Description of Program Management Processes (Initiating, Planning)
Topics Covered

- Program Management Process Groups – salient features
- Description of all processes in Initiating Process Group:
  - Initiate Program
  - Authorize Program
  - Initiate Team
- Description of all processes in Planning Process Group:
  - Develop Program Management Plan
  - Interface Planning
  - Transition Planning
  - Resource Planning
  - Scope Definition
  - Create Program Work Breakdown Structure
  - Schedule Development
  - Cost Estimating and Budgeting
  - Quality Planning
  - Human Resource Planning
  - Communications Planning
  - Risk Management Planning and Analysis
  - Plan Purchases and Acquisitions
  - Plan Program Contracting
Summary of Program Management Process Groups

There are five Program Management Process Groups (briefly discussed below, and covered in detail in next chapter)

- **Initiating Process Group**: This defines and authorizes the program or a project within the program

- **Planning Process Group**: This describes the best alternative courses of action to deliver the benefits of the program

- **Executing Process Group**: This integrates projects, people, and other resources to carry out the plan for the program and deliver the program's benefits.

- **Monitoring and Controlling Process Group**: This requires that the program and its component projects be monitored against the benefit delivery expectations and appropriate corrective actions taken if necessary.

- **Closing Process Group**: This formalizes acceptance of a product, service, or benefit and brings the program to an orderly end.
Initiating Process Group

- Initiation of a program can be because of as the result of:
  - a strategic plan
  - a strategic initiative to fulfil an initiative within a portfolio
  - The result of a decision to bid for a contract from an external customer.

- Three important activities are performed during the Initiate Process Group:

  1. Initiate Program
  2. Authorize projects
  3. Initiate Team
Main objectives of Initiate program are to:

- Help define the scope and benefit expectations of the program.
- Ensure that authorization and initiation of the program are linked to the organization's ongoing work and strategic priorities.

Please note (optional): This process is similar to the processes, “Develop Project Charter”, “Develop Preliminary Project Scope Statement” for projects: for clarifications and better understanding, you may refer to Page 81 – Page 88, PMBOK Third Edition
Major inputs and outputs for Initiate Program include:

**INPUTS**
1. Business Case
2. Investment Analysis
3. Funding for the initial phases of program
4. Organizational strategic and tactical plans

**OUTPUTS**
1. Documentation for contract or statement of work
2. Program Charter
3. Program Manager identification
4. Program scope statement (preliminary)
5. Program Benefits statement
6. Program Selection Criteria
7. Benefits Realization plan
8. Program Sponsor Identification
Initiating Process Group (Initiate Program - Inputs)

1. Business Case (Input): The organization’s strategic plan and business needs help define the business case for the program (i.e. why the program should be undertaken).

2. Investment Analysis (Input): This includes analysis of what kind of investment would be required for the program including financial ratios for the program e.g. Return on Investment, Payback Period, Internal Rate of Return (IRR) and Net Present Value (NPV).

3. Funding for the initial phases of the program (Input): Some funding is required initially to do the high level estimates of cost, time etc. for the project and to support the funding requirements for the program management team when the program is initiated.

4. Organizational strategic and Tactical Plans (Input): It is important to know about the Organizational strategic plan so that the selected programs provide benefits to aid the Organization’s long term goals.
Initiating Process Group
(Initiate Program - Outputs)

1. Documentation for contract or statement of work (Output): If some work for the program is going to be done as part of a contract, the documentation for the contract or statement of work will be an output from this process and will define the work which will be contracted to an external vendor.

2. Program Charter (Output): The program charter links the program to the ongoing work of the organization. It often contains the vision statement that defines the desired organizational end state to follow for successful completion of the program, and is used as the vehicle to authorize the program.

3. Program Manager identification: The Program Manager should be identified as early as possible (preferably during the Initiate Program phase).

4. Program scope statement (preliminary): This includes objectives and high-level deliverables of the program.
Initiating Process Group
(Initiate Program - Outputs)

5. Program Benefits statement: This is a comprehensive statement which clearly states the benefits that will be derived from the program and helps the program management team justify costs and resource allocations.

6. Program Selection Criteria: There might be multiple programs which the company can select from. The Program Selection Criteria lists down the criteria which were used to select a particular program.

7. Benefits Realization plan: Once the Program Benefits statement is finalized, the Benefits Realization plan states how the benefits from the program would be realized over a period of time.

