**ASSIGNMENT:- 1**

**Q. Explain main objectives (need) of Project management.**

* The successful development and implementation of all project’s procedures[.](https://blog.planview.com/work/project-management-process/)A project, regardless of its size, generally involves five distinctive [project life cycle phases](https://blog.planview.com/project-management-life-cycle/) of equal importance: Initiation, Planning and Design, Construction and Execution, Monitoring and Control, Completion. The smooth and uninterrupted development and execution of all the above phases ensures the success of a project.
* Productive guidance, efficient communication and apt supervision of the project’s team. Always keep in mind that the success or failure of a project is highly dependent on teamwork, thus, the key to success is always in [project collaboration](https://blog.planview.com/collaboration-techniques-improve-performance/). To this end, the establishment of good communication is of major importance. On one hand, information needs to be articulated in a clear, unambiguous and complete way, so everything is comprehended fully by everyone and on the other hand, is the ability to be able listen and receive constructive feedback.
* The achievement of the project’s main goal within the given constraints. The most important [project constraints](https://blog.planview.com/common-project-constraints-and-how-to-identify-yours/) are, Scope in that the main goal of the project is completed within the estimated Time, while being of the expected Quality and within the estimated Budget. Staying within the agreed limitations always feeds back into the measurement of a project’s performance and success.
* Optimization of the allocated necessary inputs and their application to meeting the project’s pre-defined objectives, is a matter where is always space for improvement. All processes and procedures can be reformed and upgraded to enhance the sustainability of a project and to lead the team through the strategic change process[.](https://blog.planview.com/work/project-management-change-management/)
* Production of a complete project which follows the client’s exclusive needs and objectives. This might mean that you need to shape and reform the client’s vision or to negotiate with them as regards the project’s objectives, to modify them into feasible goals. Once the client’s aims are clearly defined they usually impact on all decisions made by the [project’s stakeholders](https://blog.planview.com/project-management-stakeholders/). Meeting the client’s expectations and keeping them happy not only leads to a successful collaboration which might help to eliminate surprises during project execution, but also ensures the sustainability of your professional status in the future.

**Q. Explain drawbacks of Waterfall model.**

The disadvantage of waterfall development is that it does not allow much reflection or revision. Once an application is in the testing stage, it is very difficult to go back and change something that was not well-documented or thought upon in the concept stage.

The major disadvantages of the Waterfall Model are as follows −

* No working software is produced until late during the life cycle.
* High amounts of risk and uncertainty.
* Not a good model for complex and object-oriented projects.
* Poor model for long and ongoing projects.
* Not suitable for the projects where requirements are at a moderate to high risk of changing. So, risk and uncertainty is high with this process model.
* It is difficult to measure progress within stages.
* Cannot accommodate changing requirements.
* Adjusting scope during the life cycle can end a project.
* Integration is done as a "big-bang. at the very end, which doesn't allow identifying any technological or business bottleneck or challenges early.

**Q. Explain Atypical life cycle.**

Once a product is developed, it typically goes through the four stages of the product life cycle—from introduction through decline—before eventually being retired from the market.

1. Introduction

Once a product has been developed, it begins the introduction stage of the PLC. In this stage, the product is released into the market for the first time. The release of a product is often a high-stakes time in the product's life cycle, although it does not necessarily make or break the product's eventual success.

2. Growth

During the growth stage, consumers start taking to the product and buying it. The product concept is proven as it becomes more popular, and sales increase.

3. Maturity

When a product reaches maturity, its sales tend to slow, signaling a largely saturated market. At this point, sales may start to drop. Pricing at this stage tends to get competitive, so profit margins shrink as prices begin to fall due to the weight of outside pressures like increased competition and lower demand. Marketing at this point is targeted at fending off competition, and companies often develop new or altered products to reach different market segments.

4. Decline

Although companies generally attempt to keep their product alive in the maturity stage as long as possible, eventual decline is inevitable for virtually every product.

In the decline stage, product sales drop significantly, and consumer behavior changes, as there is less demand for the product. The company's product loses more and more market share, and competition tends to cause sales to deteriorate.

**Q. Explain in brief Stage gate process.**

The Stage-Gate model is a technique applied to new product development projects that serves to create more value. Its strength is that it genuinely improves an organisation’s ability to convert innovative ideas into practical applications and new products, using a roadmap comprising various deliverables (“stages”). When executed correctly, it enables a continuous flow of innovation and new product creation to be maintained.

