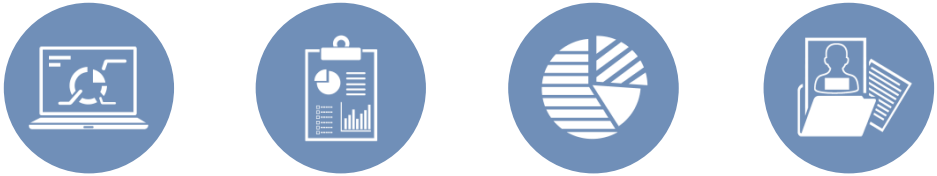
Introduction to Project Management

Lesson 01—Introduction to Project Management



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Objectives

After completing this lesson, you will be able to:

- Define project, project management, program management, and portfolio management
- Identify the roles of project management office
- Identify the project constraints
- Describe different organization structure
- Differentiate between a project life cycle and a product life cycle
- List the five project management process groups

The definition of Project is as follows:

A project is a temporary endeavor undertaken to create a unique product, service, or result.

EXAMPLE

Developing a new product, service, or result; constructing a building, industrial plant, or infrastructure; and implementing, improving, or enhancing existing business processes and procedures.

The definition of Project Management is as follows:

> Project management is the application of knowledge, skills, and tools and techniques applied to project activities to meet the project requirements.

Project management is performed by applying and integrating the 47 project management processes, which are logically grouped into five process groups.

The definition of Program Management is as follows:

> The application of knowledge, skills, tools, and techniques to a program to meet the program requirements and to obtain benefits and control not available by managing projects individually.

A program is defined as a group of related projects, subprograms, and program activities managed in a coordinated way to obtain benefits not available from managing them individually.

The definition of Portfolio Management is as follows:

> Portfolio management is the centralized management of one or more portfolios to achieve strategic objectives.

Portfolio management includes identifying, prioritizing, authorizing, managing, and controlling projects, programs, and other related work to achieve strategic business objectives.

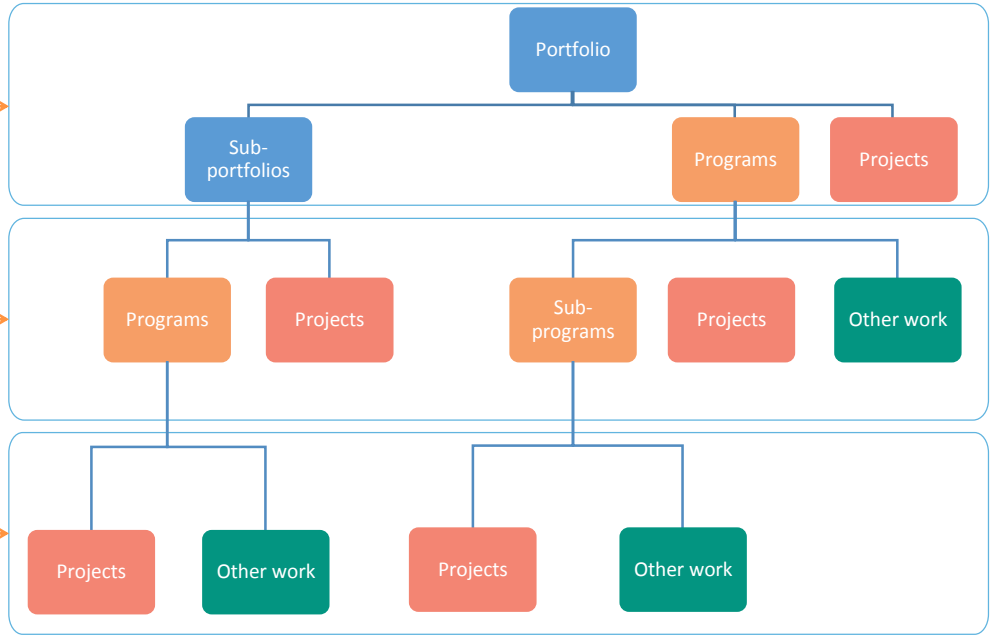
Relationship between Portfolios, Programs, and Projects

The relationship between Portfolios, Programs, and Projects is shown below.

