Planning Phase of Project

> 💡 Planning phase is the second phase of the project cycle. There are so many things to consider in this phase. However, 3 big things to work on are SCHEDULE, BUDGET and RISK MANAGEMENT PLAN.

Benefits of Planning

→ Understanding the work needed to achieve determined goals.

→ Coordinating efforts and timelines with other teams, contractors and vendors.

→ Identifying and preparing for risks.

→ Get buy-in from key members of the project team.

buy-in : Gaining their supports for your plans

→ Demonstrating to stakeholders that team is taking care to start the project with a detailed plan.

→ By working on planning phase with your team helps your team gets stronger, and get to know each other.

Before Initiation Phase

If given steps are completed, we are ready for planning phase

→ Project manager gets assigned.

→ Goals, scope and deliverables have to approved.

→ Team members get assigned.

→ Sign off on your project charter by stakeholders

Planning Approaches

→ Top-to-down approach : Project manager determines the milestones and project tasks. Project manager makes sure that every task is handled. It is suggested that you should work with your team members.

→ Down-to-top approach : Project manager goes through every task one by one and groups similar tasks to create milestones.

Schedule

→ The project timeline, which includes the start date, the end date and dates for events in between.

Budget

→ The budget accounts for the total cost to complete the project. (How much needs to spent on elements of project steps)

Risk Management

→ Risk is inevitable.

→ Searching for possible problems related to the project and planning ahead to mitigate these risks.

→ Searching the places where trouble might occur.

Kick Off Meeting

→ First meeting in which a project team comes together to generate shared vision, gain a shared understanding of the project goals and scope, and to understand each person’s individual roles within the team.

→ Team members that are identified in the RACI chart, sponsors and stakeholders should join this meeting.

→ During kick off meeting, team harmony may be built and project manager may set expectations.

Kick Off Meeting Agenda

→ Introduction

- Team member introduction
- Project member roles

→ Background

- How the project came to be?
- Why the project matters?
- Set shared vision

→ Goals and scope

- In Scope
- Out scope
- Target Launch date
- Milestones

→ Roles

- What work everyone responsible for

→ Collaboration

- Shared project tools and documents
- Communication Expectations

→ What comes next?

- Next step that everyone needs to take

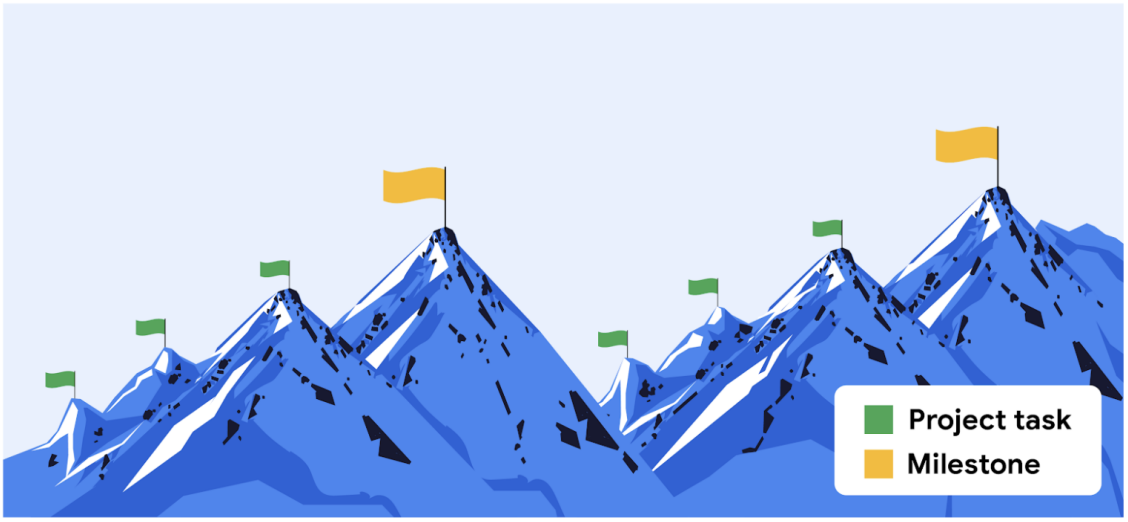
→ Questions for team members

- Clarity on meeting topics

→ After finalizing the meeting agenda, document it and send it to attendees one or two days before.

