



SNS COLLEGE OF TECHNOLOGY

Coimbatore-37.

An Autonomous Institution



COURSE NAME : 19CSE401 & Software Project Management

IV YEAR/ V SEMESTER

UNIT – 1 INTRODUCTION

Topic: Project management cycle

Mrs.S.R.Janani

Assistant Professor

Department of Computer Science and Engineering



Introduction

Unit 1 Syllabus

- Introduction
- Importance of Software Project Management
- Software engineering problem
- Software product and its attributes
- Definition of a Software Project (SP)
- SP Vs. Other types of projects activities covered by SPM
- Categorizing sps
- Project management cycle
- SPM framework, types of project plan.



Project Management Cycle

Introduction to Project Management Life Cycle

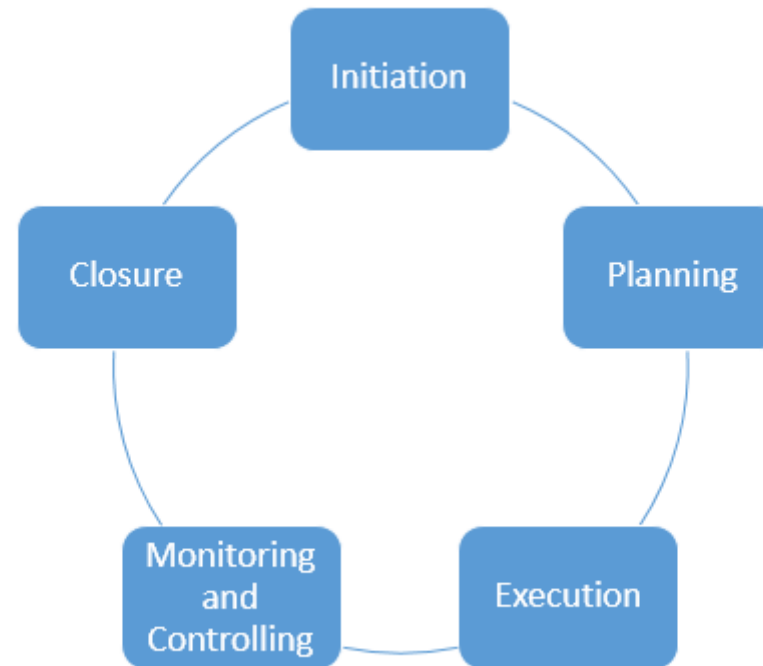
- Projects are part and parcel of our professional life. In the world of ever-changing technology and business trends, project management is in great demand.
- According to PMI, a project is defined as temporary, with a definite beginning and end in time. .
- Also, the project is unique without routine operation and is meant to meet the singular goal with a specific set of operations.
- PMI further defines project management as the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.
- Whether the project is software development, or new product launch, or even a movie, its management will progress through five life cycle phases.



Project Management Cycle

Phases of Project Management Life Cycle

Here are the five life cycle phases of project management:





Project Management Cycle



1. Initiation Phase

This is the starting point of the project. The project gets conceptualized in this phase.

In this stage, the following steps are implemented:

- The project idea is either created, or the client approaches the idea. The idea can be the solution to an existing problem or a new opportunity in business (e.g., a new smartphone model launch).
- A business case document is created, providing the solution to implement the idea after the brainstorming sessions consisting of the team, client, and project managers.
- Project managers and concerned teams check the feasibility of implementing the project in terms of profits, cost, timeline, resources, etc.
- Once the project has passed this feasibility test, it is proposed for approval from the leadership team of the company/business unit.
- During approval, SOW for the project is signed, and the budget is allocated.

After the successful completion of the above steps, the project is moved to the planning phase.



Project Management Cycle

2. Planning Phase

This is the second phase of project management. During this phase, a detailed project plan is created. This plan includes tasks, resources required, timelines, costs, etc. In addition, further planning for prioritizing requirements is done. The Gantt chart, which indicates timelines for various tasks, is one of the important documents created for planning.

Different plans that are created depending on the type of project are:

- **Communication Plan:** A good communication plan ensures the success of the project. It determines how the information will be shared amongst the various groups involved (setting up the mail, Skype, creating a distribution list, etc.) The escalation matrix is part of this plan that is used to escalate teams for issues.
- **Resource Plan:** It identifies resources required for project and consumption and schedules to procure the resources. The mapping of human resources is outlined in this plan.
- **Quality Plan:** The plan consists of a detailed description of quality standards adopted, quality testing, and assurance used to maintain the standards.
- **Deployment Plan:** It includes the outline of deploying the project deliverables. The approach towards deployment, the responsibility of team members during and after the deployment, issue tracking, and support on the project post-completion of the project.

Post the completion of various plans, risk management is carried out depending on the criticality of the project. Identifying the potential threats and analyzing the impact of such threats occur from the part of this sub-phase. A risk management report is prepared with a plan to mitigate future threats.



Project Management Cycle



3. Execution Phase

Done with the project idea finalization and planning. Now it's time to set to work. In this phase, previous planning is put into action. This phase depends highly on planning. The better the plan better will be the execution.

Project managers follow the below steps in this process:

- Resource allocation and ensuring its timely delivery.
- Assigning tasks to team members on a daily basis.
- Taking daily meetings.
- Creating a status report based on daily meetings and the progress of the project.

Here the entire team comes into the picture as it starts with actual work (e.g. development of software, manufacturing). Daily targets are set; the team has to ensure to meet them; in case of delay, they have to report to project managers.



Project Management Cycle



4. Monitoring and Controlling Phase

This phase is merged with the execution phase because both occur at the same time. The main objective here is to ensure that execution is carried out per the plan. Timelines and costs adhere.

The below points are implemented during monitoring:

- Set the key performance indicators (KPI's).
- Compare the progress plan or status report with the project plan to measure KPI's.
- For any deviation from the project, reduce the deviation and redefine KPI's.
- Update the plan for any changes to meet the deadline.
- Monitor budget utilization.
- Monitor the quality of the project.



Project Management Cycle

5. Closure Phase

Now that project is completed, and it is time to deploy the project to the client or launch it in the market. This is where the collaborated efforts come to a fruitful end!! A deployment plan created in the planning phase comes into action.

The closure phase has:

- Releasing the deliverables(product/service) to the stakeholders.
- Communicating the closure to stakeholders and business partners.
- Signing off business documents.
- Releasing the team members and closing the contracts.
- Payment and documentation filing.
- Documenting lessons learned and best practices adopted during the project so that it can be used for future reference for other projects.
- Setting up support and maintenance structure as per the requirement.

So above are the project life cycle phases. Although initiating a new project may seem like a gigantic task but breaking it into phases ensures the achievable target. But these phases aren't mutually exclusive; they may overlap in practice. The execution and control phases that we have seen above occur at the same time. Likewise, the same thing can happen in other phases too.

Ref link: <https://www.educba.com/project-management-life-cycle/>

