

# PMP Exam Prep - 300

## Flashcards

### Initiating Process Group

	<b>What is a Project Charter, and why is it important?</b>			<b>The Project Charter formally authorizes the existence of a project and provides the project manager with the authority</b>	
	<b>What are the key elements included in a Project Charter?</b>			Key elements of a Project Charter include project purpose or justification, measurable project objectives, high-level requirements, high-level project description, project boundaries, key deliverables, project approval requirements, assigned project manager and their authority level, summary milestone schedule, and pre-approved financial resources.	
	<b>What is the role of the project sponsor in the Initiating process?</b>			The project sponsor champions the project, provides funding, ensures alignment with organizational strategies, and assists with high-level guidance. They also typically authorize the Project Charter.	

**How are stakeholders identified during the Initiating process?**

Stakeholders are identified through stakeholder analysis, which involves examining project documentation, consulting with subject matter experts, and using tools and techniques like interviews, focus groups, and brainstorming to understand who has an interest or influence over the project outcomes.

**Why is defining project objectives crucial in the Initiating process?**

Defining project objectives is critical because it sets a clear direction for the project, aids in setting priorities, facilitates planning, and serves as a benchmark for success evaluation.

**What is a Stakeholder Register, and when is it created?**

The Stakeholder Register is a project document listing all identified stakeholders, their information, assessment data, and classification. It is created during the Initiating process after stakeholders have been identified to help manage stakeholder engagement throughout the project.

**Describe the difference between business case and benefits management plan.**

The business case provides the justification for undertaking the project, showing the expected business benefits and reasons for project selection. The benefits management plan describes how and when the benefits of the project will be delivered and measured.

**What is the importance of assessing project feasibility in the Initiating process?**

Assessing project feasibility is important to determine if the project is viable and aligns with organizational goals and strategies. It helps in understanding the potential success and risks involved before significant resources are allocated.

**Explain the term 'project governance' within the Initiating process.**

Project governance refers to the framework within which project decisions are made. It includes the processes, standards, policies, and guidelines that define how projects are conducted and managed to ensure consistency and alignment with organizational objectives.

**How does the Initiating process contribute to project scope definition?**

The Initiating process contributes to project scope definition by clarifying the project purpose, objectives, and high-level requirements. This early clarification helps in detailed scope planning during the Planning process, establishing a foundation for project work and deliverables.

## Planning Process Group

	<b>What is the primary purpose of the Project Management Plan?</b>		<b>The Project Management Plan defines how the project is executed, monitored and controlled, and closed. It consolidates all subsidiary plans and baselines and provides guidance on how the project's scope, objectives, and costs will be managed.</b>	
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	<b>What does WBS stand for, and what is its purpose in project management?</b>		<b>WBS stands for Work Breakdown Structure. It's 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.</b>	
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	<b>What are the key components of a Scope Management Plan?</b>		<b>The Scope Management Plan includes processes for preparing a project scope statement, creating the WBS, verifying completed deliverables, and controlling scope changes.</b>	
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	<b>What is the difference between qualitative and quantitative risk analysis?</b>		<b>Qualitative risk analysis assesses the impact and likelihood of identified risks using a relative or descriptive scale, whereas quantitative risk analysis numerically analyzes the effect of identified risks on overall project objectives.</b>	
	<b>Define 'Cost Baseline'.</b>		<b>The Cost Baseline is an approved version of the project budget, excluding any management reserves, which is used as a basis for comparison to actual results.</b>	
	<b>What is the significance of the Communications Management Plan?</b>		<b>The Communications Management Plan defines the project's information and communication needs, including who needs what information, when they will need it, how it will be given to them, and by whom.</b>	
	<b>How does a Resource Management Plan contribute to project success?</b>		<b>It outlines how project resources should be categorized, allocated, managed, and released. It helps in ensuring that the right resources are available at the right times and managed efficiently.</b>	

**What is the main goal of the Schedule Management Plan?**

The Schedule Management Plan defines the criteria and the activities for developing, monitoring, and controlling the project schedule, ensuring the project's timely completion.

**Describe the role of a Stakeholder Engagement Plan.**

It identifies strategies to engage stakeholders based on their needs, interests, and impact on project success, aiming to enhance stakeholder support and minimize resistance.

**What is Earned Value Management (EVM)?**

EVM is a project management technique for measuring project performance and progress in an objective manner, integrating project scope, schedule, and cost.

**Explain the term 'Procurement Management Plan'.**

It details how the procurement processes from planning to contract closure will be managed, including types of contracts, risk management, cost determination, and selection criteria.

**What is the purpose of the Risk Management Plan?**

It outlines how risk management activities will be structured and performed throughout the project, including methodology, roles and responsibilities, budgeting for risk management activities, and risk categories.

**Define 'Critical Path Method' (CPM).**

CPM is a step-by-step project management technique for process planning that identifies critical and non-critical tasks with the goal of preventing time-frame problems and process bottlenecks.

**What is the function of the Change Management Plan?**

It describes how changes to the project will be formally defined, evaluated, and then approved, executed, or rejected, ensuring project objectives remain aligned with business needs.

**How is the Scope Baseline developed?**

The Scope Baseline is developed by combining the project scope statement, the WBS, and the WBS Dictionary. It serves as a reference for evaluating whether project deliverables meet the defined requirements.

## Executing Process Group

**What is the primary focus of the Executing process group?**

The primary focus is on completing the work defined in the project management plan to satisfy project specifications and objectives, which involves coordinating people and resources, managing stakeholder engagement, and integrating and performing activities in accordance with the project management plan.

**Describe the role of quality assurance in the Executing process group.**

Quality assurance involves auditing the quality requirements and the results from quality control measurements to ensure appropriate quality standards and operational definitions are used. It's about ensuring the project will satisfy the relevant quality standards.

**How does the project team acquire resources during the Executing phase?**

Resource acquisition involves obtaining team members, equipment, materials, or other resources necessary to complete project work. This could involve hiring, contracting, and negotiating with suppliers or vendors.



**What is the importance of team development in the Executing process group?**

Team development aims to improve team dynamics, enhance skills, and encourage collaborative working. It's crucial for building a cohesive team capable of achieving project objectives efficiently.

**Explain 'Manage Communications' in the context of the Executing process group.**

Manage Communications involves making relevant information available to project stakeholders as planned. This includes distributing, storing, retrieving, and managing project information in real-time, ensuring stakeholders are kept informed and engaged.

**What is the significance of stakeholder engagement during project execution?**

Active stakeholder engagement ensures that project stakeholders are involved in and supportive of project decisions and activities. It helps manage expectations, gain support, and reduce resistance, thereby increasing project success chances.

**How does a project manager implement changes during the Executing phase?**

Implementation of changes involves executing a change management plan, which includes evaluating change requests, approving changes, and managing the change control process to ensure that changes are smoothly integrated into the project.

**Define 'Direct and Manage Project Work' in project execution.**

**Direct and Manage Project Work involves leading and performing the work defined in the project management plan and implementing approved changes to achieve the project's objectives.**

**What is the purpose of implementing risk responses in the Executing process group?**

**Implementing risk responses involves executing risk management plans to address overall project risk exposure, minimize threats, and maximize opportunities, ensuring that risks are effectively managed and mitigated throughout project execution.**

**Describe the role of continuous process improvement during the Executing process group.**

**Continuous process improvement involves identifying, analyzing, and implementing improvements to project processes, thereby increasing efficiency and effectiveness, reducing waste, and enhancing project performance and outcomes.**

# Monitoring and Controlling Process Group

**What is the purpose of the Monitoring and Controlling process group?**

The purpose is to track, review, and regulate the progress and performance of the project; identify any areas in which changes to the plan are required; and initiate the corresponding changes.

**Define 'Performance Measurement Baseline (PMB).'**

The PMB is an approved, integrated scope-schedule-cost plan for the project work against which project execution is compared to measure and manage performance.

**What is Earned Value Management (EVM)?**

EVM is a project management methodology that integrates scope, schedule, and cost metrics to measure project performance and progress.