8. Program Sponsor Identification: Every program should identify a program sponsor (or program champion) who would be responsible for providing funding for the program and helping the program get appropriate resources for successful implementation.
Main objectives of Authorize program are to:
- Perform the program management activities to initiate a component within the program.
- Develop a business case that will secure funding for and allocating budget to the project.
- Ensure that a program manager is assigned.
- Communicate project-related information to the stakeholders.
- Redeploy of human and other resources from one project or activity to another.
- Update all program-level documentation and records dealing with the project to reflect the new status of the projects.
Major inputs and outputs for Initiate Program include:

**INPUTS**

1. Program Scope Statement
2. Project Selection Criteria
3. Strategic Plan

**OUTPUTS**

1. Program Reporting Requirements
2. Project Charter
3. Project Manager Assignment
4. Project Sponsor Identification
5. Project Funding Approval

Please note:

- The Program Manager may be the sponsor of individual projects
- The Program Manager will be involved with determining the project charter of projects in the program: so, all the projects should be aligned with the program objectives
Main objectives of Initiate Team are to:

- Ensure that human resources are assigned to and working on the program. (assignment could be either from inside the organization or by acquiring resources through external recruitments)
- Develop a team to accomplish the tasks necessary to commence the Planning Processes – some of these resources may be redeployed and other resources may be included as part of the program for Execution and subsequent phases.
Major inputs and outputs for Initiate Program include:

**INPUTS**

1. Recruitment Practices
2. Staffing pool description

**OUTPUTS**

1. Core Program Team Assignments
2. Program Manager Assignment
3. Program Team Directoryzz

Please note:
- The Staffing Pool description provides a description of the resources in the resource pool who may be available for selection in the program
- The Program Manager should definitely be assigned at this stage to lead the Program Management Team during the Planning Processes
Planning Process Group

- The Planning Process Group contains the processes needed to determine how the program will be implemented and position it for successful execution.

- These processes involve formalizing the scope of the work to be accomplished by the program and identifying the deliverables that will satisfy the program's goals.

- The most important output of the Planning Process Group is the Program Management Plan, which defines how the program will be carried out. This also includes all the other subsidiary plans created as part of the planning process group.
The Planning Process Group contains 14 processes as mentioned below:

1. Develop Program Management Plan
2. Interface Planning
3. Transition Planning
4. Resource Planning
5. Scope Definition
6. Create Program WBS
7. Schedule Development
8. Cost Estimating and Budgeting
9. Quality Planning
11. Communications Planning
12. Risk Management Planning, Analysis
13. Plan Program Purchases, Acquisitions
14. Plan Program Contracting

MONITORING AND CONTROLLING PROCESS

CLOSING PROCESS
Planning Process Group (1. Develop Program Management Plan)

- Main objectives of Develop Project Management Plan are to:
  - Consolidate the outputs of the other Planning Processes, including strategic planning, to create a consistent, coherent set of documents that can be used to guide program execution, monitoring and control and closing
  - Develop the following subsidiary plans (which are included as part of Program Management Plan):
    - Benefits management plan
    - Communications management plan
    - Cost management plan
    - Contracts management plan
    - Interface management plan
    - Scope management plan
    - Procurement management plan
    - Quality management plan
    - Resource management plan
    - Risk response plan
    - Schedule management plan
    - Staffing management plan.
Major inputs and outputs for Develop Program Management Plan include:

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>OUTPUTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Subsidiary Plans</td>
<td>1. Program Management Plan</td>
</tr>
<tr>
<td>2. Project Planning process outputs</td>
<td>2. Program Benefits Statement (updates)</td>
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</tbody>
</table>

Please note:
- Develop Program Management Plan is an iterative process and the Program Management Plan is a living document (i.e. it can be regularly updated and changed during the program planning and implementation processes)

Please note (optional): This process is similar to the process, “Develop Project Management Plan” for projects: for clarifications and better understanding, you may refer to Page 88 – Page 91, PMBOK Third Edition
Main objectives of Interface Planning are to:

- Identify the interrelationships that exist within a program with other programs in the portfolio or with factors outside the program. It involves describing the characteristics of these interfaces and creating the plan to ensure that these interfaces are established and maintained.

