SPM

181240116001
Vishwas Acharya

Page No.: 1
Date: / /

Assignment-1

1) What is project ? Explain Project management life cycle.

Ans ↳ A project is a group of tasks that need to complete to reach a clear result.

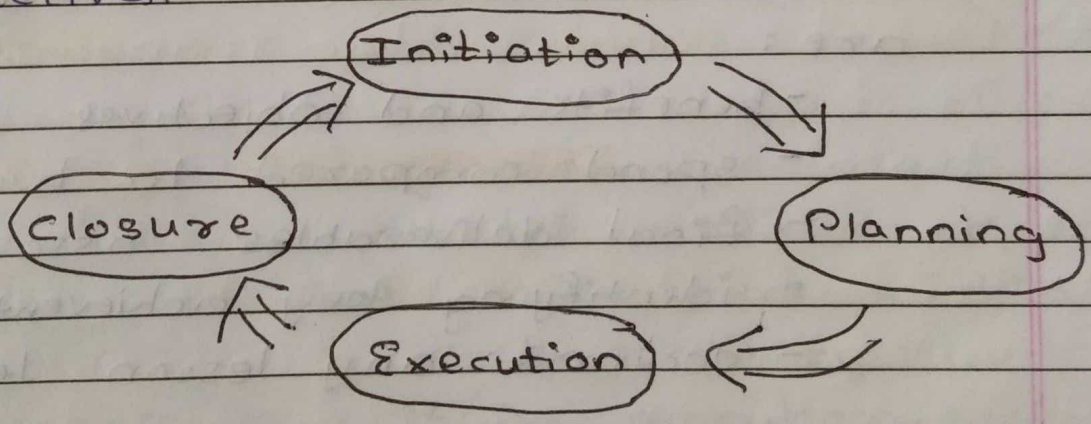
↳ It also defines as a set of input and outputs which are required to achieve a goal.

↳ Project can vary from simple to difficult and can be operated by one person or a hundred.

↳ Project usually described and approved by a project manager or team executive.

Project Management Life cycle

↳ It is a series of activities that are necessary to fulfill project goals or objectives.



- Initiation : Nature and scope of the object
  ↳ project manager develop a business case and project team is appointed.

- **Planning**: Time, Cost, resources and scheduling
  - ↳ several type of planning takes place such as:
    - Project Plan
    - Resource Plan
    - Financial Plan
    - Quality Plan
    - Risk Plan
    - Acceptance Plan
    - Communication Plan
    - Procurement Plan

- **Execution**: Process used to complete the project
  - ↳ Two things happen during this phase
    1) deliverables are built
    2) Project is monitored and controlled.

- **Closure**: Formal end of Project
  - ↳ During this phase, project managers are expected to tie up any loose ends, and perform any project closure activities.
  - ↳ Once the project is closed, the review is held and the measuring point are:
    - benefits and objectives
    - spend compared to budget
    - final deliverables assessed
    - identifying key achievents & milesto
    - document any lesson learned

-> Hence, is known as Project management Life Cycle

2) Explain the major activities carried out by Softwar Project Management?

Ans → It covers many activities which are discussed below:

1) **Project Planning**
↳ means the task performed before the construction of the product starts

2) **Scope management**
↳ It clearly defines that what would do and what would not. It create the project to contain restricted and quantitative tasks.

3) **Estimation management**
↳ This is not only about cost estimation because whenever we start to develop software, but we also figure out their size (line of code), efforts, time as well as cost.

4) **Scheduling management**
↳ It refers to all the activities to complete in the specified order and within time slotted to each activity.
↳ For scheduling, it is compulsory:
- To find out multiple tasks and correlate them
- Divide time into units.
- Assign the respective no. of work-units for every job
- Calculate the total time start to finish
- Breakdown the Project into modules.

5) Project resource management
↳ It includes:
- Create a project team and assign responsibilities to every team member
- Developing a resource plan is derived from the project plan.
- Adjustment of resources.