	<b>How is the Schedule Performance Index (SPI) calculated, and what does it indicate?</b>		<b>SPI is calculated as EV (Earned Value) divided by PV (Planned Value). An SPI greater than 1 indicates the project is ahead of schedule, while an SPI less than 1 indicates the project is behind schedule.</b>	
	<b>What does the Cost Performance Index (CPI) measure?</b>		<b>CPI measures the cost efficiency of the project and is calculated as EV (Earned Value) divided by AC (Actual Cost). A CPI greater than 1 indicates the project is under budget.</b>	
	<b>Describe the process of Integrated Change Control.</b>		<b>Integrated Change Control is a process of reviewing all change requests, approving changes, and managing changes to the deliverables, organizational process assets, project documents, and the project management plan.</b>	
	<b>What is the role of a Change Control Board (CCB)?</b>		<b>The CCB is a formally constituted group of stakeholders responsible for reviewing, evaluating, approving, delaying, or rejecting changes to the project, and recording and communicating such decisions.</b>	

**How is the Variance at Completion (VAC) calculated, and what does it signify?**

**VAC is calculated as BAC (Budget at Completion) minus EAC (Estimate at Completion). It signifies the expected budget surplus or deficit at the end of the project.**

**What is the significance of trend analysis in project management?**

**Trend analysis involves examining project performance over time to determine if performance improvements or deteriorations are trending in a certain direction, aiding in predictive actions.**

**Define 'Scope Creep' and its impact on a project.**

**Scope creep refers to the uncontrolled expansion to project scope without adjustments to time, cost, and resources, potentially leading to project delays and budget overruns.**

**What is a Risk Audit in the context of project management?**

**A Risk Audit is a review of the effectiveness of the risk management process, assessing how well risks are identified, analyzed, and responded to within the project.**

**Explain the concept of 'Reserve Analysis.'**

**Reserve Analysis involves determining the remaining contingency and management reserves needed to address identified risks and uncertainties for the remainder of the project.**

**What is the purpose of the Quality Control process?**

**The purpose of Quality Control is to monitor and record the results of quality activities to assess performance and recommend necessary changes.**

**Describe the process and importance of Stakeholder Analysis during the Monitoring and Controlling phase.**

**Stakeholder Analysis in this phase involves continually monitoring stakeholder engagement and adjusting strategies and plans to ensure stakeholder needs are met, thereby maintaining or increasing their support for the project.**

**What is a Performance Report?**

**A Performance Report is a document that captures the project's performance data regarding scope, schedule, cost, quality, and risk, often used for stakeholder communication and decision-making.**

## Closing Process Group

**What is the primary goal of the Closing process group?**

The primary goal is to finalize all project activities, formally close the project or a project phase, and confirm that the project has met its objectives and the stakeholders are satisfied.

**What does creating a Project Closure Document entail?**

It involves compiling project performance data, confirming that all project work complies with the contract requirements, and documenting lessons learned, project successes, and unresolved issues for future reference.

**What are 'Lessons Learned', and why are they important?**

Lessons Learned are insights gained from the project that can be applied to future projects. They are important for continuous improvement, helping organizations avoid past mistakes and replicate successes.

	<b>Describe the process of 'Contract Closure.'</b>		<b>Contract Closure involves the completion and settlement of the contract, including the resolution of any open items and the formal closing of the contract.</b>	
	<b>What is the significance of a 'Final Project Report'?</b>		<b>The Final Project Report summarizes the project outcomes, including the extent to which the project objectives were achieved, the total cost, and the performance against the schedule, providing a record of the project for stakeholders and a reference for future projects.</b>	
	<b>How is 'Administrative Closure' conducted?</b>		<b>Administrative Closure involves completing and settling each contract associated with the project or project phase and formalizing acceptance of the project's product, service, or result by the sponsor or customer.</b>	
	<b>What role do stakeholders play in the Closing process group?</b>		<b>Stakeholders play a critical role in the Closing process by participating in the acceptance of the project deliverables and providing feedback on the project's success and areas for improvement.</b>	



**Why is it important to release project resources during closure?**

Releasing resources, including team members, equipment, and facilities, is important to reduce costs and allow resources to be utilized on other projects, marking the official end of their commitment to the project.

**What is included in the 'Project Archives'?**

Project Archives include all historical project documents, such as the project plan, project reports, project deliverables, correspondence, and closure documents, preserved for future reference and organizational learning.

**Explain the importance of obtaining formal acceptance of the project deliverables from the customer or sponsor during project closure.**

Obtaining formal acceptance is crucial to ensure that the deliverables meet the agreed-upon requirements and expectations, signaling the official completion of the project and releasing the organization from further obligation regarding project deliverables.

# Project Integration Management

**What is the primary purpose of Project Integration Management?**

The primary purpose is to ensure that project processes and activities are coordinated effectively across all aspects of the project, from initiation through planning, execution, monitoring and controlling, to closing.

**Define 'Develop Project Charter.'**

Develop Project Charter is the process of creating a document that formally authorizes a project or a phase and documents initial requirements that satisfy the stakeholder's needs and expectations.

**What is the significance of the 'Project Management Plan'?**

The Project Management Plan defines how the project is executed, monitored, controlled, and closed. It integrates and consolidates all subsidiary plans and baselines from the planning processes.

	<b>Describe 'Direct and Manage Project Work.'</b>		<b>This process involves leading and performing the work defined in the project management plan and implementing approved changes to achieve the project's objectives.</b>	
	<b>What is involved in the 'Monitor and Control Project Work' process?</b>		<b>It involves tracking, reviewing, and reporting the progress to meet the performance objectives defined in the project management plan.</b>	
	<b>Explain 'Perform Integrated Change Control.'</b>		<b>This process involves reviewing all change requests, approving changes, and managing changes to deliverables, organizational process assets, project documents, and the project management plan.</b>	
	<b>What does 'Close Project or Phase' entail?</b>		<b>It involves finalizing all activities across all the Project Management Process Groups to formally complete the project or phase.</b>	

	<b>How does the Project Charter support Project Integration Management?</b>			<b>The Project Charter provides a direct link between the project and the strategic objectives of the organization, including the business case that justifies the project.</b>	
	<b>What is the role of a Project Management Office (PMO) in Project Integration Management?</b>			<b>A PMO can provide guidelines, best practices, templates, and oversight functions to support integrated project execution and alignment with organizational strategy.</b>	
	<b>Describe the process of developing a Project Management Plan.</b>			<b>It involves defining, preparing, and coordinating all subsidiary plans and integrating them into a comprehensive project management plan.</b>	
	<b>What is a Change Management Plan, and why is it important?</b>			<b>A Change Management Plan defines how changes will be formally introduced and managed throughout the project lifecycle. It's important for maintaining project stability and managing stakeholder expectations.</b>	

	<b>Explain the concept of 'Configuration Management' within Project Integration Management.</b>			<b>Configuration Management involves the detailed process of identifying, documenting, and controlling changes to the project's deliverables and related information.</b>	
	<b>Define 'Organizational Process Assets' and their relevance to Project Integration Management.</b>			<b>Organizational Process Assets are plans, processes, policies, procedures, and knowledge bases specific to and used by the performing organization. They influence the management of the project and can include historical information and lessons learned.</b>	
	<b>How does 'Integrated Change Control' differ from 'Change Control'?</b>			<b>Integrated Change Control looks at the impacts of changes across the entire project, considering all aspects of the project plan, while Change Control may focus on specific aspects or documents.</b>	
	<b>What is the importance of 'Lessons Learned' in Project Integration Management?</b>			<b>Lessons learned involve documenting and reflecting on the successes and failures of a project to improve future project planning and execution.</b>	

**How are project baselines used in Project Integration Management?**

Project baselines (scope, schedule, cost) serve as reference points. Monitoring and controlling processes compare actual performance against these baselines to ensure alignment and to identify necessary adjustments.

**Describe the 'Project Selection Methods.'**

Project Selection Methods include benefit measurement methods (cost-benefit analysis, scoring models) and constrained optimization methods (linear programming, integer programming) used to choose which project to execute.

