Software Project Management

Learning Journal

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Course: Software Project Management

Journal link: https://github.com/AdarshPawar/LearningJournal.git

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Concepts Learned

* **What makes a given task to be considered as a project vs a job?**
  - A task is a job if it is repetitive and the outcome is certain whereas a task is said to be a project if it is non-routine, complex, planned task that requires creative thought put into it.
* **Difference between IT and software projects**
  - IT projects involves not only developing software but also buying computer hardware, installing software on it, configuring and hosting it over a network
  - Software projects develop/maintain a software product by applying good project management principles as well as software engineering principles
* **Are software applications and software products the same thing?**
  - When software is developed for use by the organization itself, it is known as a software application. It is created based on end-user requirements.
  - When software is developed for the purpose of selling to customers and not for use by the organization itself then it is known as a software product. It is made using market research data.
* **Classification of software development process and their impact at different levels**
  - Organization processes - Top-level processes that influence working of a project from outside that strive to make sure that software projects be completely predictive and measurable
  - Project management processes - Project management processes are the ones that help the management to see what is going on in the project and also allow them to control the project.
  - SDLC processes- SDLC processes are the development processes that actually build the application
* **Characteristics of a successful project manager**
  - A successful project manager has to be able to understand project management, understand software engineering, understand technology and tools, manage team, customer and suppliers and should be able to work under organization framework

- **Why software development process are not enough to successfully complete a project?**
  - Software engineering processes define structure, steps, and procedures to do various tasks in software development, but lack the ability to schedule, plan, and control themselves and this is where project management processes come in.
- **Importance of management metrics for a business unit**
  - Management metrics are used to improve productivity of the business unit and also improve quality of its products or services which enables it to stay afloat in a fierce market
  - Eg: Seven sheets of Quality - Clean Sheets, Histogram, Pareto charts, cause and effect diagrams, scatter diagrams, control charts and graphs
- **What is a project charter, scope and project objectives?**
  - The project charter describes the project goals, project objectives, major responsibilities allocation, etc. It captures information for the entire effort to build the product even if done iteratively.
  - The project scope describes number of features and the quality level of the product through which the volume of work is determined.
- **Estimation of project size, effort and costs and the schedule for completion**
  - Project costs are directly related to size of the project. The amount of effort needed to build the software product is the most crucial aspect for the project costs. The effort estimate will thereafter determine labor cost for the project. Eg - Project division

Application in real projects

- **Understanding classification of software development process helps assess what decisions are to be made at different stages of project**
- **Practicing the described characteristics of an ideal project manager enables one to tackle large and complex projects**

* Real-world projects require the integration of software engineering processes with project management processes to compensate for the lack of self-scheduling, planning, and control capabilities.
* Implementing management metrics such as the seven tools of quality is essential to deliver high quality products and boost productivity.
* Establishing project charter, scope and project objectives is crucial to getting the project off the ground.
* Estimation of project size, effort, costs and the schedule for completion is necessary to avoid unwanted hiccups during the project

Peer Interactions

* My peers and I had an intense discussion on the different management styles practiced by their respective managers during their projects at the companies they worked for.
* We understood the different styles practiced, as well as the pros and cons of each style and why some styles are suitable for particular situations.

Challenges faced

* I had a hard time in understanding the management metrics, seven tools of quality and how they're actually used in an enterprise setting.
* Hence, I've decided to obtain additional information from the web and refer to a few YouTube videos to get an exact idea of the working of each tool.

Personal Development activities

* I have recently started implementing the software development and project management processes I've learned through a mini-project.
* Writing a charter, defining the scope and objective for the mini-project has given great insight on how to proceed further in the project.

Goals for next week

* Understand the management metrics throughly
* Transition to the next phase in the developing mini-project
* Go through chapter 3, Software Project Effort and Cost Estimation and chapter 4, Risk Management