- Identify interdependencies and communications channels between different interfaces of the program with other programs/portfolios.
Planning Process Group
(2. Interface Planning) continued

Major inputs and outputs for Interface Planning include:

**INPUTS**

1. Communications Management Plan
2. Staffing Management Plan
3. Program Schedule
4. Risk Register
5. Stakeholder Analysis Chart
6. Program Work Breakdown Structure

**OUTPUTS**

1. Interface Management Plan
2. Program Interfaces
3. Program Schedule (updates)
4. Requirements for individual project communications planning

Please note:

- Interface Planning is usually done in conjunction with Human Resource Planning and Communications Planning Processes.
- Interface Planning not only helps in identifying interdependencies; it also helps in determining the formal communication channels and decision making relationships (valuable information required for communications planning)
Planning Process Group  
(3. Transition Planning)

- Main objectives of Transition Planning are to:
  - Identify and Plan for transitions from the program team to the recipients of on-going activities that result from the program (this ensures that program benefits are sustained once they are transferred to the organization)
  - Ensure that the scope of the transition is defined, the stakeholders in the receiving organizations or functions are identified, the program benefits are measured and sustainment plans exist, and the transition itself is eventually executed successfully.
Major inputs and outputs for Transition Planning include:

**INPUTS**
1. Program Scope Statement
2. Program Schedule
3. Stakeholder Analysis Chart

**OUTPUTS**
1. Transition Plan
2. Transition Agreement

Please note:
- Within the life of the program, there may be multiple transition events as individual projects close, as interdependent projects close, or as other work activity within the program close.
- The receiver in the transition process will vary depending on the event and on the program type. A product support organization could be the receiver for a product line that a company develops. For a service provided to customers, it could be the service management organization. If the work products are developed for an external customer, the transition could be to the customer's organization.
Planning Process Group
(4. Resource Planning)

- Main objectives of Resource Planning are to:
  - Determine the people, equipment, materials and other resources that are needed, and in what quantities, in order to perform program activities
  - Ensure efficient allocation of resources across projects in the program to ensure that they are not overcommitted.
  - Lessons Learned, Organizational Process Assets and Historical information regarding what types of resources were required for similar projects on previous programs should be used if available.

Please note(optional): This process is similar to the process, “Activity Resource Estimating” for projects: for clarifications and better understanding, you may refer to Page 135 – Page 143, PMBOK Third Edition
Planning Process Group  
(4. Resource Planning) continued

Major inputs and outputs for Resource Planning include:

**INPUTS**

1. Program Schedule  
2. Resource Pool Description  
3. Program Scope Statement  
4. Program Work Breakdown Structure (PWBS)

**OUTPUTS**

1. Resource Management Plan  
2. Resource Requirements

Please note:  
- In Resource Planning, priority should be given to those skills that are critical to the program but are not possessed by any program team members.
Planning Process Group  
(5. Scope Definition)

- Main objectives of Scope Definition are to:
  - Develop the program scope statement, which becomes the basis for future program decisions. It also identifies the scope boundaries of the program.
  - Develop the scope management plan which identifies how the scope will be managed throughout the program and how to handle scope change.

Please note (optional): This process is similar to the processes, “Scope Planning” and “Scope Definition” for projects: for clarifications and better understanding, you may refer to Page 103 – Page 112, PMBOK Third Edition
Major inputs and outputs for Scope Definition include:

**INPUTS**
1. Program Charter
2. Benefits Realization Plan
3. Preliminary Program Scope Statement

**OUTPUTS**
1. Program Scope Statement
2. Scope Management Plan

Please note:
- Scope is progressively elaborated i.e. we may have less information about scope early on by the scope will be better defined at the later phases of the program.
Planning Process Group
(6. Create Program WBS)

- Main objectives of Create Program WBS are to:
  - Produce a program work breakdown structure (PWBS) that clearly communicates from the program-level perspective:
    - The technical objectives of the program
    - The final products, services, or results of the work to be performed
  - Clarify the scope of the program, help identify logical groupings of work for the projects/operations involved in the program, identify the program interfaces.
  - The decomposition should stop at the level of control required by the program manager. Typically, this will correspond to the first one or two levels of the WBS of the included project/operations. In this way, the PWBS serves as the controlling framework for developing the program schedule, and defines the program manager's management control points that will be used for earned value management, as well as other purposes.

Please note (optional): This process is similar to the process, “Create WBS” for projects: for clarifications and better understanding, you may refer to Page 112 – Page 118, PMBOK Third Edition
Major inputs and outputs for Create Program WBS include:

**INPUTS**
1. Scope Management Plan
2. Program Scope Statement
3. Benefits Realization Plan

**OUTPUTS**
1. Program Management Plan (updates)
2. Program Work Breakdown Structure
3. Program Work Breakdown Structure Dictionary (PWBS)

Please note:
- The PWBS components at the lowest level of the PWBS are known as **program packages**.
- The **PWBS Dictionary** (which is an integral part of the PWBS) contains the complete description of the PWBS components and any additional relevant details.
Planning Process Group (7. Schedule Development)

- Main objectives of Schedule Development are to:
  - Define the program components needed to produce the program deliverables (this is done through progressive elaboration of the PWBS)
  - Determine the order in which the components should be executed,
  - Identify significant milestones during the performance period of the program
  - Estimate the amount of time required to accomplish each milestone
  - Create a plan by which the schedule will be managed over the life of the program. This schedule management plan becomes part of the program management plan.