**What is 'Enterprise Environmental Factors' in the context of Project Integration Management?**

Enterprise Environmental Factors refer to conditions, not under the immediate control of the team, that influence, constrain, or direct the project. These can include organizational culture, existing systems, and market conditions.

# Project Scope Management

**What is Project Scope Management?**

Project Scope Management involves the processes required to ensure that the project includes all the work necessary, and only the work necessary, to complete the project successfully.

**Define 'Scope Creep.'**

Scope Creep refers to uncontrolled changes or continuous growth in a project's scope, often without adjustments to time, cost, and resources, leading to project overruns.

**What is a 'Scope Statement'?**

The Scope Statement is a part of the project management plan that documents the project's objectives, deliverables, boundaries, acceptance criteria, and constraints. It's a key tool for scope management.

**Explain 'Work Breakdown Structure (WBS).'**

The WBS is 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.

**What is the purpose of a WBS Dictionary?**

The WBS Dictionary supports the WBS by providing detailed deliverable, activity, and scheduling information about each component in the WBS, including work packages and control accounts.

**Describe the 'Collect Requirements' process.**

Collect Requirements is the process of determining, documenting, and managing stakeholder needs and requirements to meet project objectives.

**What are 'Product Scope' and 'Project Scope'?**

Product Scope is the features and functions that characterize a product, service, or result. Project Scope is the work performed to deliver a product, service, or result with the specified features and functions.



**Define 'Scope Verification.'**

**Scope Verification is the process of formalizing acceptance of the completed project deliverables, ensuring that deliverables meet the documented standards and requirements.**

**What is 'Scope Control'?**

**Scope Control involves monitoring the status of the project and product scope and managing changes to the scope baseline, ensuring the project remains aligned with its objectives.**

**Explain the difference between 'Validation' and 'Verification' in Scope Management.**

**Validation ensures the project deliverables meet the needs and requirements of the stakeholders.  
Verification ensures the deliverables are complete and comply with agreed-upon specifications.**

**What role does the 'Change Control Board (CCB)' play in Scope Management?**

**The CCB is responsible for reviewing, evaluating, approving, or rejecting changes to the project scope, ensuring any modifications align with project goals.**

	<b>Describe 'Progressive Elaboration.'</b>			<b>Progressive Elaboration involves continuously improving and detailing a plan as more specific project information and more accurate estimates become available.</b>	
	<b>How is 'Project Scope' documented?</b>			<b>Project Scope is documented in the Project Scope Statement, which outlines the project's deliverables, objectives, and requirements.</b>	
	<b>What is a 'Control Scope' process?</b>			<b>Control Scope is the process of monitoring the status of the project and product scope and managing changes to the scope baseline.</b>	
	<b>Define 'Requirements Traceability Matrix (RTM).'</b>			<b>The RTM is a document that links requirements from their origin through the life of the project, facilitating the tracking of each requirement.</b>	

**What are 'Project Exclusions'?**

**Project Exclusions specifically detail what is out of scope for the project, helping to manage stakeholder expectations and delineate boundaries.**

**How do 'Requirements' affect Project Scope Management?**

**Requirements define the project's and product's features, functions, and characteristics, forming the basis for project scope development and management.**

**Explain the term 'Gold Plating' in Project Management.**

**Gold Plating refers to adding extra features or functions to the products that were not included in the scope or requirements. It's generally considered a negative practice because it introduces changes without stakeholders' consent.**

# Project Schedule Management

**What is Project Schedule Management?**

**Project Schedule Management involves the processes required to manage the timely completion of the project, including planning, defining, sequencing, estimating, developing, and controlling the project schedule.**

**Define 'Activity Sequence.'**

**Activity Sequencing is the process of identifying and documenting relationships among project activities to understand the order in which they should be performed.**

**What is a 'Milestone'?**

**A milestone is a significant point or event in the project, usually indicating the completion of a major deliverable or a set of related activities.**

**Explain 'Critical Path Method (CPM).'**

CPM is a technique used to predict project duration by analyzing which sequence of activities (path) has the least amount of scheduling flexibility (float). The longest path through the network is the critical path.

**What is 'Float' or 'Slack' in schedule management?**

Float, or slack, is the amount of time that a task in a project network can be delayed without causing a delay to subsequent tasks or the project finish date.

**Describe 'Fast Tracking.'**

Fast Tracking is a schedule compression technique in which activities or phases normally done in sequence are performed in parallel for at least a portion of their duration.

**What does 'Crashing' involve in schedule management?**

Crashing is a technique used to shorten the schedule duration for the least incremental cost by adding resources to critical path tasks without changing the project scope.

	<b>Define 'Resource Leveling.'</b>			<p>Resource Leveling is a technique in schedule management used to address resource conflict or overallocation by adjusting the project schedule, often resulting in an increased project duration.</p>	
	<b>What is a 'Gantt Chart'?</b>			<p>A Gantt Chart is a graphical representation of the project schedule, showing the start and finish dates of elements and summarizing the tasks, milestones, and their scheduled dates in a calendar format.</p>	
	<b>Explain the purpose of the 'Schedule Network Analysis.'</b>			<p>Schedule Network Analysis is a technique that generates the project schedule. It involves techniques such as critical path method, resource leveling, and what-if scenario analysis.</p>	
	<b>What is 'Schedule Baseline'?</b>			<p>The Schedule Baseline is the approved version of a schedule model that can be changed only through formal change control procedures and is used as the basis for comparison to actual results.</p>	

**Describe 'Lead' in project scheduling.**

**A lead is the amount of time whereby a successor activity can be advanced with respect to a predecessor activity. It allows overlap and can accelerate the schedule.**

**What is 'Lag' in project scheduling?**

**Lag is the amount of time whereby a successor activity is delayed with respect to a predecessor activity. It indicates waiting time between tasks.**

**Define 'Precedence Diagramming Method (PDM).'**

**PDM is a method used to create a project schedule network diagram that uses boxes or rectangles, referred to as nodes, to represent activities and connects them with arrows that show the dependencies.**

**What is the significance of 'Project Schedule Updates'?**

**Project Schedule Updates involve changes to the schedule baseline based on progress and changes to the project scope, resources, or estimates. It's crucial for keeping the project on track.**

**Explain 'Work Package.'**

A work package is the lowest level in the work breakdown structure (WBS), and it represents the group of tasks that a team is responsible for completing as part of the project.

**What is 'Monte Carlo Simulation' in the context of project scheduling?**

Monte Carlo Simulation is a technique used to understand the impact of risk and uncertainty in project schedules. It simulates the project schedule many times to calculate a range of possible completion dates.

**Describe the 'Agile Release Planning' approach to scheduling.**

Agile Release Planning provides a high-level summary timeline of the release schedule, typically based on the delivery of features and capabilities of the product, allowing for adjustments based on feedback and changes.



# Project Cost Management

**What is Project Cost Management?**

**Project Cost Management includes the processes involved in planning, estimating, budgeting, financing, funding, managing, and controlling costs so that the project can be completed within the approved budget.**

**Define 'Life Cycle Costing.'**

**Life Cycle Costing involves considering total costs of ownership, or the total costs associated with the project from initial concept through disposal, to make informed financial decisions.**

**What is an 'Analogous Estimating' technique?**

**Analogous Estimating is a technique for estimating costs using the actual costs of previous, similar projects as the basis for estimating the cost of the current project, often used when limited information is available.**

	<b>Explain 'Parametric Estimating.'</b>		<b>Parametric Estimating involves using statistical relationships between historical data and other variables (e.g., square footage in construction) to estimate costs for activities.</b>	
	<b>Define 'Bottom-up Estimating.'</b>		<b>Bottom-up Estimating is a method of estimating project costs by estimating individual work items or activities and summing them to get a project total.</b>	
	<b>What is a 'Cost Baseline'?</b>		<b>The Cost Baseline is an approved version of the time-phased project budget, excluding any management reserves, which is used as a basis for comparison to actual results.</b>	
	<b>Describe 'Earned Value Management (EVM).'</b>		<b>EVM is a project management technique that integrates scope, schedule, and cost data to measure project performance and progress.</b>	

