
Q1. Define Develop Schedule and Control Schedule?

Develop Schedule:

Develop Schedule is the process of analyzing activity sequences, durations, resource requirements, and schedule constraints to create the project schedule model. This process produces the **Project Schedule** — the primary output — along with schedule baselines and project calendar.

Key Techniques used in Develop Schedule:

- **Critical Path Method (CPM):** Identifies the longest path through the network diagram. Activities on this path have zero float — any delay here delays the project.
- **Critical Chain Method:** Focuses on resource constraints and uses buffers (project and feeding buffers) instead of float.
- **Resource Optimization:** Resource leveling (adjusts dates to balance resource demand) and resource smoothing (adjusts within float limits).
- **Schedule Compression:** Crashing (adding resources) and Fast Tracking (overlapping activities).

Control Schedule:

Control Schedule is the process of monitoring the status of the project to update the schedule and manage changes to the schedule baseline. It is performed throughout the project as part of the Monitor & Control process group.

Key Activities in Control Schedule:

- Measuring current schedule performance against the baseline using Earned Value Management (SV, SPI).
 - Identifying variances and their root causes.
 - Assessing the need for schedule changes and implementing corrective or preventive actions.
 - Updating the schedule forecast and communicating status to stakeholders.
 - Updating the project management plan and schedule baseline when approved changes are made.
-

Q2. What are the steps of Project Execution or Development phase?

The **Project Execution / Development Phase** is where the plans are put into action. The key steps are:

- **Step 1 – Kickoff Meeting:** Formally starts the project work. Team is aligned on objectives, roles, deliverables, and communication protocols.
- **Step 2 – Direct and Manage Project Work:** The project manager coordinates team activities, manages resources, and ensures work is performed per the project plan.
- **Step 3 – Acquire and Develop the Project Team:** Resources are onboarded, skills are assessed, and training is provided where necessary.
- **Step 4 – Manage the Project Team:** Track team performance, resolve conflicts, provide feedback, and handle interpersonal issues.
- **Step 5 – Manage Communications:** Distribute information to stakeholders as per the Communications Management Plan.
- **Step 6 – Manage Stakeholder Engagement:** Work with stakeholders to meet their expectations and address issues proactively.
- **Step 7 – Conduct Procurements:** Select vendors, award contracts, and manage external resource delivery.

- **Step 8 – Implement Quality Assurance:** Audit processes and deliverables to ensure compliance with quality standards.
 - **Step 9 – Implement Approved Changes:** Process and apply approved change requests from the Change Control Board.
-

Q3. What are the tasks completed during Project Development phase?

During the Project Development (Execution) phase, the following tasks are completed:

- **System Design & Architecture:** High-level and low-level design documents are finalized.
 - **Coding / Implementation:** Software modules, features, and components are developed by the team.
 - **Unit Testing:** Individual modules are tested by developers to verify correctness.
 - **Integration:** Modules are combined and tested together to ensure interoperability.
 - **System Testing:** The complete system is tested against requirements for functional and non-functional correctness.
 - **User Acceptance Testing (UAT):** End-users validate that the system meets their needs.
 - **Bug Fixing & Rework:** Defects identified during testing are resolved.
 - **Documentation:** Technical documentation, user manuals, and API docs are prepared.
 - **Training:** End-user and operational staff training is conducted.
 - **Deployment / Release:** The system is deployed to the production environment.
 - **Status Reporting:** Regular progress reports are prepared and shared with stakeholders.
-

Q4. What are the key points to measure Project Performance?

Project performance is measured to determine whether the project is on track in terms of scope, schedule, and cost. Key measurement methods and metrics include:

Earned Value Management (EVM) Metrics:

- **Planned Value (PV):** The authorized value of work scheduled to be done.
- **Earned Value (EV):** The authorized value of work actually completed.
- **Actual Cost (AC):** The actual cost incurred for the work performed.
- **Schedule Variance (SV) = EV - PV:** Positive means ahead of schedule; negative means behind.
- **Cost Variance (CV) = EV - AC:** Positive means under budget; negative means over budget.
- **Schedule Performance Index (SPI) = EV / PV:** SPI > 1 means ahead of schedule.
- **Cost Performance Index (CPI) = EV / AC:** CPI > 1 means under budget.

Other Key Performance Indicators:

- **Milestone Completion Rate:** Percentage of planned milestones achieved on time.
 - **Defect Density & Quality Metrics:** Number of defects per unit of deliverable.
 - **Team Velocity (Agile):** Story points completed per sprint.
 - **Customer Satisfaction Scores:** Stakeholder feedback on deliverable quality.
 - **Risk Burn-Down:** Rate at which identified risks are being mitigated or closed.
-

Q5. Why Project Team is developed, what are inputs and outputs to acquire project team?

Develop Project Team is the process of improving team members' competencies, team interaction, and the overall team environment to enhance project performance. A well-developed team is critical for productivity, collaboration, and delivering quality results.