→ After the meeting, send a follow-up email that summarizes the key points and outcomes from the meeting.

Project Task Vs Project Milestones



Project Milestone

→ An important point within the project schedule that indicates progress and usually signifies the completion of a deliverable or phase of the project.

- Milestones are important points within the project schedule.
- Setting milestones gives you a clear understanding of the amount of work your project will require (workload).
- Milestones uncover areas where you might need to adjust scope, timelines, or resources to meet your goals.
- Checkpoints to show your progress to stakeholders
- Milestones help your project to stay on track.

→ How to determine and set milestones?

- Evaluating the project as whole
    - Remind yourself project goals.
    - List of what needs to be done to achieve that goals
    - Big Items that include progress are your milestones.

→ After determining milestones, the next step is to assign each one a deadline.

- Space milestones accordingly (Enough time for team member to finish tasks)

- Talk to the team members and take estimations about deadlines
- It is important to keep needs of stakeholders in mind, while setting up deadlines.

Project Task

→ An activity that needs to be accomplished within set period of time.

- Tasks are activities that need to be accomplished within a set period of time.
- Smaller items that stakeholders does not need to review are tasks.

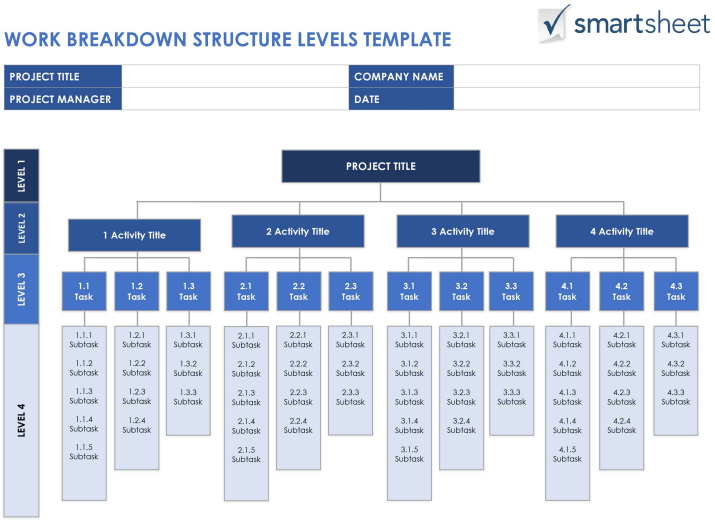
Work Breakdown Structure (WBS)

→ It is a tool that sorts the milestones and tasks of a project in a hierarchy, in the order they need to be completed.

- Sets of discrete project tasks that ladder up to each of your milestones

→ Tree Work Breakdown Structure

- 1.Level : Name of a project
- 2.Level : Milestones of a project.
- 3.Level : Tasks to reach the 2.level goals.



→ After completing the Work Breakdown Structure, assign team members to each task.

How to Assign Tasks

→ Tasks are typically assigned according to a person’s role in the project.

→ To assign tasks between two or more team members with the same roles, take each person’s familiarity with the tasks at hand into consideration.

→ Consider existing workload of the project members.

Project Plan

→ It is a document that guides project team through project and helps track progress in project.

→5 Basic Elements of the Project Plan

1. Tasks : Activities needs to be achieved
2. Milestones : important points in schedule that indicates progress
3. People : Team members and their roles
4. Documents : Relevant documents about project may be added. (RACI chart, risk management plan and so on.)
5. Time : Estimated time that will be spent on a project dates of task starting and ending.

Determining Time and Estimations

→ Time Estimation : A prediction of the total amount of the time required to complete a task.

- Schedule can help you estimate the amount of the time ot will take to complete the project.

→ Effort Estimation : A prediction of the total amount and difficulty of time it will take to complete a task.

- Unrealistic effort estimates happen when you have underestimated the amount of time it will take to complete a task. Also too much optimism may lead you to overlook potential risks that could et you plans behind the schedule.
- Communicate the team members, they have the most realistic understanding of the amount of the work required, so they will have best

estimates.

→ Buffer : Extra time added to the end of the task or project to account for unexpected slowdowns or delays in work progress.