Please note (optional): This process is similar to the process, “Schedule Development” for projects: for clarifications and better understanding, you may refer to Page 143 – Page 152, PMBOK Third Edition
Major inputs and outputs for Schedule Development include:

**INPUTS**
1. Basis of Estimates
2. Calendars
3. Milestones
4. Program Work Breakdown Structure (PWBS)
5. Project Schedule Information
6. Resource capabilities and availability
7. Internal and External Dependencies

**OUTPUTS**
1. Program Schedule
2. Resource Requirement (updates)
3. Schedule Management Plan

Please note:
- During schedule development, we determine the timing of the program packages – this helps to forecast the date on which the program will finish, as well as finish dates for the important milestones within the program.
Planning Process Group
(8. Cost Estimating and Budgeting)

- Main objectives of Cost Estimating and Budgeting are to:
  
  ◦ Aggregate all costs at the program level into a program estimate.

  ◦ Establish budgets for the program based on the budgets for the individual projects, the non-project activity and any financial constraints that impose boundaries on the budget. The latter may be a consequence of fiscal year budgetary planning cycles or funding limits for particular periods.

Please note (optional): This process is similar to the processes, “Cost Estimating” and “Cost Budgeting” for projects: for clarifications and better understanding, you may refer to Page 157 – Page 171, PMBOK Third Edition

Major inputs and outputs for Cost Estimating and Budgeting include:

<table>
<thead>
<tr>
<th>INPUTS</th>
<th>OUTPUTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Funding Availability</td>
<td>2. Program Budget</td>
</tr>
<tr>
<td>3. Program Work Breakdown Structures (PWBS)</td>
<td></td>
</tr>
<tr>
<td>4. Resource Management Plan</td>
<td></td>
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<tr>
<td>5. Contingency reserve amount determinations</td>
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</tbody>
</table>

Please note:
- Cost Estimating and Budgeting is done either by the program team for the entire program or aggregated based on individual estimates of projects and work packages.
Main objectives of Quality Planning are to:

- Determine which standards that are relevant to the program and specify how to satisfy the standards.
- Take advantage of existing quality expertise and methodologies (ISO 9000, Six Sigma, etc.) within the program domain.

Please note (optional): This process is similar to the process, “Quality Planning” for projects: for clarifications and better understanding, you may refer to Page 179 – Page 187, PMBOK Third Edition
Major inputs and outputs for Quality Planning include:

**INPUTS**
1. Environmental Factors and Legislation
2. Product Description
3. Program Scope Statement

**OUTPUTS**
1. Operational Definitions
2. Program Cost of Quality
3. Quality Checklists
4. Quality Improvement Objectives and plan
5. Quality Management Plan
6. Quality Metrics

Please note:
- Quality Planning must happen early in the program to ensure that the competency is available during the planning stages of critical program activities and processes.

- Main objectives of Human Resource Planning are to:
  - Identifying and assign program roles, responsibilities, and reporting relationships.
  - Determine Internal organizational elements e.g. program management team, representatives from functional areas within the enterprise, such as finance and human resources, and key individuals in the project management teams that are under the jurisdiction of the program manager.
  - Determine External organizational entities e.g. external end-users of the products delivered by the program, as well as other organizations with a stake in the program and its successful outcome.

Please note(optional): This process is similar to the process, “Human Resource Planning” for projects: for clarifications and better understanding, you may refer to Page 199 – Page 209, PMBOK Third Edition.

Major inputs and outputs for Human Resource Planning include:

**INPUTS**

1. Core Program Team Assignments
2. Program Interfaces
3. Resource Management Plan
4. Staffing Requirements
5. Stakeholder analysis chart

**OUTPUTS**

1. Organizational Chart
2. Role and Responsibility assignments
3. Staffing Management Plan

Please note:

- The organizational chart is a hierarchical depiction of the organization hierarchy showing the different internal and external resources involved in the program.
Planning Process Group
(11. Communications Planning)

- Main objectives of Communication Planning are to:
  - Determine the information and communication needs of the program stakeholders, This includes:
    - Who needs what information,
    - When the information is needed
    - How the information will be communicated to stakeholders and by whom.