Why is the Project Team Developed?

- To improve individual skills and fill technical knowledge gaps.
- To foster trust, cohesion, and open communication among team members.

- To reduce conflict and improve morale and motivation.
- To increase overall team performance and project delivery quality.
- To ensure team members are aligned with project goals and can work effectively together.

Inputs to Acquire Project Team:

- Project Management Plan (Resource Management Plan)
- Project Documents: Project Schedule, Resource Calendars, Resource Requirements, Stakeholder Register
- Enterprise Environmental Factors (EEFs): Existing human resources, organizational structure, geographic locations, personnel administration policies
- Organizational Process Assets (OPAs): Policies for hiring, HR templates, historical staffing data

Outputs of Acquire Project Team:

- **Physical Resource Assignments:** Documentation of resources allocated to the project.
 - **Project Team Assignments:** List of team members and their roles.
 - **Resource Calendars:** Updated calendars showing availability of acquired resources.
 - **Change Requests:** If staff acquisition impacts cost/schedule baselines.
 - **Project Management Plan Updates:** Updates to Resource and Cost baselines.
 - **Project Document Updates:** Lessons learned, resource requirements updates.
-

Q6. What are the inputs and outputs of Integrate Change Control?

Perform Integrated Change Control is the process of reviewing all change requests, approving or rejecting changes, and managing changes to deliverables, project documents, and the project management plan. It ensures that only approved changes are implemented.

Inputs:

- Project Management Plan (Change Management Plan, Configuration Management Plan, Scope/Schedule/Cost Baselines)
- Project Documents: Basis of Estimates, Requirements Traceability Matrix, Risk Report
- Work Performance Reports: Schedule & cost variance reports, quality metrics
- Change Requests: Formal requests for modifications from any stakeholder or team member
- Enterprise Environmental Factors (EEFs): Legal restrictions, organizational governance framework
- Organizational Process Assets (OPAs): Change control procedures, templates, historical change logs

Outputs:

- **Approved Change Requests:** Changes reviewed and approved by the Change Control Board (CCB), ready for implementation.
 - **Project Management Plan Updates:** Any baseline (scope, schedule, cost) updated per approved changes.
 - **Project Document Updates:** Change log, requirements documentation, risk register updates.
-

Q7. What are the activities involved in Monitoring?

Monitoring is the process of collecting, measuring, and reporting project performance information. It runs in parallel with execution throughout the project life cycle. Key monitoring activities include:

- **Tracking Project Progress:** Comparing actual work completed against the schedule baseline to identify slippages.
- **Cost Monitoring:** Comparing actual costs against the cost baseline; computing EVM metrics (SV, CV, SPI, CPI).

- **Scope Monitoring:** Verifying that work is being performed within the defined scope; checking for scope creep.
- **Quality Monitoring:** Reviewing deliverables against quality standards; tracking defects and test results.
- **Risk Monitoring:** Reviewing the risk register, tracking identified risks, and watching for new risks.
- **Issue Monitoring:** Tracking open issues in the issue log and ensuring timely resolution.
- **Stakeholder Engagement Monitoring:** Assessing stakeholder satisfaction and engagement levels.
- **Procurement Monitoring:** Tracking vendor performance against contractual obligations.
- **Status Reporting:** Compiling Work Performance Reports and distributing them to stakeholders.
- **Change Request Monitoring:** Tracking all change requests through the integrated change control process.

Monitoring feeds directly into the Control processes — if a variance is detected during monitoring, corrective or preventive actions are initiated.

Q8. What is Closing phase of the Project Life cycle?

The **Closing Phase** is the final phase of the Project Life Cycle. It formally concludes all activities across all process groups and officially closes the project or a phase. It ensures that all work is completed, contracts are closed, and knowledge is transferred.

Key Activities in the Closing Phase:

- **Obtain Final Acceptance:** Confirm with the client or sponsor that all deliverables meet acceptance criteria and get formal sign-off.
- **Close Procurements:** Complete and settle all procurement contracts; verify vendor deliverables and release vendors.
- **Release Project Resources:** Release team members back to their functional units or other projects; update resource records.
- **Document Lessons Learned:** Capture what went well, what didn't, and what should be done differently in future projects.
- **Archive Project Documents:** Store all project documents, plans, reports, and records in organizational repositories for future reference.
- **Conduct Post-Project Review / Retrospective:** Evaluate overall project performance against objectives, baselines, and KPIs.
- **Issue Final Project Report:** Summarize project outcomes, financials, schedule performance, and stakeholder satisfaction.
- **Celebrate Success:** Acknowledge and reward team contributions to boost morale and reinforce positive culture.

Importance of the Closing Phase:

- Ensures organizational learning through lessons documented and shared.
 - Prevents lingering obligations through formal contract and administrative closure.
 - Provides a formal transition of deliverables and operational responsibility to the business.
 - Validates that project objectives were achieved and value was delivered.
-