It is accordingly considered to be an “industry standard” in product innovation, hugely popular and adopted in numerous industry sectors by businesses of all sizes.

The Stage-Gate technique breaks new product development projects into five phases:

1. **Scoping**, where the relevance of the idea is assessed, its scope and feasibility are clarified and evaluated, and the market and competition evaluated.
2. **Business case creation**, entailing more in-depth investigation so as to build a business simulation, including identifying customer and end-user requirements, determining product positioning, defining product specifications, and project scheduling.
3. **Development**, focused on new product design with preliminary tests with potential customers, and preparation of a production plan and a launch plan.
4. **Testing and validation**, during which tests are conducted (in a lab, in the factory, with customers, etc.) and product launch scenarios are ratified.
5. **Launch phase**, when the product enters the market, with monitoring of production and quality.

**Q. Explain Numeric selection method.**

The profitability is used as the only measure of acceptability by the majority of organizations using different types of project selection models. The following are some of the numeric models for project selection.

* Payback Period
* Average Rate of Return
* Discounted Cash Flow
* Internal Rate of Return (IRR)
* Profitability Index
* Other Profitability Models

Payback Period

The initial fixed investment in the project divided by the forecasted annual net cash inflows from the project is referred to as the payback period for the project. The number of years needed by the project to refund its initial fixed investment is reflected in the ratio of these quantities.

Average Rate of Return

The ratio of the average annual profit (either after or before taxes) to the average or initial investment in the project is referred to as the average rate of return. It is mostly misunderstood as the reciprocal of the payback period.

Discounted Cash Flow

The discounted cash flow method is also called the Net Present Value (NPV) method. The net present value of all cash flows is determined by discounting them by the required rate of return in this method.

Internal Rate of Return (IRR)

If there are two sets expected cash flows, one for expected cash inflows and other for expected cash outflows then the [Internal Rate of Return](https://www.businessstudynotes.com/finance/modified-internal-rate-of-return-analysis/) is the discount rate that equalizes the present value of the two sets of flows. If Rt is the forecasted cash inflow for period t and At is a forecasted cash outflow in the period t, the internal rate of return is the value of k that satisfies the following equation.

Profitability Index

The net present value of all future expected cash flows divided by the initial investment is referred to as the profitability index. The profitability index is also called the benefit-cost ratio. The[project](https://www.businessstudynotes.com/finance/project-definition-characteristics-project/)may be accepted if this ratio is higher than 1.0.

Other Profitability Models

The models just explained have different variations that fall into the following three groups:

1. Those that further split the net cash flow into components that make up the net flow
2. Those that contain particular terms to acquaint risk (uncertainty) into the assessment
3. Those that widen the analysis to view impacts that the project can have on activities or projects in the company

**Q. Explain project proposal, its example and its types.**

A [proposal](https://mavenlink.com/plans) is the document that facilitates a professional relationship between an organization and [outside contributors](https://www.mavenlink.com/software/operations-management/team-collaboration). Typically, a project proposal is the initial framework for establishing the concept of the project and includes what you want to accomplish, an explanation of objectives, and plans for achieving them. It is common for a project proposal to include a list of activities or tasks that will be associated with the project, illustrate the significance of this specific project idea, and explain the origins of this project.

A formally solicited project proposal is established in response to an official request for a new proposal. In this case, a [Request for Proposal (RFP)](https://www.mavenlink.com/project-templates/rfp) document is used to outline client demands and specific needs. A formally solicited proposal is the structured and specific response to said RFP. Having an RFP makes the entire proposal process easier. As the specifics are spelled out, project planning can prevent misunderstandings or a lack of information that may cause complications later.

An informally solicited proposal does not require an RFP. That is, there is no specific document required to outline customer or audience demands. This is the initial rough starting point when proposing a project’s viability. The major differentiator between a formal and informal project proposal is the number of details involved in planning. Informal proposals lack granular project details, such as goals, deliverables, and methods. An informally solicited project proposal can be understood as a proposal request that is lacking specifics.