Please note(optional): This process is similar to the process, “Communications Planning” for projects: for clarifications and better understanding, you may refer to Page 221 – Page 228, PMBOK Third Edition
Planning Process Group (11. Communications Planning) continued

Major inputs and outputs for Communications Planning include:

**INPUTS**

1. Communications Requirements
2. Program Reporting Requirements
3. Program Charter
4. Program Scope Statement
5. Program Work Breakdown Structure (PWBS)
6. Stakeholder Analysis Chart

**OUTPUTS**

1. Communications Management Plan
2. Communications Technology Requirements Plan

Please note:
- Proper communications requirements must be conveyed as input to the projects to ensure that information capture from the projects is fed back into the program.
Planning Process Group (12. Risk Management Planning and Analysis)

- Main objectives of Risk Management Planning and Analysis are to:
  - Identify the risks affecting the program and document their characteristics on a regular basis
  - Perform Qualitative and Quantitative risk analysis of the effects of risks and conditions on the delivery of program benefits. This helps prioritise which risks have the greatest effect on the program objectives and which need to be addressed urgently
  - Conduct Risk response planning to develop procedures and techniques to enhance opportunities and reduce threats to the delivery of program benefits.

Please note (optional): This process is similar to the processes for Risk Management Planning for projects: for clarifications and better understanding, you may refer to Page 237 – Page 264, PMBOK Third Edition
Planning Process Group (12. Risk Management Planning and Analysis) continued

Major inputs and outputs for Risk Management Planning and Analysis include:

**INPUTS**

1. Program Schedule
2. Program Budget
3. Program Work Breakdown Structure (PWBS)
4. Risk Categories
5. Stakeholder risk tolerance and thresholds

**OUTPUTS**

1. List of identified and prioritized risks
2. Risk Response Plan

Please note:

- It is important that the program management involvement in risk should support the risk management activities of the program components i.e. individual projects and operations
- The program manager is also responsible for managing a contingency reserve for the program
Planning Process Group (13. Plan Program Purchases and Acquisitions)

- Main objectives of Plan Program Purchases and Acquisitions are to:
  - Analyze the program scope statement and the product descriptions in the program work breakdown structure (PWBS) to determine which PWBS elements will be produced using internal resources available to the program and which will be obtained from outside suppliers. This can be done through Make-or-buy Analysis techniques and helps us determine what to procure and when.
  - Validate product requirements, and
  - Develop procurement strategies.

Please note (optional): This process is similar to the process, “Plan Purchases and Acquisitions” for projects: for clarifications and better understanding, you may refer to Page 269 – Page 281, PMBOK Third Edition
Major inputs and outputs for Plan Program Purchases and Acquisitions include:

**INPUTS**
1. Program Scope Statement
2. Program Charter
3. Program Work Breakdown Structure (PWBS)
4. Resource Management Plan
5. Stakeholder analysis chart

**OUTPUTS**
1. Contract Statement of work
2. Make-or-buy decisions
3. Procurement Management Plan
4. Program-specific qualified vendor list

Please note:
- This process precedes the Plan Program Contracting Process and generates several outputs that become inputs to contract planning.
Main objectives of Plan Program Contracting are to:

- Identify the type and detail of documentation required to implement contracts for suppliers either external to or within the organization.

- Produce the foundation and guidelines on which an effective program-level contract administration process can be implemented.

Please note (optional): This process is similar to the process, “Plan Contracting” for projects: for clarifications and better understanding, you may refer to Page 281 – Page 284, PMBOK Third Edition.
Major inputs and outputs for Plan Program Contracting include:

### INPUTS
1. Procurement Management Plan
2. Contract Type
3. Legal Requirement of Contracts
4. Contract Statement of work

### OUTPUTS
1. Evaluations Criteria
2. Procurement Documents
3. Contracts Management Plan

Please note:
- For a program, the range and complexity of documentation for contracting will be far greater than for a project. For example, most often contracting at the program level needs to address legal issues and considerations.
Summary of concepts learnt in this chapter

In this chapter, we got a better understanding of:

- Salient features of Program Management Process Groups
- Description of all processes in Initiating Process Group
- Description of all processes in Planning Process Group

- We also discovered that several processes were similar to the project management processes as described in the PMBOK (appropriate references were provided where required)

- This will be valuable information for us in the next chapter where we discuss Executing, Monitoring and Controlling and Closing program management process groups in detail
Quiz for this chapter
(Description of Program Management Processes – Initiating, Planning)