PMBOK® GUIDE 6th Summary

For PMP® exam practitioners and experienced project managers

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Contents

Disclaimer

This eBook is not a substitution for the *PMBOK® GUIDE* 6th edition; it is developed to help PMP/CAPM exam practitioners to concentrate on the valuable information and to make their revision of the *PMBOK® GUIDE* 6th edition easier. It will help them to concentrate on the core of the *PMBOK® GUIDE* 6th edition rather than wasting their times re-reading introductions and long paragraphs that can be summarized in one or two lines.

As a student, it is highly recommended reading the *PMBOK Guide 6th* edition first as this is a summary and does not explain things in details and it assumes that each student knows the terms listed here, and /or can find them easily in the *PMBOK® GUIDE* 6th edition.

Additionally, this summary is helpful for practicing project managers. As they are aware of the previous versions of the *PMBOK® GUIDE*, and they can figure out the changes made and can easily find the new topics added to the *PMBOK® GUIDE* 6th edition.

I have developed other materials for PMP\CAPM exam practitioners, which is "Understand *PMBOK® GUIDE* 6th edition". I would also recommend that students read this eBook before reading the original *PMBOK* 6th edition. This book explains the way the PMKOK is structured and makes it easier for student to understand the structure of the PMBOMK 6th edition, rather than entering the dark tunnel without having any clue about what is waiting for him or her towards the ends.

You are welcome to send your suggestions and recommendations for improvements this document.

Please send me your suggestion info@pmlead.net, any contribution will be credit in this document as reviewer.

Finally, please beware that the main reference of the entire document below is the *PMBOK® GUIDE* 6th edition.

Introduction

As indicated earlier, this material is not an alternative of the *PMBOK® GUIDE* 6th edition; it is a complementary material that will help you to do revision before the exam and concentrate on the core of the *PMBOK® GUIDE*. It is also useful for practicing managers who would like to update their PMP skills and knowledge.

The *PMBOK® GUIDE* 6th edition is divided into three parts:

Part 1: A Guide to the Project Management Body of Knowledge (*PMBOK® GUIDE*® GUIDE)

Part 2: The Standard for Project Management

Part 3: Appendices, Glossary, and Index

Additionally, PMI included Agile Practice Guide to the *PMBOK® GUIDE*, which is not within the scope of this document.

Part 1

The *PMBOK® GUIDE*

The *PMBOK® GUIDE* guide is not a methodology, it is a subset of project management good practice and it is not a framework as well. It is a foundation upon which organization can built methodologies, polices, procedures, tools needed for project management

PMBOK® GUIDE provides common consistent vocabulary to be used consistently by project managers and their stakeholders.

The *PMBOK® GUIDE* describes the project management processes, tools, and techniques used to manage a project toward a successful outcome.

The *PMBOK® GUIDE* is developed and evolved based on the project management common standards and best practices

Code of ethics and professional conduct includes standards and mandatory standards that PMI® members, PMP®, and volunteers should accept, adapt, and conduct themselves in accordance with these standards otherwise they will be subject to disciplinary procedures.

Section 1, Fundamental Elements

What is a Project?

A project is a temporary endeavor undertaken to create a unique product, service, or result. The project main characters are:

- **Temporary:** Has a defined beginning and end.
- **Unique**: The product or service is different in some way from all similar products or services.
- **Progressive elaboration**: Continuously improving and detailing a plan as more detailed and specific information become available as the project progresses.
- Project **drives change** in organizations (sectors) to move from one state to a better state.
- It is a mean for achieving an organization's strategic plan.
- Project can create a product, a service, an improvement or a result.
- Every project should enable business value creation.

Projects are initiated as response to four factors:

- Legal, social requirements
- Satisfy stakeholders request or needs
- Change technology, business strategies
- Create, improve or fix products, procedures, or services

What is Project Management?