	<b>What does 'CV' stand for, and what does it indicate?</b>			<b>CV stands for Cost Variance, a measure used in EVM that represents the amount of budget deficit or surplus at a given point in time; <math>CV = EV - AC</math>.</b>	
	<b>Define 'Budget at Completion (BAC).'</b>			<b>BAC is the total budget allocated to the project, representing the forecasted cost for all planned work.</b>	
	<b>Explain 'Estimate to Complete (ETC).'</b>			<b>ETC is a forecast of how much more money will be required to complete remaining project work.</b>	
	<b>What is 'Estimate at Completion (EAC)?'</b>			<b>EAC is the forecasted cost of the project at completion, calculated based on project performance and risk quantification.</b>	

	<b>Describe 'To-Complete Performance Index (TCPI).'</b>			<p>TCPI is a measure used in EVM to calculate the cost performance that must be achieved with the remaining resources to meet a specific management goal, expressed as <math>TCPI = (BAC - EV) / (BAC - AC)</math>.</p>	
	<b>What is 'Variance at Completion (VAC)?'</b>			<p>VAC is a forecast of the difference between the Budget at Completion (BAC) and the Estimate at Completion (EAC) and indicates whether the project will finish over or under budget.</p>	
	<b>Define 'Reserve Analysis.'</b>			<p>Reserve Analysis involves determining the necessity and amount of contingency and management reserves needed for the project, based on risk analysis and project needs.</p>	
	<b>What is 'Cost Aggregation'?</b>			<p>Cost Aggregation is the summing of costs for individual work packages or activities to establish a cost baseline.</p>	

**Explain 'Funding Limit Reconciliation.'**

**Funding Limit Reconciliation involves adjusting the project's activities and/or resources to adhere to funding constraints imposed by the performing organization or project sponsor.**

**Describe the purpose of 'Historical Information' in cost estimating.**

**Historical Information from past projects is used as a basis for estimating costs for current projects, providing insights and data to improve accuracy.**

**What is 'Cost Management Plan'?**

**The Cost Management Plan outlines how project costs will be planned, structured, and controlled. It specifies how cost variances will be managed and includes policies for estimating, budgeting, and controlling costs.**

# Project Quality Management

**What is Project Quality Management?**

Project Quality Management includes the processes for incorporating the organization's quality policy regarding planning, managing, and controlling project and product quality requirements, to meet stakeholders' expectations.

**Define 'Quality.'**

Quality is the degree to which a set of inherent characteristics fulfills requirements. It is about meeting or exceeding stakeholder expectations and adhering to standards.

**What is a 'Quality Management Plan'?**

The Quality Management Plan is a component of the project management plan that describes how the organization's quality policies will be implemented and how the project will ensure that the deliverables meet the stakeholders' quality expectations.

	<b>Explain 'Cost of Quality (COQ).'</b>			COQ includes all costs incurred over the life of the product by investment in preventing non-conformance to requirements, appraising the product or service for conformance, and failing to meet requirements (rework).	
	<b>What are 'Quality Metrics'?</b>			Quality Metrics are specific measures that describe a project or product attribute and how the project team will validate the fulfillment of those attributes.	
	<b>Define 'Benchmarking' in quality management.</b>			Benchmarking involves comparing actual or planned project practices to those of comparable projects to identify best practices, generate ideas for improvement, and provide a basis for measuring performance.	
	<b>What is 'Quality Auditing'?</b>			Quality Auditing is the process of evaluating how well project activities comply with organizational and project policies, procedures, and processes.	

	<b>Explain 'Quality Improvement.'</b>		<b>Quality Improvement involves the activities undertaken throughout the project to increase the effectiveness and efficiency of the project to provide added benefits to the project stakeholders.</b>	
	<b>What does 'Six Sigma' stand for in quality management?</b>		<b>Six Sigma is a disciplined, data-driven approach and methodology for eliminating defects, driving toward six standard deviations between the mean and the nearest specification limit in any process.</b>	
	<b>Describe the 'Plan-Do-Check-Act' (PDCA) cycle.</b>		<b>PDCA is an iterative quality improvement process that emphasizes systematic problem-solving and continuous improvement. It involves planning the change (Plan), implementing the change (Do), observing the results (Check), and institutionalizing the change (Act).</b>	
	<b>What is 'Total Quality Management (TQM)'?</b>		<b>TQM is a management approach centered on quality, based on the participation of all members of an organization in improving processes, products, services, and the culture in which they work.</b>	



**Define 'Statistical Sampling' in quality management.**

**Statistical Sampling involves selecting a part of the population of interest for inspection. Sample size and frequency should be determined early in the planning process.**

**What is 'Control Quality'?**

**Control Quality is the process of monitoring and recording results of executing the quality activities to assess performance and recommend necessary changes.**

**Explain the concept of 'Quality Control Measurements.'**

**Quality Control Measurements are the operational techniques and activities used to fulfill requirements for quality. They involve collecting and analyzing data to evaluate quality.**

**What are 'Quality Tools'?**

**Quality Tools are techniques such as charts, diagrams, and histograms used to understand, analyze, and improve processes and products.**

**Describe 'Root Cause Analysis.'**

**Root Cause Analysis is a method of problem solving that tries to identify the primary cause of faults or problems. It aims at addressing the root of the issue rather than its symptoms.**

**What is the role of 'Inspection' in quality management?**

**Inspection involves examining a work product to determine if it conforms to documented standards. Although time-consuming, it is necessary to verify output quality.**

**Define 'Prevention over Inspection' principle in quality management.**

**This principle asserts that it is better to prevent defects from occurring in the first place than to discover them later and then have to inspect for and fix them. It emphasizes quality should be built into the product from the beginning.**

# Project Resource Management

## What is Project Resource Management?

Project Resource Management includes the processes to identify, acquire, and manage the resources needed for the successful completion of the project. This encompasses physical resources and team members.

## Define 'Resource Breakdown Structure (RBS).'

The RBS is a hierarchical representation of resources by category and type. It helps in planning, managing, and controlling project work by providing a structured view of the project's resources.

## What is 'Resource Leveling'?

Resource Leveling is a technique used to address resource over-allocation or conflicts by adjusting the project schedule. It often results in an increased project duration.

	<b>Explain 'Resource Smoothing.'</b>		<b>Resource Smoothing is a technique used to adjust the project schedule to smooth the demand for resources, under the condition that the project's critical path is not affected, and the completion date remains the same.</b>	
	<b>Define 'Team Charter.'</b>		<b>The Team Charter is a document that establishes the team values, agreements, and operating guidelines for the project team, including the team's objectives, roles, and responsibilities.</b>	
	<b>What is the significance of 'Acquire Resources' in project management?</b>		<b>Acquiring Resources involves obtaining the team members and physical resources necessary to complete project tasks. This process ensures that the project has the necessary human resources and materials to achieve its objectives.</b>	
	<b>Describe 'Develop Team' process.</b>		<b>Develop Team is the process of improving competencies, team member interaction, and overall team environment to enhance project performance. It includes training, team-building activities, and development of interpersonal skills.</b>	

	<b>What is 'Manage Team'?</b>		<b>Manage Team involves tracking team member performance, providing feedback, resolving issues, and managing team changes to optimize project performance.</b>	
	<b>Define 'Virtual Teams' and their challenges.</b>		<b>Virtual Teams are groups of individuals working together from different geographic locations, relying on communication technology. Challenges include time zone differences, cultural differences, and communication barriers.</b>	
	<b>Explain 'Conflict Resolution Techniques.'</b>		<b>Conflict Resolution Techniques include problem-solving, compromising, forcing, smoothing, and withdrawing. These are strategies used to address and resolve disputes among project team members.</b>	
	<b>What are 'Motivation Theories' relevant to project management?</b>		<b>Motivation Theories such as Maslow's Hierarchy of Needs, Herzberg's Two-Factor Theory, and McGregor's Theory X and Theory Y provide insights into what motivates individuals and how to enhance team productivity.</b>	