Represents a portion of an organization's overall business strategy.

The components can further be broken down into smaller components for ease of management.

A portfolio may contain programs, projects, and also other work.



A Project Management Office (PMO) is a specific type of body, or department, within an organization.

The roles of PMO are as follows:

Primary Roles

PMO usually has one or a combination of the following three primary roles:

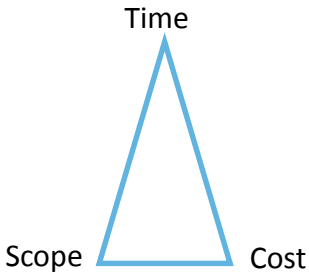
- It provides the policies, methodologies, and tools and templates for managing projects within the organization.
- It provides support and training in the organization on how to manage projects.
- It provides project managers for ongoing projects in the organization.

Other Roles

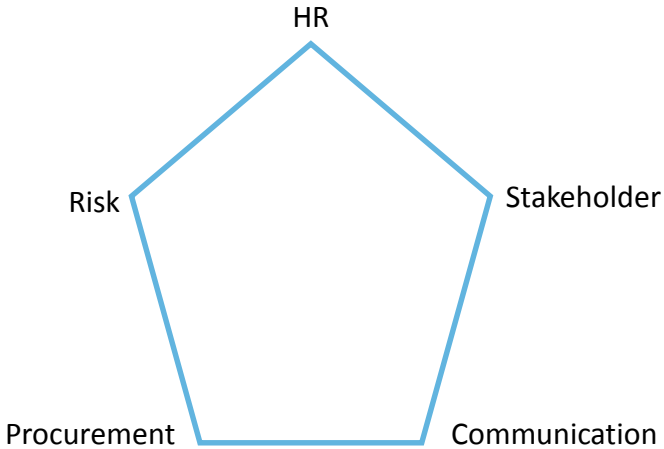
PMO may also help in the following areas:

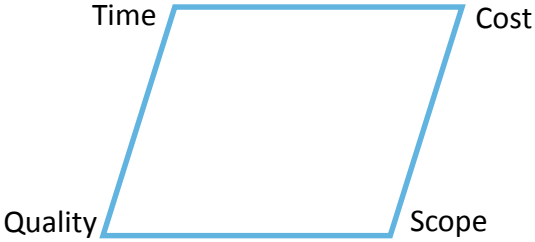
- Managing interdependencies between projects.
- Selecting, managing, and deploying shared or dedicated project resources.
- Terminating projects.
- Organizing lessons-learnt sessions.
- Maintaining the project management knowledge base for an organization.

Project constraints can be summarized as follows:



Integration





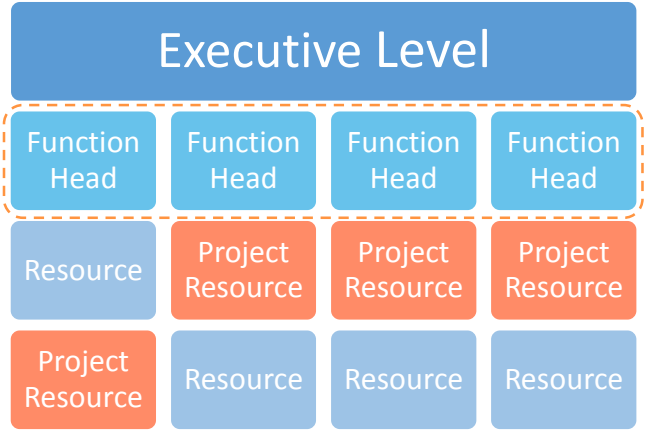
The different organization structures, based on the level of authority vested in the project manager, are as follows:

Functional Organization	• The organization is grouped by areas of specialization within different functional areas (e.g., marketing, accounting, engineering, etc.). • Each employee reports to a functional manager.
Projectized Organization	• The organization's resources mostly work on projects. • The project manager has complete control over the resources.
Matrix Organization	• This is a blend of functional and projectized structures. There may be weak matrix, strong matrix, and balanced matrix organizations. • The resources report into the functions, but may also work on projects.

The term 'tight matrix' refers to a 'co-located' team, i.e., a team that has been placed in the same location enhance their performance.