- Task Buffers
  - Extra time tacked on to task.
  - It should be used primarily for tasks that are not managed by project team (contractors, outsources, vendors and so on)
  - Try not the add buffers to every tasks, it will lengthen your project timeline.
- Project Buffer
  - Extra time tacked on to the project.
  - Instead of adding task buffers to every project, add project buffer to end of your project.

Capacity Planning

→ After determining time and effort estimation, you need to determine whether you have the right number of people to get work done.

→ Capacity : The amount of work that the people or resources assigned to the project can reasonably complete in set period of time.

→ Capacity Planning : Refers to the act of allocating people and resources to project tasks, and determining whether or not you have the necessary resources required to complete the work on time.

→ Critical Path : List of project milestones you must reach in order to meet the project goal on schedule, as well as the mandatory tasks that contribute to the completion of each milestone.

Critical Path

→ Project managers can prioritize team member’s time by plotting the critical path of project to make team members work on their best capacity. Critical path includes the bare minimum number of tasks.

→ Determining Critical Path

- After listing all the tasks;
  - You have to work on dependencies in project and tasks can be completed concurrently. (Paralel and sequentially)
  - Find out the starting date of tasks (find out which project tasks have an earliest start date)
  - Identify whether a task has float(slack)
    - Float (slack) : It refers to the amount of time you can wait to begin a task before it impacts the project schedule and threatens the project outcome
  - Task on the critical path should have zero float. (no room for delay)
  - When you create a graph form with all the tasks you listed, longest path is your critical path.

→ Soft skills : Personal characteristics that help people work effectively with others.

- Soft skills may be used for accurate estimations
  1. Asking Right Questions : You need to ask open-ended questions to understand capacity, time and effort estimations of a task or job.
  2. Negotiating Effectively : Create a shared outcome, in this way you can create a schedule that aligns with everyone's workload.
  3. Practicing Emphaty : Understand their workload, ask if they have leace or scheduled holidays. (Always be appreciative)

Project Time Sheet

→ An anchor of a good project plan is a clear schedule containing all the tasks of a project, their owners and when they need to be completed.

→ Gantt Chart : Horizontal bar chart that maps out a project timeline. It is a highly visual representation of a project tasks.

→ Best Practices for Creating Project Plan

- Carefully review deliverables, milestones and tasks

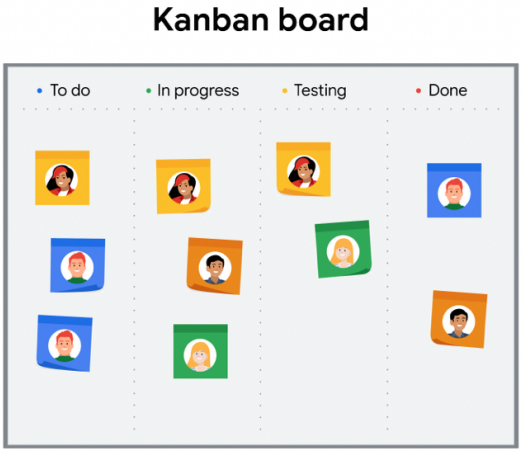
- Give yourself time to plan
- Recognize and plan for the inevitable (things will go wrong)
- Stay curious (sit down with team members and ask questions)
- Champion your plan (why it benefits team members to stay on top of the plan)

Kanban Boards

→ Kanban board is a tool to manage tasks and work flaws. Kanban is generally suitable for teams work with agile project management approach.

→ Visualizing work details

→ Ensures tasks are transferred fast and easily between team members.



→ Elements of kanban board;

- Unique Id : Task identification number
- Work Definition : What needs to be done
- Effort Estimation : Time that is needed for completing the task
- Assignee : Person who is responsible for completing the task
- Start and End dates

Budgeting

→ Project Budget : Estimated monetary resources needed to achieve the project's goals and objectives

- Budget is considered as deliverable, it is a success metric.
- Break budget down to milestones

- It may evolve through project

→ Forecast : A cost estimate or prediction over a period of time.

→ Budget creation takes place in the initiation phase of the project.