	<b>Describe the 'Tuckman Ladder' model.</b>			<b>The Tuckman Ladder model describes the stages of team development: Forming, Storming, Norming, Performing, and Adjourning. It highlights how teams evolve over time.</b>	
	<b>What is 'Emotional Intelligence' in project management?</b>			<b>Emotional Intelligence is the ability to recognize, understand, and manage our own emotions and the emotions of others. It's crucial for effective team leadership and conflict resolution.</b>	
	<b>Define 'Power and Influence' in the context of project management.</b>			<b>Power and Influence refer to the ability of the project manager or a team member to affect the behavior of others, the course of events, or decision-making processes in a desired way.</b>	
	<b>What is the importance of 'Leadership Styles' in project management?</b>			<b>Leadership Styles, such as autocratic, democratic, and laissez-faire, significantly impact team motivation, engagement, and project success. The choice of style may depend on the team, the individual, and the situation.</b>	

	<p><b>Explain 'Multicultural Teams' in project management.</b></p>		<p><b>Multicultural Teams consist of members from different cultures and backgrounds. Managing such teams involves understanding cultural differences, respecting diversity, and leveraging the strengths of varied perspectives.</b></p>	
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	<p><b>What is 'Resource Optimization'?</b></p>		<p><b>Resource Optimization involves using techniques like resource leveling and smoothing to make the best use of limited resources without extending the project schedule unnecessarily.</b></p>	
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	<p><b>Describe 'Recognition and Rewards' in project management.</b></p>		<p><b>Recognition and Rewards are techniques used to motivate project team members. They can be financial or non-financial and are aimed at acknowledging and appreciating individuals' contributions to the project.</b></p>	
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# Project Communication Management

**What is Project Communication Management?**

Project Communication Management includes the processes necessary to ensure timely and appropriate planning, collection, creation, distribution, storage, retrieval, management, control, monitoring, and the ultimate disposition of project information.

**Define 'Communication Plan.'**

The Communication Plan is a document that outlines the project's communication requirements and strategies, including stakeholders' information needs, the information to be communicated, the methods used, and frequency.

**What is the importance of 'Stakeholder Engagement' in communication?**

Stakeholder Engagement is crucial in communication as it ensures that all parties involved in the project are appropriately informed, consulted, and involved in decisions affecting them, leading to better project outcomes.



**Explain 'Active Listening' in project management.**

Active Listening involves fully concentrating, understanding, responding, and then remembering what is being said. It's a key communication skill that helps project managers to better understand stakeholders' needs and concerns.

**What are 'Communication Methods'?**

Communication Methods include interactive, push, and pull communication. Interactive communication involves two-way exchanges, push communication involves sending information to recipients, and pull communication involves recipients accessing information at their own discretion.

**Define 'Communication Channels.'**

Communication Channels refer to the paths or routes through which information is transmitted from one location to another. The number of channels increases exponentially with the number of project stakeholders.

**What is 'Noise' in communication?**

Noise in communication refers to any factor that distorts or interrupts the message flow between sender and receiver, making it difficult for the message to be accurately received and understood.

	<b>Explain the concept of 'Feedback Loops' in communication.</b>		<b>Feedback Loops involve the receiver providing a response to the sender's message, confirming that the message has been received and understood correctly, thus completing the communication cycle.</b>	
	<b>Describe 'Non-verbal Communication' in project management.</b>		<b>Non-verbal Communication includes body language, gestures, facial expressions, tone of voice, and other cues that provide additional information or context to the message being communicated.</b>	
	<b>What is 'Cultural Sensitivity' in communication?</b>		<b>Cultural Sensitivity involves being aware of and respecting cultural differences and adapting communication styles accordingly to ensure messages are understood and respected across diverse groups.</b>	
	<b>Define 'Information Management Systems.'</b>		<b>Information Management Systems are tools and processes used to collect, store, and disseminate project information. They are crucial for ensuring that the right information reaches the right stakeholders at the right time.</b>	

	<b>What role does 'Reporting' play in Project Communication Management?</b>			Reporting involves preparing and distributing information to stakeholders in a format and frequency that meets their needs and requirements, ensuring transparency and keeping stakeholders informed about project progress and performance.	
	<b>Explain the importance of 'Project Status Meetings.'</b>			Project Status Meetings are regular sessions held with project stakeholders to review progress, address issues, and make decisions. They are a critical tool for ensuring alignment and addressing stakeholder concerns.	
	<b>What is 'Conflict Resolution' in project communication?</b>			Conflict Resolution involves identifying, addressing, and managing conflicts in a constructive manner. Effective communication is key to understanding the root cause of conflicts and finding mutually acceptable solutions.	
	<b>Describe 'Virtual Communication' in project management.</b>			Virtual Communication refers to the use of digital technologies (email, video conferencing, social media) to exchange information and collaborate with team members and stakeholders who are not physically co-located.	

**What is the '5 C's' model in communication?**

The 5 C's model includes clear, concise, coherent, complete, and courteous. It's a guideline for ensuring that communication is effective and understood by the receiver.

**Define 'Escalation Processes' in communication.**

Escalation Processes involve procedures for increasing the visibility of issues within the organization, ensuring that high-priority problems are addressed promptly and by the appropriate level of management.

**What is 'Persuasive Communication'?**

Persuasive Communication involves shaping, reinforcing, or changing the response of others, using verbal and non-verbal methods to convey a message convincingly and compellingly.

# Project Risk Management

**What is Project Risk Management?**

Project Risk Management includes the processes of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring risk on a project.

**Define 'Risk.'**

Risk is an uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives such as scope, schedule, cost, and quality.

**What is a 'Risk Management Plan'?**

The Risk Management Plan is a component of the project management plan that describes how risk management activities will be structured and performed.

**Explain 'Qualitative Risk Analysis.'**

**Qualitative Risk Analysis is the process of prioritizing risks for further analysis or action by assessing their impact and likelihood of occurrence.**

**Describe 'Quantitative Risk Analysis.'**

**Quantitative Risk Analysis is the process of numerically analyzing the effect of identified risks on overall project objectives.**

**What is a 'Risk Register'?**

**The Risk Register is a document that contains the results of the risk identification process, risk analysis, and risk response planning, including a list of identified risks and potential responses.**

**Define 'Risk Categories.'**

**Risk Categories provide a means for grouping potential causes of risk. Commonly used categories include technical, external, organizational, and project management.**

	<b>Explain 'Risk Response Strategies' for negative risks or threats.</b>			Strategies for negative risks include Avoid, Transfer, Mitigate, and Accept. Each strategy offers a different approach to dealing with potential negative impacts on the project.	
	<b>Describe 'Risk Response Strategies' for positive risks or opportunities.</b>			Strategies for positive risks include Exploit, Share, Enhance, and Accept. These strategies aim to ensure that opportunities are captured and maximized for the benefit of the project.	
	<b>What is 'Risk Monitoring and Control'?</b>			Risk Monitoring and Control is the process of implementing risk response plans, tracking identified risks, monitoring residual risks, identifying new risks, and evaluating risk process effectiveness throughout the project.	
	<b>Define 'Secondary Risks.'</b>			Secondary Risks are those that arise as a direct result of implementing a risk response. These risks must also be identified, analyzed, and managed.	

