**Learning Journal**

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**Course:** Software Project Management (SOEN – 6841)

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**Key Concepts Learned:**

During the first week major focus was given to understand what a project is and what are the various processes in a project management. The key takeaways from chapter one and two are:

* Any activity that is started to achieve any specific goal using limited resources, budget, time and end user satisfaction can be considered as a project.
* Software project management is the application of project management and software engineering to develop a product using minimal resources and time.
* Software project management has numerous challenges to itself as it came to existence for only for last 60 years and it is a field where new levels of innovation and creativity is required.
* The key components in a project management process are, project initiation, project planning, project monitoring & control and project closure.
* During the project initiation for a software application development the project charter, project scope, project objectives and initial planning and effort estimates are prepared, either if its developed in-house or outsourced, as these applications are built for limited end-users with specific requirements, and has a considerable impact on the organization that uses this application.
* During the project initiation for a software product development the project scope, risk planning and effort estimates are done, since these products are mainly developed by analyzing the market opportunity.
* During the project initiation for a software product implementation the project character, project scope, project objectives and initial risk planning and effort estimation are done. For bigger COTS applications a plain vanilla kind of implementing is done that offers customization.
* The software project planning is mainly depended on the software life cycle chosen, i.e. either waterfall or iterative. And a complete planning can only be done once the project team has the entire requirements on cost, effort and quality required.
* The Seven Tools of Quality is mainly used for the project process measurement and they are check sheets, histograms, pareto charts, cause and effect diagrams, scatter diagrams, control charts and graphs.
* Project Charter includes the entire information required to build the ultimate product. It should capture the project goals, objectives, major responsibility allocation etc. These information helps the stake holders to have realistic expectations for the product.
* To maintain a stable project scope is necessary to have a clear understanding of the requirements and the quality required for the work. Any additional feature requirements that come in between development should come from a proper channel and this needs to be communicated with the stakeholders.
* At the completion of the project the team should confirm that they have adhered to the project objectives that were defined by the stakeholders.
* An initial project size estimation is required to throw a general idea about the project, such an estimated line of codes or function points required. This can also help the stakeholders to take crucial decisions.
* The initial project efforts and cost depends on the professionals who are going to work on the project and the number of hours they are going to put in. Insights from previous projects can also be used here to give more clarity on an estimated cost at the initiation stage.
* An initial project plan is expected from the project manager that list out the resource and effort requirements and targeted timelines. This helps to build more confidence on the client about the project.
* In an iterative model project planning is a low-key affair at the lowest level, where each iteration brings out a part of the functionality of the entire product. But at the top level where the entire product is conceived planning plays a major role.
* The active engagement of stakeholders is crucial for the success of any project. They are more actively engaged during the start of the project and will have more active focus on the project if they observe if the project gets slides to the wrong direction.
* Conducting a feasible study is so vital at the intimation phase to figure out if the project has the chances to reach the desired goal, rather than to be abandoned at a later stage.
* When the project requirements are not clear it is ideal to split the project in two parts, where the first part can work more on gathering the required information and the second part can engage with the implementation of the software product once the latter is completed.

**Applications in Real Projects:**

Based on the information conceived from the first two chapters it is very much important to apply project initiation and the other project management steps when a new project is being built or an existing project is planned to be re-architected or to include new functionalities. A proper project initiation will help the team and stakeholders in building a successful project rather than facing a failure down the road

**Peer Interactions:**

Had an interaction with few colleagues to figure out their experiences while working on their previous project engagements. Basically, to get some insights on how their project development was planned and carried out during the initial stages. The active interactions between the client always helped them in figuring out the exact business requirements.

**Challenges Faced:**

Wanted to know more about software product development, as it was stated some products are developed based on the research on market requirements. But what if the requirements change during development process.

**Personal development activities:**

Started exploring a new project management tool called Trello

**Goals for the next week:**

Get in touch with the team members of the assigned project activity. Figure out the next steps with them in making progress with the project and actively apply the concepts learned.