→ When creating a budget, project manager must account for;

- Understanding stakeholders need (profit, saving time ...)
- Budgeting for surprise expenses
- Maintaining adaptability
- Reviewing and forecasting throughout the project

→ Factors to consider while creating a budget

- Resource Cost Rates
- Reserve Analysis : A method to check for remaining project resource
- Contingency Method : Money that is included to cover potentially unforeseen events that are not accounted for in a cost estimate
- Cost of Quality : Cost that are incurred to prevent issues with products, processes or tasks
  - Prevention Cost
  - Appraisal Cost
  - Internal Failure Cost
  - External Failure Cost

Direct Cost

→ Cost needed for completing the project

→ Salary, wages

→ Equipment cost

→ Material cost

→ Software cost

→ Travel cost

→ Education cost

Indirect Cost

→ It does not effect project directly.

→ Management cost

→ Bills

→ Insurance

→ Security

→ For Better Budget Estimation

- Review historical data (past project data)
- Leveraging experts (gathering experts' insights to do something more effectively, reaching out the colleague)
- Bottom up : Taking all the parts of project info consideration (making a list of everything → resource and so on)
- Setting up a baseline (Baseline : Dollar amount that is used for measuring whether you are on track or not)

Budgeting Process in Order

→ Break project into tasks

→ Estimate cost of each task

→ Add estimates together

→ Add contingency and task

→ Seek approval from key stakeholders

📌 Standart practice for adding buffer time in budgeting process is generally %5 . However, it may change according to how big project is.

→ You should to add planned and actual cost columns to compare cost along the project.

→ Milestones are perfect opportunity to review the budget.

→ Fixed Contract : Paid for when certain milestones are reached.

→ Time and Materials Contract : Paid monthly based on the hours worked and other fees associated with the work (like travel and meals)

→ Cost Control : Practice when a project manager identifies factors that might impact their budget and then creates effective actions to minimize variances.

- Establish sign off plan and inform stakeholders
- Manage changes as they are made
- Accept that budget misses will happen

→ Procurement : Obtaining all the materials, services, and supplies required to complete the project.

→ Vendors : Individuals or businesses who provide essential goods and services

- Vendor Management : Every project does not need vendor management
    - Sourcing vendors
    - Getting quotes for vendors' work
    - Deciphering which vendors will fulfill company needs
    - Negotiating vendor contracts
    - Setting deadlines for vendors
    - Evaluating performance
    - Ensuring vendors are paid

Procurement Phase

→ Initiating : Planning what may be needed for your project outside of your current resources

→ Selecting : What suppliers you need and which vendors you will go through

→ Contract Writing : Contracts are developed, reviewed and signed.

→ Control : Making payments, setting up logistics and requirements to maintain quality and ensuring service agreement is being met.

→ Completing : Measuring success of procurement.

Agile Procurement

→ Collaborative with both the project team and the supplier

→ Emphasis on the relationship between these parties

→ Project team plays a larger role in identifying what needs to be procured

→ Living contract (can change easily)

Traditional Procurement

→ Focuses on standart contracts with clear terms and deliverables

→ Project management may be responsible for end - to - end procurement

→ Contracts may feature long and extensive document

→ Negotiating is more trickier

NDA (Non-disclosure Agreement)

→ A document that keeps confidential information within the organization

→ It is used for preventing the information leakage about technologies used, project details and so on

RFP (Request for Proposal)

→ A document that outlines the details of the project.

→ It includes overview of the project, desired outcome and goals, budget, deadlines, milestones and contact information.

→ Vendors can prepare proposals according to RFP and can contact you. (Vendors will review the RFP and they will provide proposals)

SOW (Statement of Work)

→ A document that clearly lays out the products and services a vendor or contractor will provide for the organization.

→ It is sent out after the vendor is selected.

→ It may be changed (living document, and make sure to include revision section)

SME (Subject Matter Experts)

→ While creating sow, project managers can consult Subject Matter Experts.

Risk Management

Risk : Potential event which can occur and can impact your project

→ It is project manager's duty to identify and plan for those risks.

Issue : A known or real problem that can affect the ability to complete task.

→ Risk (potential event) becomes an issue (known problem)

Opportunity : Positive impact of a risk.

Risk Management : The process of identifying and evaluating potential risks and issues that could impact a project.