6) Project Risk management
↳ It consist of activites like identification, analyzing and preparing the plan for predictable and unpredictable risk in the project
↳ Several points shows the rist
- experienced team leaves the project and new team joins
- Changes in requirement
- change in technologies & the environment
- Market competition

7) Project communication management
↳ It bridges the client, organization, team members as well as stakeholders of the project.
↳ Communication should be clear and understood.

8) Project configuration management
↳ It is about to control the changes in software like requirements, design, and development of the product

↳ The primary goal is to increase productivity with fewer errors.

3) What is contract? Types of Contract in brief.

Ans ↳ As name suggests, is a management that mainly focuses on management of contract between two or many parties and to ensure that all parties meet their respective objectives more effectively and efficiently.

↳ "Contract management" as an activity is the process of managing contracts, deliverables, deadlines, and contract terms and conditions while ensuring customer satisfaction.

↳ Public agencies and private companies know that the purchasing process does not end when the contract is awarded.

↳ Effective post-award contract management is essential to the seamless acceptance of supplies and services.

↳ Contract management impacts many areas within an organization and can significantly influence its budget, operations, customer service, and public image.

4) What is difference between methods and methodologies?

Ans ↳ A methodology is a model, which project managers employ for the design, planning

implementation and achievement of their project objectives.

↳ For example, there is a specific methodology, which NASA uses to build a space station while the Navy employs a different methodology to build submarines

- **Project Methodologies**

1) Adaptive Project Framework

↳ Here, project scope is a variable and time and cost are constants it is adjusted on the way.

2) Agile Software Development

↳ The key feature of it's is that it's short-termed delivery cycles, agile requirements, dynamic team culture, less restrictive project control and emphasis on real-time communication

3) Crystal Methods

↳ It focus on team comunication, skills, people and interaction

4) Dynamic Systems Development Model (DSDM)

↳ It emphasizes more on the active user involvement during the project life cycle

5) Extereme Programming (XP)
↳ XP emphasizes on final scale feedback, continuous process, shared understanding and programmer welfare.

6) Feature Driven Development (FDD)
↳ This methodology is more focused on simple and well-defined processes, short iterative and feature driven delivery cycles.

7) Information Technology Infrastructure Lib. (ITIL)
↳ It covers broad aspect of project management which starts from the organizational management level.

8) Joint Application Development (JAD)
↳ The project team and the client hold JAD sessions collaboratively in order to get the contribution from the client.

9) Lean Development (LD)
↳ It focuses on developing change-tolerance software.

10) PRINCE2
↳ It takes a process-based approach to project management.

11) Rapid Application Development (RAD)
↳ It focuses on developing products faster

with higher quality.

12) Rational Unified Process (RUP)
↳ It tries to capture all the positive aspects of modern software development methodologies and offer them in one package.

13) Scrum
↳ The main goal of this methodology is to improve team productivity dramatically by removing every possible burden.

14) Spiral
↳ It extends waterfall model with prototypin

15) Systems Development Life Cycle (SDLC)
↳ It heavily emphasizes on the use of documentation and has strict guidelines on it.

16) Waterfall (Traditional)
↳ It has fixed phases and linear timelines, and is not capable of addressing the challenges in the modern software development domain.

5) What are the characteristic that make software project different from other project.

Ans - The difference of both project type

are given below:

Feature	Software Project	Other Project
• Tangible	not tangible	It is tangible
• End product	not clearly defined	very clearly defined
• Production	Not fixed plan, difficult to monitor	Fixed plan, which can be tracked
• Productivity	varies greatly with change in tech. or worker	does not vary much
• Project Methodology	Varies widely based on project	Typically standard
• Management methodology	It's more like managing interpersonal comm. & less adim.	It is more about schedule & good administration
• Transfer of ownership	It is tricky cause org. doesn't own the hardware	It is easy cause company owns the project.
• Multitasking	difficult	Easy
• Personalisation	Easy to change product	Difficult to change the product
• Leadership	It needs leader and managers, not just admin.	capable admin. is enough to run an ordinary project