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

Managing projects includes:

- General Business Management (consistently producing results expected by stakeholders)
- Leading (establishing direction, aligning resources, motivating)
- Communicating (clear, unambiguous, and complete)
- Negotiating (conferring with others to reach an agreement)
- Problem Solving (definition and decision making)
- Distinguish causes and symptoms
- Identify viable solutions
- Influencing Organization (understanding power and politics)
- Requirements identification.
- Define clear and achievable objectives.
- Balancing the competing demands (scope, time, cost, quality, risks …).
- Adapting the specifications, plans, and approach to the different concerns and expectations of the various stakeholders.

Programs and Program Management:

- A Program is a group of related projects managed in coordinated way to obtain benefits and control not available from managing them individually.
- Program management is the centralized, coordinated management of a group of projects to achieve the program's strategic objectives and benefits.
- Program Focuses on interdependencies between the component projects

Portfolio and Portfolio Management:

- A Portfolio is a collection of projects and/or programs and other work that are grouped together to facilitate effective management of that work to meet strategic business objectives.
- Portfolio management is the centralized management of one or more portfolios, which includes identifying, prioritizing, authorizing, managing, and controlling projects, programs and other related work.
- Aligned and consistent with organization strategy
- Prioritize resources allocations between programs and projects

Projects and Strategic Planning:

Projects are often utilized as a means of achieving an organization's strategic plan. Projects are typically authorized as a result of one or more of the strategic considerations mentioned previously.

Sub projects:

Projects are frequently divided into more manageable components or subprojects.
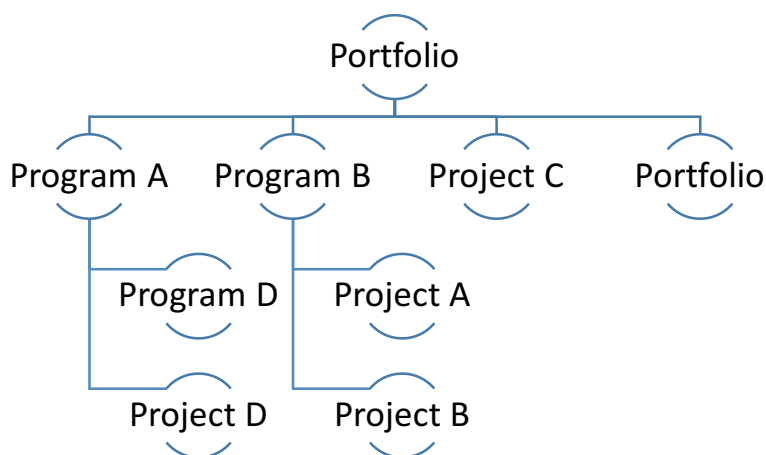
The main differences between portfolio \ program \project

Organizational Project Management			
	Project	**Program**	**Portfolio**
Definition	Unique, temporary, create unique output	Group of related projects, programs work in harmony and in coordination as it is better than managing them individually	Collection of programs, portfolios and projects grouped to achieve strategic objectives
Scope	Defined by objectives	Encompasses the scope of its program components	Organizational scope
Change	Controlled and managed for the benefit of the project	Controlled and managed for the benefit of the program components outcomes	Controlled and managed in the broader internal and external environments
Planning	Project managers plan through the project life cycle	Program managers use high level plans and track dependencies between program components	Portfolio managers create and maintain necessary processes and communications
Management	Project Managers manage project team	Program managers coordinating the activities of the program components	Portfolio managers coordinating the activities of the portfolio components
Monitoring	Project Managers monitor and control the project to meet the scope	Program managers monitor the progress of the components to ensure that all program desired benefits were met	Portfolio managers monitor strategic changes
Success	Measured by meeting the scope, budget, timeline and quality	Measured by the ability to provide the desired benefits to the organization	Measured in aggregate investment performance

- ❖ *Program and project >>>>>> do things right*
- ❖ *Portfolio >>>>>> do right program / project*

Operations Management:

- Focuses on ongoing production and is outside the scope of the project management
- Operation management is responsible for overseeing, directing, and controlling business operations.
- Operations evolve to support day-to-day business, and are necessary to achieve strategic and tactical goals of the business.
- Ongoing operations are outside Of the scope of a project, however, there are intersecting points where the two areas across. Such as, but not limited to:
  - At each closeout phase
  - When developing a new product
  - While improving operations.
  - Until the end of product life cycle
- It is so important for PM to include operational stakeholders in all work and endeavors. As the operational stakeholders should be engaged and their needs identified as part of the stakeholders register, and their influence should be addressed as part of the risk management plan.