- Risk Management Steps
  - Determine the risk
  - Analyze the risk
  - Evaluate the risk
  - Get rid of the risk
  - Monitor and contract the risk
- Question to ask while determining the risk
  - What could go wrong?
  - Who you will need to consult?
  - How the risk could be mitigated?

→ Cause and Effort Diagram : A diagram that shows the possible cause of an event or risk.

→ Risk Register : Table or chart that contains a list of risks.

→ Risk Assessment : The stage of risk management where qualities of a risk are estimated or measured.

→ Probability and Impact Matrix : A tool used to prioritize project risk.

→ Impact : The damage a risk could cause, if it occurs.

- Impact is determined an a scale of high, medium, and low.

→ Inherent Risk : The measure of a risk, calculated by its probability and impact.

→ Risk Appetite : The willingness of an organization to accept the possible outcomes of a risk.

Common Risk Types

→ Time Risk : Possibility of project task will take longer than anticipated to complete.

→ Budget Risk : Possibility that the cost of a project will increase due to poor planning or expanding the project scope.

→ Scope Risk : Probability that a project will not produce the results outlined in the project goals.

→ External Risks : Risks resulting from factors outside the company that you have little or no control over it.

→ Single Point of Failure : A risk that has the potential to be catastrophic and halt the work across a project.

→ Dependency : A relationship between two project tasks, where the start or completion of one depends on the start or completion of the other task.

- As a project manager, you should plan for dependencies.
    - Internal Dependencies : Refers to dependencies within the project that you and your team mates have control over.
    - External Dependencies : Dependencies you have no control over.

Risk Mitigation Planning

→ Finding a ways to eliminate or reduce the impact of potential risks to your project.

→ Common Ways to Deal With Risk

- Avoiding the Risks : Taking action that will eliminate the possibility of risk.
- Accepting the Risks : Accepting the possibility that risk can happen.
- Reducing or Controlling the Risks : Determining potential options to address.
- Transferring the Risks : Shifting the risk from one party to another.

→ Decision Tree : A flowchart that helps visualize the wider impact of a decision on the rest of a project.

→ Risk Management Plan : Living document that contains information regarding high level risks and the mitigation plans for those risks.

📌 If you do not do any risk management, you may not reach the goals on time or you may not modify project plan correctly.

Communication

→ The flow of information and includes what is shared, how it's shared and with whom.

→ Effective communication is clear, honest, relevant, and frequent.

Type of Communication

→ Meetings, emails, phone calls, written docs, formal presentation.

→ Make sure all types of communication types are accessible by everyone.

Communication Plan

→ It organizes and documents the process, types and expectations of communication for the project.

→ Questions that communication plan should answer

- What needs to be communicated
- Who needs to communicate
- When communication needs to happen
- Why and how to communicate
- Where the information being communicated is stared

Documentation

→ Store project documentation in a centralized place that is clearly labeled. (Master documents)

→ Knowledge Management : A way of ensuring that project data can be accessed in the future by others who need it for informing decisions or planning similar project.

→ Determine what kind of information to share with whom and when.

→ Protect sensitive data from unauthorized viewers.

→ Only share information on a need-to-know basis. (need-to-know basis : Telling someone facts they need to know at the tie they need to know them and nothing more)

Personally Identifiable Information (PII)

→ Information that could be used on its own to directly identify , contact, or precisely locate on individual.

- Email address
- Mailing address
- Phone Numbers
- Precise Locations

- Full names or usernames

📚 References

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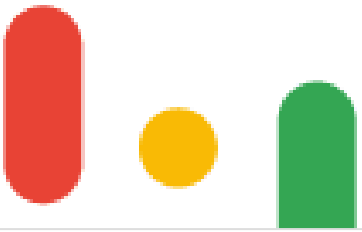

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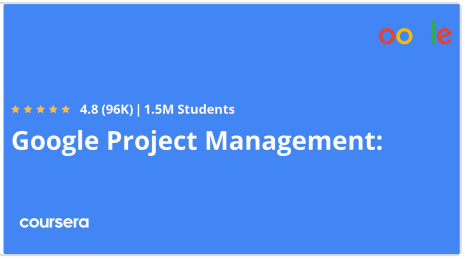

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SerhatKumas - Overview

Computer engineering student who loves coding in different fields instead of focusing on a one spesific area. - SerhatKumas

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