the start of each sprint, so it is essential to adjust the release schedule considering any changes or constraints that occur during the project initiation.

Project execution phase.

The last phase is the largest and probably the most complex phase comparing to the previous phases. During this phase, the main part of works are completed. Project managers should ensure that works are done according to the predefined task schedule and they should ensure that any required adjustment are reflected in the task schedule accordingly. Project managers should ensure that are

- executed per agreed timeline and within the allocated budget
- the works are performed as per agreed quality level

In scrum projects, the quality of projects is controlled by well defined product backlog and this is primarily done by the role of a product owner. Product owners primary responsibility is to manage the backlog and defined well-written and prioritized user stories. Also, the quality of work is assured when team members show the completed work to customers and management team, who are expected to provide on-time feedback.

There is a high chance that some changes might occur while executing a project, and after completing the project, some change management activities should be completed. So project managers should consider how to manage the changes within an organization, so all changes are communicated to the interested stakeholders.

During the execution phase, project managers are responsible for purchasing the required materials and acquire required services in order to complete the outlined works. Managers should consider that required resources are in place. Here, I'd like to mention that resources are not only team members, but also supplies, equipment and materials that are needed for the project. Project managers should ensure that team members have the required channels of communication as well as they are communicating project related activities to each other. In scrum projects, this is ensured by scrum ceremonies, such as daily stand-ups, sprint retrospectives. The communication of these meetings is done iteratively on daily and bi-weekly basis.

Another important aspect is to ensure that the work progress is done as per agreed schedule. Project managers use various tools for this task. In scrum, for example, team uses burn-down and burn-up charts, which show whether the work is done in an expected phase. Mainly, if work progress is not going in an expected phase, project managers should take required actions to resolve any impediments.

The last few tasks that are managed during this phase are transferring deliverables, confirming project completion, updating project documentation and ensuring the list lessons learned. In most projects, this might be a challenging phase since project managers should ensure that stakeholders are ready sign off project completion and accept the developed deliverables. During this step, there is a high

risk that stakeholders might not accept some works because they would ask to complete some works, which were not originally in scope of work. Project managers should ensure that this risk is mitigated by thoroughly working on the list of in-scope work items. In scrum projects, the backlog is updated iteratively, so there is lower risk of having some misalignment with stakeholders during the project completion. Also, the lessons learned items are discussed iteratively during sprint retrospectives. The last sprint includes a project retrospective that is intended to define the whole list of items, which were done well and what could have done better.

Overall, this course was quite interesting as I learned the type of activities that must be completed during various project phases. In particular, I liked that I was able to apply that knowledge in practice by developing a scrum project that is intended to develop laboratory assignments in AITU. Moreover, I learned about the various tools by project managers, such as Miro and Jira.