Unsolicited project proposals can be compared to a cold call — no one asked for or expected to receive one, but if the audience can relate to the proposal, it can prove extremely valuable. An unsolicited proposal is typically formed from more ad-hoc activities, such as an “aha” moment or an enlightening conversation with a customer. Unsolicited proposals can be the most difficult types to write, as you will have to put extra work in to convince the audience of the project’s viability. Many times, these proposals require the most research and the most finesse, as the audience is unaware that the proposal is even coming their way.

Continuation project proposals are essentially an update or reminder for ongoing and already approved projects. This type of proposal is the simplest to construct, as it is a continuation of already existing documentation. A continuation proposal can be thought of as a check-in with the audience to ensure the correct funds are provided for the next phase, as well as discussing progress and accounting for any changes before moving forward.

A renewal project proposal is required when an ongoing project has been terminated or the resources and support behind such project can no longer be used. This proposal is more about proving that the return on investment is greater than the money being spent on resources so that the project can begin again.

A supplemental project proposal is required when more resources are required to complete a project than were originally proposed. The main goal of a supplemental proposal is to prove the value of adding resources and update the audience with a timeline based on this new plan. Many times, a supplemental proposal is required when the original project scope has grown beyond initial expectations. It can be seen as a continuation of the original proposal document.

**Q. What are different project phases?**

The 5 basic phases in the project management process are:

1. Project Initiation
2. Project Planning
3. Project Execution
4. Project Monitoring and Controlling
5. Project Closing

Phase 1: Project initiation

The project initiation phase is the first stage of turning an abstract idea into a meaningful goal. In this stage, you need to develop a business case and define the project on a broad level. In order to do that, you have to determine the need for the project and create a project charter.

The project charter is an important document consisting of details like the project constraints, goals, appointment of the project manager, budget, expected timeline, etc.

Phase 2: Project planning

The [project planning](https://kissflow.com/project/steps-to-create-successful-project-plan/) stage requires complete diligence as it lays out the project’s roadmap. Unless you are using a modern project management methodology like [agile project management](https://kissflow.com/project/agile/agile-project-management-methodology/), the second phase of project management is expected to take almost half of the entire project’s timespan.

Phase 3: Project execution

The [project execution](https://kissflow.com/project/project-execution-phase/) stage is where your team does the actual work. As a project manager, your job is to establish efficient workflows and carefully monitor the progress of your team.

Phase 4: Project monitoring and controlling

In the project management process, the third and fourth phases are not sequential in nature. The [project monitoring and controlling phase](https://kissflow.com/project/project-monitoring-and-controlling/) run simultaneously with project execution, thereby ensuring that objectives and [project deliverables](https://kissflow.com/project/project-deliverables/) are met.

Phase 5: Project closing

This is the final phase of the project management process. The [project closure](https://kissflow.com/project/project-closure-phase/) stage indicates the end of the project after the final delivery. There are times when external talent is hired specifically for the project on contract. Terminating these contracts and completing the necessary paperwork is also the responsibility of the project manager.

**Q. Differentiate project and operations.**

| S. No. | Category | Projects | Operations |
| --- | --- | --- | --- |
| 1. | Definition | A project is an endeavor that is temporary in nature, that is undertaken to produce a unique product. | Operations are ongoing execution of activities which occur after product is made to produce same result or a repetitive service. |
| 2. | Duration | It is temporary as it does not exist after product is made. This is because phase before a product is made includes a project. | It is permanent as it only exists after product is made and can go on forever. The same product is manufactured as long as it has a demand or as long as it generates profit. |
| 3. | Budget | The budget is Defined for Projects. The stake holders and management, who wish to get a product made, specify a budget for it. | The budget is not defined for Operations as the earning needs to be done to keep operations alive. This is because if there is a great response for or enough revenue and profit from product, more such products can be made. |
| 4. | Newness | It is new (new product). A project is undertaken to create a new kind of product. | It is has nothing new. This is because it is just process of making product in more numbers so as to be distributed among users. |
| 5. | Product | Unique product is created. The project is undertaken for creation of a unique product. | Same product is produced to keep system running. More numbers of the existing product are made for end-users. |
| 6. | Risk | It has more risk as it is done for first time. There is a risk of failure attached because specified thing has never been made before. | It has less risk as such products have already been made before and it is only process of creating them in greater numbers. |
| 7. | Focus | Performance is primary focus of projects. The project must be of optimal performance and meeting requirements specified by clients. | Efficiency is primary focus. The entire operation must be carried out in an efficient manner so as to reduce manufacturing time and optimizing processes for better revenue. |

