

Lesson 6

1. What is a project? Provide at least 5 example of a project.

A project in software engineering is a temporary effort with a defined beginning and end, aimed at creating a unique product, service, or result. Projects are usually performed to address specific business needs, goals, or opportunities, and they are typically constrained by limited resources, time, budget, and scope.

Some examples of projects in software engineering include:

- Development of a new software application: This could be a standalone application, a mobile app, or a web-based application.
- Website redesign: This project could involve updating the look and feel of an existing website, as well as improving its functionality and performance.
- Implementation of a new database system: This could involve migrating from an existing database system to a new one, or developing a new database from scratch.
- Upgrade of an existing software system: This project could involve updating an existing system to a newer version, fixing bugs, or adding new features.
- Development of a custom software solution: This project could involve creating a custom software solution to address a specific business need, such as automating a particular process or integrating with other systems.
- These are just a few examples of projects in software engineering. The specific nature of a project will depend on the needs of the stakeholders, the goals of the project, and the resources and constraints that are involved.

2. Discuss the importance of having the Software Project Manager in the team.

Software Project Manager

A software project manager is a person who undertakes the responsibility of executing the software project. Software project manager is thoroughly aware of all the phases of SDLC that the software would go through. The project manager may never directly involve in producing the end product but he controls and manages the activities involved in production.

A **project manager** closely monitors the development process, prepares and executes

various plans, arranges necessary and adequate resources, maintains communication among all team members in order to address issues of cost, budget, resources, time, quality and customer satisfaction.

Let us see few responsibilities that a project manager shoulders -

Managing People

- Act as project leader
- Lesion with stakeholders
- Managing human resources
- Setting up reporting hierarchy etc.

Managing Project

- Defining and setting up project scope
- Managing project management activities
- Monitoring progress and performance
- Risk analysis at every phase
- Take necessary step to avoid or come out of problems
- Act as project spokesperson

Having a software project manager (PM) on a software development team is important for several reasons:

- **Coordination and Leadership:** The PM is responsible for coordinating and leading the team, ensuring that everyone is working together effectively and efficiently. The PM is responsible for keeping the project on track, and for making sure that everyone is working towards the same goals.
- **Resource Management:** The PM is responsible for managing the project's resources, including the team, the budget, and the schedule. The PM must ensure that the team has the resources it needs to complete the project on time and within budget.
- **Communication:** The PM is responsible for communicating with stakeholders, such as customers, business analysts, and management. The PM must ensure that stakeholders are kept informed of the project's progress, and that their needs and concerns are addressed.
- **Risk Management:** The PM is responsible for identifying and managing risks that could impact the project's success. The PM must develop strategies to mitigate these risks and ensure that the project remains on track.

- **Conflict Resolution:** The PM is responsible for resolving conflicts that may arise within the team. The PM must be able to facilitate discussions, find common ground, and help the team reach a resolution that is in the best interest of the project.
- **Decision Making:** The PM is responsible for making decisions that impact the project. The PM must weigh the potential risks and benefits of each decision and choose the best course of action for the project.

In short, the PM is the key person responsible for ensuring the success of the project. The PM must have strong leadership, organizational, and communication skills, and must be able to effectively manage the project and its resources.

3. With your group, create a Gantt Chart that will show your group project's scheduling (refer to Lesson #5 Activity #3)