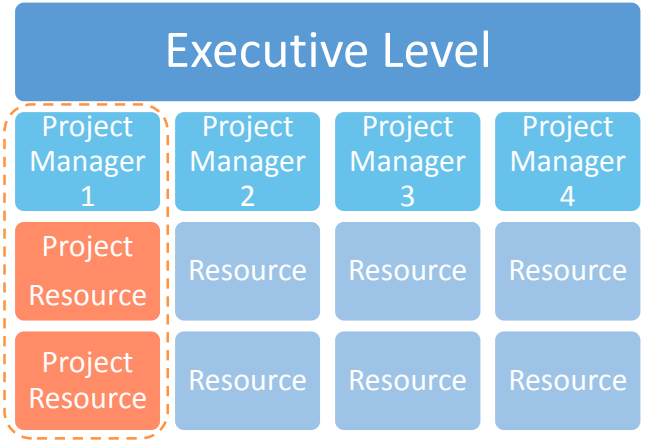
Characteristics of a functional organization are as follows:

- Resources are grouped by functions or departments.
- Functions have a definite role and are headed by a supervisor.
- All the resources report directly into their functions.
- Project manager's role is not explicitly defined. Resources from within the function play the role of a project manager.
- Functional organizations provide an opportunity for specialization.



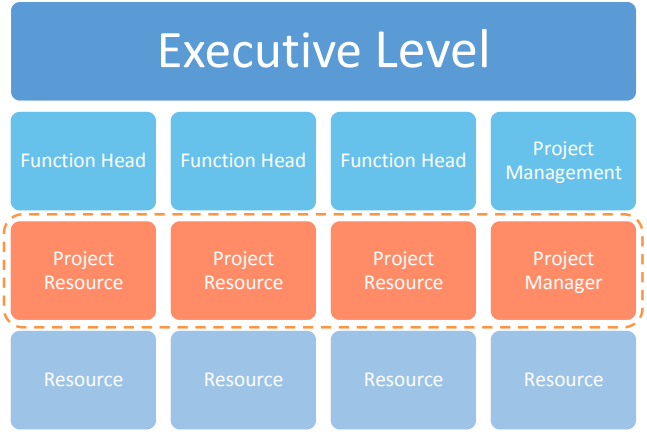
Characteristics of a projectized organization are as follows:

- Resources are aligned to projects.
- Project managers have complete control over the project resources.
- Project execution becomes easier because of the dedicated resources.
- Role of the resources cease once the project is completed.
- Scope for functional specialization is limited.



Characteristics of a matrix organization are as follows:

- Resources report to functional managers and aligned to project managers.
- In a weak matrix, the authority of the project manager is the weakest, and strongest in a strong matrix.
- It provides for optimal utilization of resources and functional specialization.
- Dual reporting structure increases the communication cost.



Project Lifecycle vs. Product Lifecycle

Project life cycle spans the initiation of a project until the closure, while product life cycle encompasses the operational and maintenance phases.