Project life cycle

- A project life cycle is the series of phases the project passes through from the initiation to its closure
- The life cycle provides the basic framework for managing the project
- The project life cycle can range from:
  - Predictive (plan-driven approaches): where the product and deliverable are defined at the beginning and any changes to scope are carefully managed. Also referred to as Waterfall life cycle
  - Adaptive (change-driven approaches or agile method): where the product is developed over multiple iterations and detailed scope is defined for each iteration only.
    - Iterative: the scope is determined at the beginning. However the **cost and time are routinely modified** as the team understands the product more.
    - Incremental: the deliverables is produced through series of iterations that successively add functionality within **predetermined timeframe**.
  - Hybrid: is a combination of predictive and adaptive life cycle.
- Cost and staffing levels are low at start and move higher towards the end
- Probability of successfully completing project is low at beginning, higher towards the end as the project continues
- Stakeholder influence is high at the beginning and progressively lowers as the project continues
- The project life cycle is independent from the life cycle of the product produced or modified by the project
- Project Life Cycle defines:
  - Technical work performed in each phase
  - Who is involved in each phase
- Product life cycle is different than the project life cycle where the product is produced by a project

Project phase

- The phases are generally sequential
- The phases can be broken down by functional or partial objectives
- Phases are generally time bounded with start and ending or control point
- Project Phases are marked by the completion of a deliverable (tangible, verifiable work product)
- Review of deliverables and approval/denial are "phase exits, stage gates, or kill points"
- Phases are collected into the Project Life Cycle
- Phase-to-Phase relationship:
  - Sequential relationship: Starts only when the previous phase is complete
  - Overlapping relationship: a phase starts before completion of the previous one
  - Overlapping is a "Schedule compression technique called Fast Tracking"
- Process groups are not the same as project phases
- Examples of project phase names: Design, prototype, build, test, lessons learned...etc.

Project Gate: An activity done at the end of a phase to compare the project progress against the work plan and project documents. Usually the outcome of this activity is to continue or not

Development life cycle

- One or more phases are associated in the development of product or service it is the DLC
- The project manages and the project team identify the best life cycle for each project
- The development life cycle can utilizes various models: Predictive, Iterative, Incremental, Adaptive, and Hybrid

Project management processes

Project Management Processes: Are the executed or the will be executed activities. The processes are logically connected and linked. Usually the process produces one or more outputs, and the output could be deliverable or input to other process.

- A process is a set of interrelated actions and activities performed to achieve a pre-specified product, result, or service
- Each process is characterized by its inputs, the tools and techniques that can be applied, and the resulting outputs
- In order for a project to be successful, the project team must:
    - Select appropriate processes required to meet the project objectives;
    - Use a defined approach that can be adopted to meet requirements;
    - Comply with requirements to meet stakeholder needs and expectations;
    - Establish and maintain appropriate communication & engagement with stakeholders;
    - Balance the competing constraints.

- The project processes are performed by the project team and generally fall into one of three major categories:
    - Processes used once or at predefined points in the project (ex: project charter)
    - Processes that are performed periodically as needed (ex: Acquire resources)
    - Processes that are performed continuously (ex: Define activities)

Common Project Management Processes Interactions:

- Monitoring & Controlling Process Group interacts with the other Process Groups
- Project Management Process Groups are linked by the outputs that are produced
- The Process groups are overlapping activities that occur throughout the project
- The output of one process generally becomes an input to another process or is a deliverable of the project, subproject or phase
- Deliverables of subproject or project level may be called incremental deliverables
- The Planning Process Group provides the Executing Process Group with project management plan and project documents
- Project management plan and project documents always revisited and updated
- If the project is divided into phases, the process groups interact with each phase
- The Process Groups are not Project Life Cycle Phases

Project Management Process Groups

Project management is accomplished through the appropriate application and integration of the 49 logically grouped project management processes comprising the five Process Groups:

- Initiating,
- Planning,
- Executing,
- Monitoring and Controlling, and
- Closing.