**Explain 'Risk Appetite.'**

**Risk Appetite is the degree of uncertainty an organization or individual is willing to accept in anticipation of a reward. It varies greatly among stakeholders and influences risk management approaches.**

**What are 'Risk Triggers'?**

**Risk Triggers are events or conditions that indicate the onset of a risk. Identifying triggers helps in the early detection and management of risks before they impact the project.**

**Describe 'Residual Risks.'**

**Residual Risks are the risks that remain after risk responses have been implemented. They represent the exposure that still exists and must be accepted or further managed.**

**What is 'Risk Tolerance'?**

**Risk Tolerance is the threshold levels of risk that an organization or individual can withstand. Understanding risk tolerance is crucial for developing appropriate risk responses.**



**Define 'Monte Carlo Simulation' in risk management.**

**Monte Carlo Simulation is a quantitative risk analysis technique that uses a computer to simulate the outcomes of a project thousands of times to assess the impact of risk on project objectives.**

**Explain the concept of 'Risk Urgency Assessment.'**

**Risk Urgency Assessment is part of qualitative risk analysis, assessing and prioritizing risks based on their urgency or the need for immediate action or monitoring.**

**What is 'Risk Ownership'?**

**Risk Ownership involves assigning an individual or party the responsibility for managing a specific risk, including planning and implementing appropriate risk responses.**

# Project Procurement Management

**What is Project Procurement Management?**

**Project Procurement Management includes the processes necessary to purchase or acquire products, services, or results needed from outside the project team to complete a project.**

**Define 'Procurement Strategy.'**

**A Procurement Strategy outlines the approach a project will take to obtain goods and services from external suppliers, including the timing, types of contracts, and how supplier relationships will be managed.**

**What is a 'Request for Proposal (RFP)'?**

**An RFP is a document issued by a buyer to solicit proposals from potential suppliers. It typically includes a detailed description of the project and its requirements, allowing suppliers to propose solutions and bids.**

	<b>Explain 'Supplier Selection Criteria.'</b>		<b>Supplier Selection Criteria</b> are the standards and requirements used to evaluate and choose the best supplier from a group of bidders. Criteria may include price, quality, reputation, service, and delivery time.	
	<b>What is a 'Contract'?</b>		A contract is a legally binding agreement between two or more parties that outlines the products or services to be provided, terms, conditions, and payment terms.	
	<b>Define 'Fixed Price Contract.'</b>		A Fixed Price Contract is a type of contract where the price is set and not subject to change based on the actual costs of performing the work, providing cost certainty to the buyer.	
	<b>Explain 'Cost-Reimbursable Contract.'</b>		A Cost-Reimbursable Contract, also known as cost-plus contract, is one where the buyer reimburses the seller for the seller's allowable costs, plus a fee representing the seller's profit.	

**What is a 'Time and Materials (T&M) Contract'?**

A T&M Contract is a hybrid type of contractual arrangement that includes aspects of both fixed-price and cost-reimbursable contracts. Payment is based on the actual cost of direct labor, at specified fixed hourly rates, and materials used.

**Describe 'Procurement Documents.'**

Procurement Documents are used to solicit bids and proposals from potential suppliers. Types include Request for Information (RFI), Request for Quotation (RFQ), and Request for Proposal (RFP).

**What is 'Make or Buy Analysis'?**

Make or Buy Analysis is the process of determining whether it is more cost-effective to produce goods or services in-house or to purchase them from an external supplier.

**Explain 'Source Selection Criteria.'**

Source Selection Criteria are the standards and benchmarks used to evaluate supplier proposals or bids, helping to identify the supplier who offers the best value for money.

	<b>What role does 'Contract Management' play in project management?</b>			<b>Contract Management</b> involves ensuring that both parties to the contract fulfill their contractual obligations and resolving any conflicts that arise, to achieve the project's objectives.	
	<b>Describe 'Change Control in Procurement.'</b>			<b>Change Control in Procurement</b> is the process of managing how changes to the contract are identified, evaluated, approved, and implemented, ensuring all parties agree on and document contract modifications.	
	<b>What is 'Procurement Audits'?</b>			<b>Procurement Audits</b> are a structured review of the procurement process from planning through contract administration. The goal is to identify successes, failures, and areas for improvement in procurement activities.	
	<b>Define 'Claims Administration.'</b>			<b>Claims Administration</b> involves managing claims by or against the project, usually related to changes in the project scope or contract terms, and resolving disputes as they arise.	

	<p><b>What is 'Procurement Negotiations'?</b></p>		<p><b>Procurement Negotiations</b> involve discussions between the buyer and seller aimed at reaching an agreement on contract terms, prices, and other important aspects of the procurement.</p>	
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	<p><b>Explain the importance of 'Supplier Relationship Management.'</b></p>		<p><b>Supplier Relationship Management</b> is the discipline of strategically planning for, and managing, all interactions with third party organizations that supply goods and/or services to an organization in order to maximize the value of those interactions.</p>	
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	<p><b>What are 'Statements of Work (SOW)'?</b></p>		<p><b>Statements of Work (SOW)</b> are documents that detail the work requirements for a specific project or contract, including tasks, deliverables, timelines, and performance criteria.</p>	
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# Project Stakeholder Management

## What is Project Stakeholder Engagement?

Project Stakeholder Engagement involves the processes required to identify the people, groups, or organizations that could impact or be impacted by the project, to analyze stakeholder expectations and their impact on the project, and to develop appropriate management strategies for effectively engaging stakeholders in project decisions and execution.

## Define 'Stakeholder.'

A stakeholder is any individual, group, or organization that can affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project.

## What is a 'Stakeholder Engagement Plan'?

The Stakeholder Engagement Plan is a component of the project management plan that identifies the strategies and actions required to promote productive involvement of stakeholders in project decision making and execution.

	<b>Explain 'Stakeholder Analysis.'</b>			<p>Stakeholder Analysis is the technique of identifying the project stakeholders, assessing their interests, potential impacts on project success, and classifying them according to their interest, influence, and involvement in the project.</p>	
	<b>What are the 'Stakeholder Engagement Levels'?</b>			<p>The stakeholder engagement levels include Unaware, Resistant, Neutral, Supportive, and Leading, which describe the current level of support and involvement of stakeholders in the project.</p>	
	<b>Define 'Power/Interest Grid.'</b>			<p>The Power/Interest Grid is a tool used in stakeholder analysis to categorize stakeholders based on their level of authority (power) and their level or concern (interest) regarding project outcomes.</p>	
	<b>What is 'Stakeholder Engagement Assessment Matrix'?</b>			<p>The Stakeholder Engagement Assessment Matrix is a tool used to assess the current level of stakeholder engagement against the desired level of engagement to identify gaps and develop strategies for enhancing stakeholder support and minimizing resistance.</p>	



	<b>Describe 'Communication Methods' for stakeholder engagement.</b>		<b>Communication Methods for stakeholder engagement can vary from interactive (face-to-face meetings, phone calls), to push (emails, newsletters), to pull methods (intranet, knowledge repositories), depending on the information needs of the stakeholders.</b>	
	<b>What is 'Change Management' in the context of stakeholder engagement?</b>		<b>Change Management involves identifying, implementing, and managing changes in stakeholder engagement strategies and plans as the project evolves and new stakeholder information or insights are discovered.</b>	
	<b>Explain the importance of 'Managing Stakeholder Expectations.'</b>		<b>Managing Stakeholder Expectations is crucial for maintaining project support and alignment, minimizing resistance, and ensuring that the project delivers value that meets or exceeds stakeholder needs and desires.</b>	
	<b>What role does 'Feedback Loops' play in stakeholder engagement?</b>		<b>Feedback Loops are essential for stakeholder engagement as they allow for continuous communication between the project team and stakeholders, enabling adjustments to be made based on stakeholder input and concerns.</b>	

	<b>Define 'Conflict Resolution Techniques' in stakeholder engagement.</b>		<b>Conflict Resolution Techniques include negotiation, mediation, arbitration, and conciliation, which are used to address and resolve disputes between stakeholders and the project team in a constructive manner.</b>	
	<b>What is 'Cultural Sensitivity' in stakeholder engagement?</b>		<b>Cultural Sensitivity involves being aware of and respectful towards the cultural differences and values of stakeholders, which is essential for effective communication and relationship building.</b>	
	<b>Describe the 'Stakeholder Communication Plan.'</b>		<b>The Stakeholder Communication Plan outlines the approach for disseminating project information to stakeholders. It includes details on the communication frequency, methods, formats, content, and responsible parties.</b>	
	<b>What is 'Engagement Level Monitoring'?</b>		<b>Engagement Level Monitoring involves regularly assessing stakeholder engagement levels and the effectiveness of engagement strategies, making adjustments as necessary to ensure stakeholder needs are met.</b>	

**Explain 'Public Relations' in the context of stakeholder engagement.**

**Public Relations involves managing the project's image and reputation among stakeholders and the public. It includes strategies to enhance positive perceptions and mitigate negative impacts.**