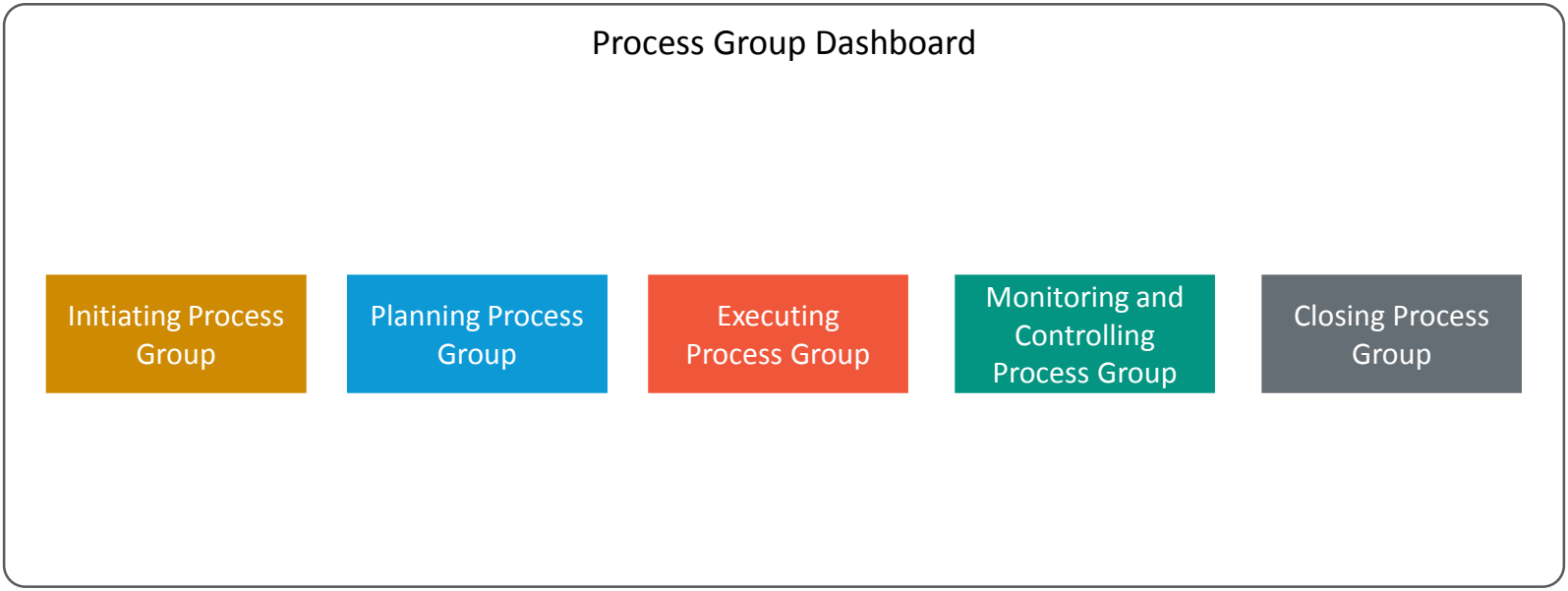
- A typical product life cycle starts with the conception of the product and goes until its withdrawal from the market or when it becomes obsolete.
- Product has a long life cycle; it can require or spawn many projects over its life.
- A project life cycle depends upon the control needs of the performing organization or the organization's preference defined in their project execution methodology.

Project Management Process Map

47 processes in project management are grouped into 10 Knowledge Areas, and mapped to 5 Process Groups.

Knowledge Areas		Project Integration Management	Project Scope Management	Project Time Management	Project Cost Management	Project Quality Management	Project Human Resource Management	Project Communications Management	Project Risk Management	Project Procurement Management	Project Stakeholder Management
Project Management Process Groups	Initiating Process Group	Develop Project Charter									Identify Stakeholders
	Planning Process Group	Develop Project Management Plan	Plan Scope Management Collect Requirements Define Scope Create WBS	Plan Schedule Management Define Activities Sequence Activities Estimate Activity Resources Estimate Activity Durations Develop Schedule	Plan Cost Management Estimate Costs Determine Budget	Plan Quality Management	Plan Human Resource Management	Plan Communications Management	Plan Risk Management Identify Risks Perform Qualitative Risk Analysis Perform Quantitative Risk Analysis Plan Risk Responses	Plan Procurement Management	Plan Stakeholder Management
	Executing Process Group	Direct and Manage Project Work				Perform Quality Assurance	Acquire Project Team Develop Project Team Manage Project Team	Manage Communications		Conduct Procurements	Manage Stakeholder Engagement
	Monitoring and Controlling Process Group	Monitor and Control Project Work Perform Integrated Change Control	Validate Scope Control Scope	Control Schedule	Control Costs	Control Quality		Control Communications	Control Risks	Control Procurements	Control Stakeholder Engagement
	Closing Process Group	Close Project or Phase								Close Procurements	

The five Project Management Process Groups are as follows:



Initiating Process Group defines a new project or phase. When the project charter is approved, the project is officially authorized.

Inputs	Actions taken
• Project statement of work • Agreements • Business case • Enterprise environmental factors • Organizational process assets • Procurement documents	• Review the statement of work and business case • Clarify the assumptions and constraints • Establish the feasibility of the project • Identify the key stakeholders of the project and their interest in the project • Confirm the organization's willingness and capability to work on the project

Planning Process Group establishes the total scope of effort, objectives, and course of action required to attain those objectives.