Initiating Process Group

- Defines and authorizes the project.
- Are often done external to the project's scope of control.
- Facilitate formal authorization to start a new project.
- Project manager assigned
- Funding and approval happens external to project boundaries
- Many large or complex projects are divided into phases, and repeating it for each subsequent phases.

Planning Process Group

- Defines and refines the objectives, and plan the course of action required to attain the objective and scope that the project was undertaken to address.
- Develops project management plan and refines project scope, project cost and schedule.
- It is updated and refined throughout execution process group by rolling wave planning.
- All necessary stakeholders are involved in this process.

Execution Process Group

- Majority of the project budget will be spent in performing Executing Process Group.
- Integrates people and other resources to carry out the project management plan.
- During the project execution, results may require planning updates and re-baselining

Monitoring & Controlling Process Group

- The main benefit of M&E Process Groups is that the project performance is measured and analyzed at regular intervals.
- Monitoring the ongoing project activities against the project management plan and the project performance measurement baseline
- Influencing the factors that could circumvent change control or configuration management so only approved changes are implemented.
- Controlling changes and recommending corrective or preventing action in anticipation of possible problems.
- M&E Process Group not only monitors and controls the work being done within a Process Group, but also monitors and controls the entire project effort.

Closing Process Group

- Formalizes acceptance of the project or phase deliverable.
- Obtain acceptance by the customer or sponsor to formally close the project or the phase
- Conduct post-project or phase-end review
- Record impacts of tailoring to any process
- Document lessons learned
- Apply appropriate updates to organizational process assets.
- Achieve all relevant project documents in the PMIS to be used as historical data
- Close out all procurement activities
- Perform team members' assessments
- Release project resources

Project Management Knowledge Areas

Project processes categorized by KNOWLEDGE AREAS. The *PMBOK® GUIDE* lists, describes and explains 10 knowledge areas.

The 10 knowledge areas are:

1. Project Integration Management
2. Project Scope Management
3. Project Schedule Management
4. Project Cost Management
5. Project Quality Management
6. Project Resource Management
7. Project Communication Management
8. Project Risk Management
9. Project Procurement Management
10. Project Stakeholders Management

Moreover, each knowledge area contains more than one process to make the 49 processes as shown in the table below.

***Don't get confuse between the **five Process Groups** and the 49 processes.*

*The five process groups vertically contains the 49 processes for example the **Initiating Process Group** includes two processes the first is **Develop Project Charter** and the second is **Identify Stadtholders.***

The knowledge areas simply direct you how to use the 49 processes. Therefore, the 49 processes are the connecter between the 5 Process Groups and the 10 knowledge areas.

10 Knowledge Areas	Five Process Groups				
	Initiating Process Group	Planning Process Group	Executing Process Group	Monitoring & Controlling Process Group	Closing Process Group
Project Integration Management	1. Develop Project Charter	2. Develop Project Management Plan	3. Direct & Manage Project Work 4. Manage Project Knowledge	5. Monitor & Control Project Work 6. Perform Integrated Change Control	7. Close Project or Phase
Project Scope Management		1. Plan Scope Management 2. Collect Requirements 3. Define Scope 4. Create WBS		5. Validate Scope 6. Control Scope	
Project Schedule Management		1. Plan Schedule Management 2. Define Activities 3. Sequence activities 4. Estimate Activities Duration 5. Develop Schedule		6. Control Schedule	
Project Cost Management		1. Plan Cost Management 2. Estimate Costs 3. Determine Budget		4. Control Cost	
Project Quality Management		1. Plan quality Management	2. Manage Quality	3. Control Quality	
Project Resource Management		1. Plan Resource Management 2. Estimate Activity Resources	3. Acquire Resources 4. Develop Team 5. Manage Team	6. Control Resources	

