



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. Project 2. Major Deliverables 3. Subdeliverables 4. 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 Risks 2. 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 Plan• Regular Status Meetings• Use of Collaboration Tools |
| Consider the audience and tailor your message accordingly. |

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. |

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. |

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. |

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. |

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. |