Inputs

- Project charter
- Requirements
- Stakeholder register
- Organizational process assets
- Enterprise environmental factors
- Resource calendars
- Work performance information

Actions taken

- Refine requirements and convert it into a scope statement and the work breakdown structure
- Get stakeholder approval and buy-in
- Develop the baseline scope, cost, and schedule
- Select project team and determine their roles and responsibilities
- Determine project's quality standards and plan
- Framework for risk management, identification, analysis, and response planning
- Determine what needs to be purchased
- Determine how to execute and control the project
- Document the project management plan
- Handle updates on the plan arising out of change requests

Executing Process Group completes the work defined in the project management plan to satisfy the project specifications.

Inputs	Actions taken
• Project management plan • Resource calendars • Project documents • Enterprise environmental factors • Seller proposals • Approved change requests • Quality control measurements • Work performance report • Make-or-buy decisions • Source selection criteria	• Manage stakeholder engagements • Deliver the work packages as planned • Implement quality assurance activities • Produce project reports • Remove project bottlenecks • Organize team building activities • Organize training for the team members • Conduct project progress meetings • Implement approved changes, corrective actions, preventive actions, and defect repair • Finalize procurement arrangements and contracts

Monitoring and Controlling Process Group tracks, reviews, and regulates the progress and performance of the project; identifies and initiates the changes to the plan when required.

Inputs

- Deliverables
- Work performance data
- Change requests
- Organizational process assets
- Project management plan and documents
- Selected sellers

Actions taken

- Measure project performance against the baseline
- Determine variances and take appropriate action
- Recommend changes, corrective, and preventive action
- Facilitate conflict resolution
- Identify root causes of problems
- Obtain formal acceptance for the deliverables
- Administer contracts with sellers
- Control changes
- Conduct status review meetings, etc.

Closing Process Group

Closing Process Group finalizes the activities across all Project Management Process Groups to formally complete the project, phase, or contractual obligations.

Inputs

- Project plan and documents
- Accepted project deliverables
- Procurement documentation
- Organizational process assets
- Enterprise environmental factors

Actions taken

- Confirm that all project requirements are met
- Obtain formal signoff from customer
- Make payment to all parties and update cost records
- Complete contract closure
- Update lessons learned database
- Measure customer satisfaction
- Handover project deliverables to operations team
- Release resources from the project

QUIZ 1	A project manager is working on a project to construct a new bridge. The resources report to the functional manager and are mainly occupied with operational work. The project manager has no authority to properly assign resources. What type of organizational structure is the project manager in?

a. Functional

b. Projectized

c. Strong Matrix

d. Weak Matrix

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b. Projectized

c. Strong Matrix

d. Weak Matrix

Answer: a.

Explanation: In a functional organization, team members are more concerned with their daily functional activities than with the project activities.

QUIZ 2

Who does the project team report to in a projectized organization?

a. No one

b. Project manager

c. Functional manager

d. CEO

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a. No one

b. Project manager

c. Functional manager

d. CEO

Answer: b.

Explanation: In a projectized organization, project team reports to the project manager.

QUIZ 3	How is a project life cycle different from product life cycle?

a. A project life cycle has no methodology

b. A project life cycle depends on the control needs of the performing organization

c. A project life cycle can contain many product life cycles

d. A project life cycle only includes specific project management activities

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Answer: b.

Explanation: A project life cycle depends on the control needs of the performing organization. Choice C is just the opposite, i.e., a product life cycle can include many projects through its life cycle, not the other way around.

Summary

Here is a quick recap of what was covered in this lesson:

- Project management is the application of knowledge, skills, and tools and techniques applied to project activities to meet the project requirements.
- PMO provides the policies, methodologies, and tools and templates for managing projects within the organization.
- Triple constraints are scope, cost, and time.
- Functional, projectized, and matrix are the three types of organization structures, based on the level of authority given to the project manager.
- Project life cycle spans the initiation of a project until the closure while product life cycle, also encompasses the operational and maintenance phases.
- There are 47 processes in project management grouped into ten knowledge areas, and mapped to five Process Groups.

Thank You