Project Communication Management		1. Plan Communication Management	2. Manage Communication Management	3. Monitor Communication Management	
Project Risk Management		1. Plan Risk Management 2. Identify Risks 3. Perform Qualitative Risk Analysis 4. Perform Quantitative Risk Analysis 5. Plan Risk Responses	6. Implement Risk Responses	7. Monitor Risk Responses	
Project Procurement Management		1. Plan Procurement Management	2. Conduct Procurement	3. Control Procurement	
Project Stakeholders Management	1. Identify Stadtholders	2. Plan Stakeholders Engagement	3. Manage Stakeholders Engagement	4. Monitor Stakeholders Engagement	

Tools and Techniques

Each one of the 49 processes has inputs and outputs and we use tools and techniques over our inputs to the outputs. Usually the output from one process is an input for another process

The tools and techniques at *PMBOK® GUIDE* grouped under these categories:

- Data gathering
- Data analysis
- Communication skills
- Decision making
- Interpersonal and team skills

Each category has a lot of tools and techniques that will be handled in different document

Project Information

The project data are continuously collected and analyzed during the dynamic context of the project execution. The project team should use appropriate terminologies. Such as:

- Work performance data: the row observations and measurements identified during activities performed to carry out the project work. (Ex: reported present of work physically completed, quality and technical performance measures, start and finish date of scheduled activities, number of defects, actual cost, actual duration, etc...)
- Work performance information: the performance data collected from various controlling processes, analyzed in context and integrated based on relationships across areas.(ex: status of deliverables, implementation status for change requests, and furcated estimates to complete).
- Work performance reports: the physical or electronic representation of work performance information is compiled in project documents, intended to raise issues or generate decisions (ex: status reports, memos, justifications, information notes, etc…)

Tailoring

There is no single project management methodology can be applied to all projects all the time. The *PMBOK® GUIDE* is not a methodology. The *PMBOK® GUIDE* and the standard for project management are recommended references for tailoring.

Tailoring is very important as every project is unique. Not every process, tool or technique required or applicable for every project.

Project Management Business Documents

Two documents are interdependent and iteratively developed and maintained through the project life cycle:

1. **Project business cases**: created prior the initiation of the project and serves as basis for the authorization of further project management activities. It is usually the sponsors' responsibility to create this document.
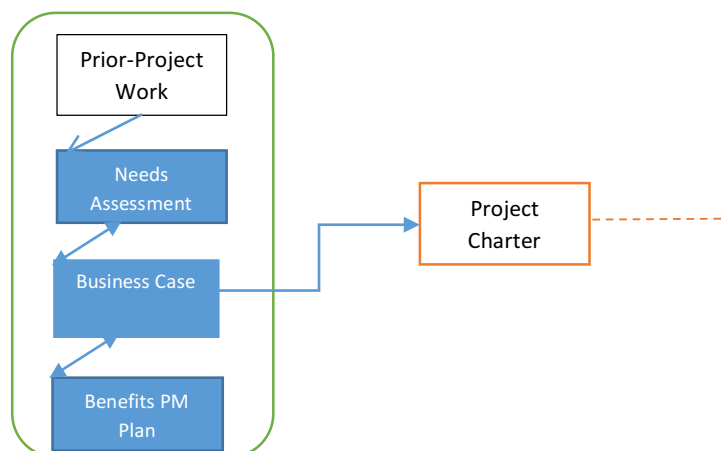
The project business case may include but not limited to:

Business Needs

Analysis of the situation

Evaluations

Recomendations

2. **Project benefits management plan:** defining the process of creating, maximizing, and sustaining the benefits provided by a project.
   The project benefits management plan may include but not limited to:

Target benefits

Startegic allignment

Timeframe

Benefits owner

Metrics

Assumptions

Risks

Project Success Measures

Measurable and clearly project objectives should be documented, and should answer the three questions:

- What does success looks like?
- How will success be measured?
- What factors may impact success?

