CONTRUCTION MANAGMENT

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Problem 1:

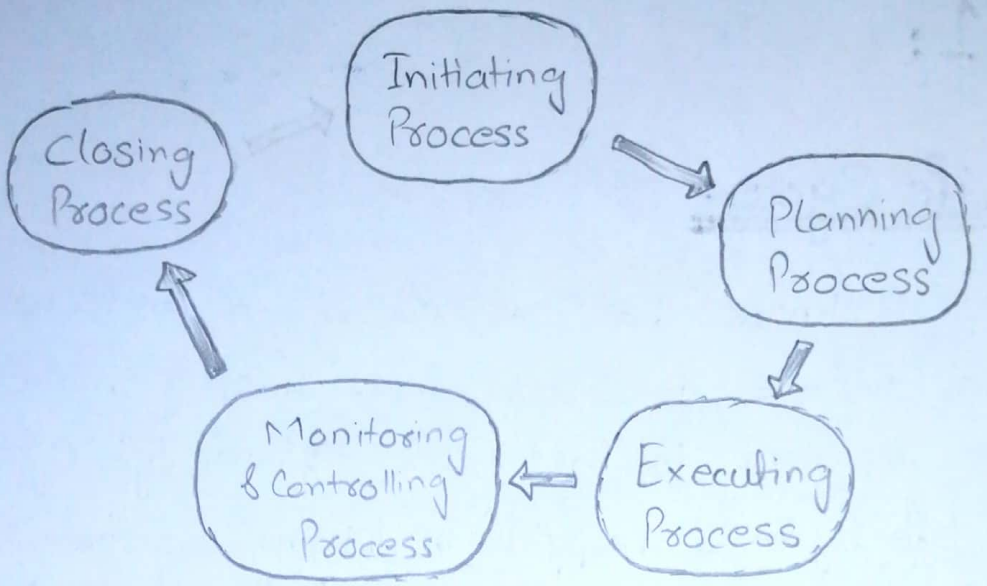
Project Life Cycle:

We all know that project is an endeavor that has a definite start and end. Thus, it makes it all more important to have well defined life-cycle in place. Life Cycle is helpfull in laying out transparent and time bound entry and exit points throughout the project stages.

No matter what project it is that you are preparing for, the project management life cycle can assist you and your team in narrowing the project's focus, keeping its objectives in order and finishing the project on time, or budget and with minimum surprises (unwanted).

A project management life cycle as defined in the PMBOK by Project Management Institude (PMI) consists of 5 phases;

- Phase 1 => Initiation
- Phase 2 => Planning
- Phase 3 => Execution
- Phase 4 => Monitoring and Control
- Phase 5 => Closure



Project Life Cycle

Phase 1: Initiation:

Initiation is the first phase of project life cycle where the feasibility and the business value of the project are determined. It's a first stage where you figure out the "Why" of the project's existence. You map out the project objective, pick a manager, and clarify your approach. They key deliverable of this stage is the "project charter."

It is the "Project charter" which explains;

- Why a project was undertaken?
- What problems needs to be addressed?
- What specific strategic gaps and initiatives needs to be served?
- Who are the key stakeholders, sponsors and project the team?

etc.

Phase 2 : Planning :

Planning is the second yet most important phase in the project managment life cycle. Planning is at the heart of the project life cycle and tells everyone involved where you're going and how you are going to get there. This is where you use your PM knowledge to scope, create a WBS and map out a schedule.

Planning includes;

- Creating a project Plan
- Creating a resource Plan
- Creating a financial Plan
- Creating a Quality Plan
- Creating a Risk Plan etc.

Phase 3 : Execution :

During third phase, that of implementation, the project plan is put into motion and the work is performed in concrete, following the steps structured in the planning phase. This is the "do" phase of project where you actively track assigned tasks and ensure that the project stays on course. You'll hold meeting, send out status reports and ensure that the project runs smoothly.

Phase 4: Monitoring and Control:

The control phase runs alongside the execution phase and is focused on monitoring the project's progress. You'll monitor milestones, goals and activities to keep the project on track.

Phase 5: Closure :

In this fifth and final phase, you'll hand over all deliverables to stakeholders and formally close the project. You'll also review the project for lapses, insights and positives. The key deliverable in this stage is the project report.

During this closing phase, the emphasis is placed on;

- The final results
- The delivery of project documentation
- The termination of supplier contracts
- The release of project resources
- The communication of the closure of the project to all the stakeholders.

Problem: 2:

Major Types of Construction Projects:

There are four major types of constructions each with its own requirments and characteristics; which are;

1. Residential Building
2. Institutional and commercial Building
3. Specialized Industrial Construction
4. Infrastructure and Heavy Construction

1. Residential Building:

The first stage of construction is residential housing construction which involves building, repairing, and remodelling of structures for the purpose of housing people, supplies or equipment.

Residential Buildings include;

- Apartments
- Townhomes
- Condos
- Nursing homes
- Dormitories etc.

Also garages and outbuildings like utility sheds are considered as residential Construction.

As mentioned above, residential construction also involves repair and installation of utilities like water as electricity around the structure.

2. Institutional and Commercial Building:

This types of construction encompasses projects schools, rej sports arenas, shopping centers, hospitals, stadiums, retail stores and skyscrapers.

like the residential housing construction, institutional and commercial Building involves both putting up of new structures and repair and maintenance of existing structures. Typically, a project like a retail store is usually commissioned by a company or private owner. Other projects such as stadiums, schools and medical facilities are often paid for and managed by both local and national government.

3. Specialized Inclustrial Construction:

The third type of construction is specialized industrial Construction which entails buildings structures that required a high level of specialization as well as technical skills in planning, construction and design.

Typically, this type of construction is carried out by for-profit or industrial corporations. For instance, a chemical industry can build oil refineries and power generation industry can build structures nuclear power plants and hydroelectric power plants, which are examples of Specialized Industrial Constructions.

4. Infrastructure and Heavy Construction:

The last type of construction is infrastructure and heavy construction which encompanes buildings and upgrading of railways, communications and roads, railways to the sorroundings of a city or existing buildings construction. Such type of constuction usually done due to the public interest and is often executed by government agencies and large private corporations.

Some other projects that fall under this types of construction include tunnels, bridges, highways, etc.