



Project Management Fundamentals

Key Terms

Project	A temporary endeavor undertaken to create a unique product, service, or result.
Project Management	The application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.
Stakeholder	An individual, group, or organization who may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project.
Scope	The work that needs to be accomplished to deliver a product, service, or result with the specified features and functions.
Deliverable	Any measurable, tangible, verifiable outcome, result, or item that is produced to complete a project or part of a project.
Constraint	A limiting factor that affects the execution of a project, program, portfolio, or process.

Project Management Process Groups

Initiating: Defining a new project or a new phase of an existing project by obtaining authorization to start.
Planning: Establishing the total scope, defining and refining the objectives, and developing the course of action required to attain those objectives.
Executing: Completing the work defined in the project management plan to satisfy the project specifications.
Monitoring and Controlling: Tracking, reviewing, and regulating the progress and performance of the project; identifying any areas in which changes to the plan are required; and initiating the corresponding changes.
Closing: Finalizing all activities across all of the Project Management Process Groups to formally close the project or phase.

Knowledge Areas

Integration Management	Processes that unify, consolidate, and articulate all the project management processes.
Scope Management	Processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully.
Schedule Management	Processes required to manage the timely completion of the project.
Cost Management	Processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling costs so that the project can be completed within the approved budget.
Risk Management	Processes concerned with conducting risk management planning, identification, analysis, response planning, and controlling risk on a project.
Communications Management	Processes required to ensure timely and appropriate generation, collection, distribution, storage, retrieval, and ultimate disposition of project information.

Planning Phase Essentials

Work Breakdown Structure (WBS)

A hierarchical decomposition of the total scope of work to be carried out by the project team to accomplish the project objectives and create the required deliverables.
Levels of the WBS: <ol style="list-style-type: none">1. Project2. Major Deliverables3. Subdeliverables4. Work Packages
Work packages represent the lowest level of the WBS and are the work that needs to be done.

Creating a Project Schedule

Define Activities	Identify the specific actions to produce the project deliverables.
Sequence Activities	Determine the dependencies among activities.
Estimate Activity Resources	Estimate the type and quantities of material, people, equipment, or supplies required to perform each activity.
Estimate Activity Durations	Estimate the number of work periods needed to complete individual activities.
Develop Schedule	Analyze activity sequences, durations, resource requirements, and schedule constraints to create the project schedule.
Control Schedule	Monitor the status of the project schedule, manage changes to the schedule baseline.

Risk Management Planning

Risk management involves identifying potential project risks and planning how to mitigate them.
Key Steps: <ol style="list-style-type: none">1. Identify Risks2. Analyze Risks (Qualitative and Quantitative)3. Develop Response Strategies (Avoid, Transfer, Mitigate, Accept)
Risk register: Document containing the results of risk management processes.

Execution and Monitoring

Effective Communication

Communication is essential for project success. Ensure clear, concise, and timely information flow.
Key Aspects: <ul style="list-style-type: none">Communication Management PlanRegular Status MeetingsUse of Collaboration Tools
Consider the audience and tailor your message accordingly.

Change Management

Identify Change	Recognize when a change is needed or has occurred.
Assess Impact	Evaluate the effect of the change on project scope, schedule, and cost.
Approve/Reject Change	Based on the impact assessment, decide whether to implement the change.
Implement Change	If approved, execute the necessary modifications to the project plan.
Update Documentation	Record all changes made to the project in relevant documents.

Performance Measurement

Tracking project progress against the plan is crucial for identifying deviations and taking corrective actions.
Key Metrics: <ul style="list-style-type: none">Schedule Variance (SV)Cost Variance (CV)Earned Value (EV)
Use dashboards and reports to visualize project performance and communicate it to stakeholders.

Project Closure

Final Deliverables and Acceptance

Ensure all project deliverables are completed and meet the acceptance criteria defined in the project plan.
Obtain formal sign-off from the stakeholders to acknowledge the successful completion of the project.

Documentation and Archiving

Project Documentation	Compile all relevant project documents, including plans, reports, and contracts.
Lessons Learned	Document the successes, challenges, and lessons learned during the project for future reference.
Archiving	Store all project documents in a secure and accessible location for auditing and reference purposes.

Final Reporting and Communication

Prepare a final project report summarizing the project's objectives, outcomes, and performance.
Communicate the project's closure to all stakeholders and thank them for their contributions.
Celebrate the project's success and recognize the efforts of the project team.