**What are 'Social Media Tools' in stakeholder engagement?**

**Social Media Tools are platforms like LinkedIn, Twitter, and Facebook used for engaging stakeholders by providing project updates, gathering feedback, and fostering a sense of community and involvement.**

**Define 'Stakeholder Satisfaction.'**

**Stakeholder Satisfaction refers to the measure of how well the project meets or exceeds the expectations and needs of its stakeholders, which is critical for project success and acceptance.**

# Agile Fundamentals

**What is Agile?**

**Agile is a project management and software development approach that focuses on delivering value to the customer through iterative development, collaboration, customer feedback, and adapting to change.**

**What are the 4 core values of the Agile Manifesto?**

**The Agile Manifesto values: 1) Individuals and interactions over processes and tools, 2) Working software over comprehensive documentation, 3) Customer collaboration over contract negotiation, 4) Responding to change over following a plan.**

**What are 'User Stories' in Agile?**

**User Stories are short, simple descriptions of a feature told from the perspective of the user or customer who desires the new capability. They typically follow the format: As a [type of user], I want [some goal] so that [some reason].**

	<b>Explain 'Sprints' in Agile methodology.</b>		<b>Sprints are fixed-length iterations, usually 2-4 weeks long, during which a cross-functional team works to complete a set amount of work from the backlog, resulting in a potentially shippable product increment.</b>	
	<b>What is the role of a 'Scrum Master'?</b>		<b>The Scrum Master is responsible for promoting and supporting Scrum as defined in the Scrum Guide, helping everyone understand Scrum theory, practices, rules, and values. They act as a facilitator and coach for the Scrum Team.</b>	
	<b>Define 'Product Backlog' in Agile.</b>		<b>The Product Backlog is a prioritized list of everything that might be needed in the product and is the single source of requirements for any changes to be made to the product.</b>	
	<b>What is 'Continuous Integration'?</b>		<b>Continuous Integration is a software development practice where members of a team integrate their work frequently, usually each person integrates at least daily, leading to multiple integrations per day. Automated builds and tests verify each integration.</b>	

**Describe the 'Agile Retrospective' meeting.**

The Agile Retrospective is a meeting held at the end of each sprint where the team reflects on the past sprint. They discuss what went well, what didn't, and identify actions for improvement in the next sprint.

**What is 'Test-Driven Development (TDD)'?**

TDD is a software development approach in which tests are written before writing the new function or feature. The development cycle is primarily driven by tests, ensuring that code meets specified behavior before implementation.

**Explain 'Pair Programming.'**

Pair Programming is an Agile software development technique where two programmers work together at one workstation. One writes code (the driver) while the other reviews each line of code as it is typed in (the observer or navigator). The two programmers switch roles frequently.

# Agile Frameworks and Practices

## What is Scrum?

Scrum is an Agile framework for developing, delivering, and sustaining complex products through collaborative effort. It is designed around sprints, or short, consistent development cycles, with a focus on continuous improvement and adapting to change.

## Describe the Scrum Roles.

In Scrum, there are three roles:  
The Product Owner, who represents the stakeholders and the voice of the customer; The Scrum Master, who ensures the process runs smoothly and obstacles are removed; and The Development Team, a cross-functional group responsible for delivering the product.

## What is Kanban?

Kanban is an Agile framework focusing on visual management and continuous delivery while not overburdening the team members. It uses a Kanban board to visualize work flow and work in progress (WIP) limits to optimize the flow of work.

**Explain the concept of 'WIP Limits' in Kanban.**

Work In Progress (WIP) Limits restrict the number of tasks in the different stages of the workflow process. Limiting WIP helps teams focus on finishing work before starting new tasks, thereby improving flow, efficiency, and throughput.

**What is Lean Software Development?**

Lean Software Development is an Agile methodology based on the principles of Lean Manufacturing. It emphasizes optimizing efficiency and minimizing waste in the development process, focusing on delivering value to the customer.

**Define 'XP (Extreme Programming).'**

XP, or Extreme Programming, is an Agile software development framework aimed at producing higher quality software and higher quality of life for the development team. It emphasizes customer satisfaction, continuous feedback, and the ability to adapt to changing requirements.?

**What is the Agile Manifesto?**

The Agile Manifesto is a declaration of four foundational values and twelve supporting principles that guide Agile software development. It emphasizes individuals and interactions, working software, customer collaboration, and responding to change.



**Describe the 'Daily Stand-up' meeting.**

The Daily Stand-up, or Daily Scrum, is a short (15-minute) meeting for the development team to synchronize activities and create a plan for the next 24 hours, discussing what was done the previous day, what will be done today, and any obstacles in the way.

**What is 'User Story Mapping'?**

User Story Mapping is an Agile practice that helps teams understand the user's journey with the product, prioritize work, and plan releases based on delivering value to users throughout their experience.

**Explain 'Feature-Driven Development (FDD).'**

Feature-Driven Development (FDD) is an iterative and incremental Agile software development framework focused on building and delivering client-valued features. It involves developing a model, building a feature list, and then planning, designing, and building by feature.

# Agile Principles in Project Contexts

**How do Agile principles support customer satisfaction?**

Agile principles prioritize customer satisfaction through early and continuous delivery of valuable software or product features. Regular feedback and iterative development ensure that the end product meets customer needs and expectations.

**What role does adaptability play in Agile project management?**

Adaptability is crucial in Agile project management, allowing teams to respond to changes in customer requirements, project scope, and market conditions quickly and effectively, thereby ensuring the project remains relevant and valuable.

**How do Agile methodologies enhance team collaboration?**

Agile methodologies enhance team collaboration by promoting co-located cross-functional teams, regular communication, and daily stand-ups, fostering a culture of openness, mutual respect, and shared responsibility for the project's success.

	<b>Why is iterative development important in Agile?</b>		<b>Iterative development allows for incremental progress through repeated cycles, enabling teams to refine and adjust their work based on feedback and testing, which leads to a higher quality product and better alignment with user needs.</b>	
	<b>How does Agile address risk management?</b>		<b>Agile addresses risk management by breaking projects into smaller, manageable units, allowing teams to identify and respond to risks early and continuously throughout the project lifecycle, thereby reducing the impact of risks.</b>	
	<b>Describe the importance of maintaining a sustainable working pace in Agile projects.</b>		<b>Maintaining a sustainable working pace in Agile projects ensures that team members remain productive and motivated over the long term, reducing burnout and promoting high-quality work.</b>	
	<b>What is the significance of simplicity in Agile projects?</b>		<b>In Agile projects, simplicity—the art of maximizing the amount of work not done—is essential for focusing efforts on high-value activities, reducing waste, and delivering value more quickly and efficiently.</b>	

	<b>How do Agile practices encourage innovation?</b>		<b>Agile practices encourage innovation by allowing teams the flexibility to experiment, learn from failures, and adapt their approach based on what works best, fostering a creative and exploratory work environment.</b>	
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	<b>Why is continuous feedback important in Agile?</b>		<b>Continuous feedback from stakeholders and users is important in Agile as it helps ensure that the project stays aligned with customer needs and expectations, allowing for adjustments to be made in a timely manner.</b>	
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	<b>How does Agile facilitate project transparency and accountability?</b>		<b>Agile facilitates project transparency and accountability by making work and progress visible to all team members and stakeholders through practices like daily stand-ups, sprint reviews, and visible work boards, ensuring everyone is aware of the project status and challenges.</b>	
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## Scenario-Based Questions

**A project is running behind schedule. What Agile technique could help the team catch up without compromising quality?**

**The team could use the "Crashing" technique by adding more resources to critical tasks, or adopt "Fast Tracking" by overlapping tasks that were originally planned to be done in sequence, ensuring they focus on high-priority features to deliver value quickly without compromising quality.**

**Your project stakeholder has requested a significant change that could affect the project scope. What is your first step?**

**The first step is to evaluate the change request's impact on the project scope, schedule, cost, and quality. Then, discuss the change with the stakeholder to understand their needs fully before seeking approval through the project's change control process.**

**During a project, you discover that the initial cost estimates are significantly lower than the actual costs. What should you do next?**