**Q. Define:**

**a) Negotiation**

**b) Project portfolio process**

Negotiation is a [dialogue](https://en.wikipedia.org/wiki/Dialogue) between two or more people or parties intended to reach a beneficial outcome over one or more issues where a conflict exists with respect to at least one of these issues. Negotiation is an interaction and process between entities who aspire to agree on matters of [mutual interest](https://en.wikipedia.org/wiki/The_Impact_of_Religion_on_International_Negotiations), while optimizing their individual utilities. This beneficial outcome can be for all of the parties involved, or just for one or some of them. Negotiators need to understand the negotiation process and other negotiators to increase their chances to close deals, avoid conflicts, establishing relationship with other parties and gain profit and maximize mutual gains.

It is aimed to resolve points of difference, to gain advantage for an individual or [collective](https://en.wikipedia.org/wiki/Collective_bargaining), or to craft outcomes to satisfy various interests. Distributive negotiations, or compromise, is conducted by putting forward a position and making concessions to achieve an agreement. The degree to which the negotiating parties [trust](https://en.wikipedia.org/wiki/Trust_(emotion)) each other to implement the negotiated solution is a major factor in determining whether negotiations are successful.

Project portfolio management (PPM) has become a key component in organizations as they look to enhance their ability to manage multiple projects in an efficient and effective way. Project portfolio management process is the key to success with PPM, because it defines how an organization approaches project prioritization, resource allocation, budgeting, scheduling, and other major project components.

**Q. What are roles and responsibilities of Project manager?**

Though there are variations to project management positions across industry lines, the general project manager duties stay the same. Those responsibilities include:

Plan and Develop the Project Idea

Every project starts as an idea. It’s a project manager’s job to work with internal stakeholders and external clients to define that concept and create a process to bring it to fruition. This includes setting and managing client expectations, developing a detailed project plan, defining the scope of the project and assigning team members to specific tasks.

Create and Lead Your Dream Team

Project managers are accountable for every aspect of the project, including leading a team capable of meeting or exceeding client expectations for their vision. Successful project managers assemble and manage these individuals to make a fine-tuned project machine. If the team needs guidance, training or coaching, it’s a project manager’s responsibility to set them up for success.

In order to build and maintain a dynamic team mentality, a project manager must be able to keep open and honest communication, form working relationships and motivate anyone who needs it.

Monitor Project Progress and Set Deadlines

Organization and follow-through are a big part of a project manager’s job. From creating an accurate timeline of project completion to ensuring tasks are finished within the confines of the assignment, the project manager must remain aware of how the project is progressing.

The project manager also anticipates delays that may occur on the client side and apprises the team of any changes in the client’s needs.

Solve Issues That Arise

During every project, issues arise that need to be solved. The project manager is the first person who clients and team members turn to when something goes wrong, so it is in these professionals’ best interest to anticipate any potential hiccups before they happen. Adaptability and problem solving are key to keeping control of a project.

One issue that project managers need to have a plan for is change or expansion in a project’s deliverables throughout a project, also known as [scope creep](https://thedigitalprojectmanager.com/scope-creep/). This usually occurs when the scope of a project wasn’t properly defined from the start, and it can seriously affect the timeline and budget.

Manage the Money

Budget management is another primary project manager duty. These professionals make sure that the project gets done without excessive spending. A good project manager has mastered the art of cost efficiency.

Project managers also must be transparent and realistic about the cost so clients are aware from the beginning how much they are likely to spend.

Ensure Stakeholder Satisfaction

Project managers have the closest relationship with clients of anyone who works on a project. Because of this, it is important that they keep open lines of communication for updates and feedback. If any issues or changes arise in the timeline of a project, for example, the project manager is in charge of keeping the client up to date.

Evaluate Project Performance

After a project is finished, the project manager is responsible for evaluating its efficiency and effectiveness. With the data they’ve tracked throughout the process, they can begin to identify shortcomings and plan for ways to fix similar issues in the future. This is also an opportunity to highlight what went right, including building camaraderie and rewarding team members who excelled during the project.