**Revisit the cost estimation process to identify any inaccuracies or missed costs, adjust the estimates based on current information, and communicate the changes to stakeholders. Update the cost baseline and consider identifying cost-saving measures to mitigate the impact.**

	<b>A team member is consistently missing deadlines, impacting project progress. How do you address this issue?</b>		<b>Schedule a one-on-one meeting with the team member to understand the root cause of the missed deadlines. Offer support or resources they might need, set clear expectations for future deliverables, and consider adjustments to workload or deadlines if necessary.</b>	
	<b>How would you handle a situation where two stakeholders have conflicting requirements?</b>		<b>Facilitate a meeting with the stakeholders to understand their requirements and the reasons behind the conflict. Explore alternative solutions or compromises that could satisfy both parties, focusing on the project's objectives and prioritizing requirements that align with those goals.</b>	
	<b>Your project is at risk of exceeding the budget. What strategies can you employ to control costs?</b>		<b>Review and prioritize project activities, focusing on those that add the most value. Consider cost-reduction techniques such as re-estimating, scope reduction, or renegotiating contracts. Continuously monitor costs and implement cost control measures.</b>	
	<b>You receive feedback that a delivered product does not meet the customer's quality expectations. What steps should you take?</b>		<b>Review the quality requirements and specifications for the product. Identify where the product deviates from these standards and determine the cause of the quality issue. Implement corrective actions to align the product with customer expectations and review quality control processes to prevent future issues.</b>	

	<b>A critical project resource is unexpectedly unavailable. How do you proceed to ensure the project remains on track?</b>		<p>Assess the impact of the resource's unavailability on the project schedule and deliverables. Explore alternatives such as reallocating tasks among existing team members, hiring a temporary replacement, or adjusting the project timeline if necessary.</p>	
	<b>How do you maintain team motivation during a particularly challenging phase of the project?</b>		<p>Acknowledge the challenges and express appreciation for the team's efforts. Provide support and resources to address the challenges, encourage open communication, and celebrate small victories to keep morale high.</p>	
	<b>A stakeholder continuously requests changes that affect the project scope. How do you manage this situation?</b>		<p>Clearly communicate the impact of scope changes on the project's cost, schedule, and quality. Work with the stakeholder to prioritize changes that align with project goals and manage expectations through the change control process.</p>	
	<b>What approach would you take if you identified a potential risk that could jeopardize the project's success?</b>		<p>Document the risk and assess its impact and likelihood. Develop a risk response plan detailing mitigation or contingency strategies. Communicate the risk and response plan to relevant stakeholders for awareness and decision-making.</p>	

	<p><b>Your project is ahead of schedule but exceeding the budget. What factors might you consider to address this imbalance?</b></p>		<p><b>Analyze the reasons for the budget overrun, such as inaccurate estimates, scope creep, or unexpected costs. Adjust project plans and activities to realign with the budget, potentially reducing scope or identifying cost-saving opportunities.</b></p>	
	<p><b>How do you ensure effective communication within a distributed project team?</b></p>		<p><b>Implement regular video calls and virtual meetings to foster team collaboration. Use project management and communication tools to share information transparently. Establish clear communication protocols and ensure all team members are aware of project updates and changes.</b></p>	
	<p><b>You are managing a project with a high degree of uncertainty. What project management approach would you adopt?</b></p>		<p><b>An Agile or adaptive project management approach would be suitable for handling high uncertainty, as it emphasizes flexibility, customer collaboration, and the ability to respond to changes rapidly through iterative work cycles.</b></p>	
	<p><b>How would you handle receiving feedback from a client that a project deliverable does not meet their expectations?</b></p>		<p><b>Promptly review the feedback with the project team and compare the deliverable against the agreed-upon specifications or requirements. Identify any discrepancies and work with the team to make necessary adjustments. Communicate the action plan to the client and ensure the revised deliverable meets their expectations before resubmission.</b></p>	



## Multiple-Choice Questions

	<p>Which document describes how project requirements will be analyzed, documented, and managed?</p> <p>A) Project Charter</p> <p>B) Project Management Plan</p> <p>C) Requirements Management Plan</p> <p>D) Stakeholder Engagement Plan</p>			<p><b>C) Requirements Management Plan</b></p>	
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	<p>In which process group is the project charter developed?</p> <p>A) Initiating</p> <p>B) Planning</p> <p>C) Executing</p> <p>D) Closing</p>			<p><b>A) Initiating</b></p>	
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	<p>What is the primary purpose of a kick-off meeting?</p> <p>A) Inform stakeholders of project completion</p> <p>B) Develop the project team</p> <p>C) Officially start the project</p> <p>D) Perform a project closure</p>			<p><b>C) Officially start the project</b></p>	
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	<p>Which of the following is a tool used in the Collect Requirements Process?</p> <p>A) Pareto Chart</p> <p>B) Prototypes</p> <p>C) Ishikawa Diagram</p> <p>D) Histogram</p>			<p><b>B) Prototypes</b></p>	
	<p>Which type of dependency is used in the sequence activities process as a form of best practice?</p> <p>A) External</p> <p>B) Mandatory</p> <p>C) Discretionary</p> <p>D) Internal</p>			<p><b>C) Discretionary</b></p>	
	<p>What does the Cost Performance Index (CPI) measure?</p> <p>A) The value of work completed compared to the actual cost or progress made.</p> <p>B) The estimated cost compared to the actual cost.</p> <p>C) The cost efficiency of budgeted resources.</p> <p>D) The rate at which a project is being</p>			<p><b>C) The cost efficiency of budgeted resources.</b></p>	
	<p>What is the main output of the Develop Project Charter process?</p> <p>A) Project Management Plan</p> <p>B) Project Charter</p> <p>C) Project Schedule</p> <p>D) Stakeholder Register</p>			<p><b>B) Project Charter</b></p>	

Which Agile ceremony focuses on the team discussing what went well and what could be improved?				<b>C) Sprint Retrospective</b>	
A) Sprint Planning B) Daily Stand-up C) Sprint Retrospective D) Sprint Review					
A risk with a high impact and low probability would be placed where on a Probability and Impact Matrix?				<b>B) In the top left corner</b>	
A) In the top right corner B) In the top left corner C) In the bottom right corner D) In the bottom left corner					
Which conflict resolution technique involves finding a temporary solution until a permanent solution is found?				<b>B) Smoothing</b>	
A) Forcing B) Smoothing C) Compromising D) Problem Solving					
In which type of contract is the seller reimbursed for all allowable costs for performing the contract work and receives a fixed fee payment calculated as a percentage of the initial estimated project costs?				<b>B) Cost-plus-fixed-fee contract (CPFF)</b>	
A) Fixed-price contract B) Cost-plus-fixed-fee contract (CPFF) C) Cost-plus-incentive-fee contract (CPIF) D) Time and Materials contract (T&M)					

	<p>Which quality management tool is used to identify the causes of defects, sort ideas into useful categories, and identify root causes of defects?</p> <p>A) Control Charts</p> <p>B) Flowcharts</p> <p>C) Ishikawa (Fishbone) Diagram</p> <p>D) Histogram</p>		<p><b>C) Ishikawa (Fishbone) Diagram</b></p>	
	<p>What is the term for the amount of time that a schedule activity can be delayed without delaying the project finish date?</p> <p>A) Lead time</p> <p>B) Lag time</p> <p>C) Total float</p> <p>D) Critical path</p>		<p><b>C) Total float</b></p>	
	<p>Which document contains detailed descriptions of work packages?</p> <p>A) Project Charter</p> <p>B) Work Breakdown Structure (WBS)</p> <p>C) WBS Dictionary</p> <p>D) Project Scope Statement</p>		<p><b>C) WBS Dictionary</b></p>	
	<p>What is the primary goal of stakeholder engagement?</p> <p>A) To ensure that stakeholders are aware of project progress.</p> <p>B) To satisfy the stakeholders' needs and resolve issues.</p> <p>C) To involve stakeholders in the decision-making process.</p> <p>D) To ensure that the project will meet or exceed the stakeholders'</p>		<p><b>D) To ensure that the project will meet or exceed the stakeholders' expectations.</b></p>	