The project may meet the scope, schedule, and budget but still not successful from the business viewpoint

Business Values:

- Business value is defined as the entire value of the business, the total sum of all tangible and intangible elements.
- Business value is a concept that is unique to each organization.
- All organizations focus on attaining business value for their activities.
- Successful business value realization begins with comprehensive strategic planning and management.

Section 2, The Environment in Which Projects Operates

Enterprise Environmental Factors (EEFs)

Are conditions that not under the control of the project management team. The EEF could be internal or external to the organization (are inputs to most planning processes)

Internal EEF such as:
- Organization culture, structure
- Resources physical distribution
- Infrastructure
- Resources availability
- Employee performance and capability
- The organizational culture is considered as an enterprise environmental factors

External EEF such as:
- Marketplace conditions
- Social and culture influence
- Legal restrictions
- Commercial
- Government standards

Organizational Process Assets (OPAs)

Organizational process assets are the plans, processes, polices, procedures, and knowledge bases. (are inputs to most planning processes)

Organizational process assets are grouped in two categories:

- Processes, policies, and procedures;
    - Initiating and planning
    - Executing, monitoring and controlling
    - Closing
- Organizational knowledge bases;
    - Configuration management knowledge bases
    - Financial databases
    - Historical information and lessons learned
    - Issue and defect management databases
    - Data repositories
    - Project files from previous projects

Organizational Systems

Projects operate within constraints imposed by the organization through their structure and governance framework. The project managers need to understand where responsibilities, accountability and authority reside within organization as this understanding will help them to effectively use their power, influence, competence, and leadership. The organizational system includes so many factors, the most important are:

- Management elements
- Governance frameworks
- Organizational structure types

Organizations Governance framework

Governance refers to the organizational or structure arrangements at all levels of an organization designed to determine and influence the behavior of the organization's members.

There is no one governance framework that fits or may be applied/ adapt by all organizations. Thus tailoring becomes essential.

- Organizational governance criteria can impose constraints on projects especially if the project delivers a service, which will be subject to strict organizational governance.
- It is so important for project manager to be knowledgeable about corporate organizational governance policies and procedures.
- Organizations use governance to establish strategic directions and performance parameters.
- Project management activities should be aligned with top-level business directions, and if there is a change, the project objectives need to be re-aligned.
- Project governance is an oversight function that is aligned with the organization governance model, and encompasses the project life cycle.
- Project governance framework provides the project manager and team with structure, processes, decision-making model and tools for managing the project.
- The Project governance is a critical element of any project that ensures its success by defining, documenting and communicating reliable and, repeatable project practices.
- Project governance involves stakeholders as well as documented policies, procedures, and standards; responsibilities; and authorities.
- The project governance approach should be described in the project management plan.

Governance framework

Framework within the authority is exercised in organization, includes but not limited to:

- Rules, Policies, procedures Norms, relationships, systems, processes
- And the framework influences how:
  - Objectives of organization are set and achieved
  - Risk is monitored and assessed
  - Performance is optimized

Governance of Portfolios, Programs, and Projects

Refers to the framework that guide the project/portfolio/programs activities in order to create unique, service, result, product to meet organizational strategic and operational goals.

Management Elements

Management elements are components that comprise the key functions or general management principles of the organization. Management elements include:

- Division of work using specialized skills and availability to perform work
- Authority to perform work
- Responsibility to perform work
- Discipline of action
- Unity of command
- Unity of direction
- General goals of the organization
- Paid fairly for work performed
- Clear communication channel
- Right materials to the right person for the right job at the right time
- Fair and equal treatments of people in the workplace
- Clear security of work positions
- Open contribution to planning and execution by tech person
- Optimal morale

Organizational structure types

- Organic or simple
- Functional (centralized)
- Multidivisional with replication for each division with little centralization
- Matrix (strong)
- Matrix (weak)
- Matrix (balanced)
- Project-oriented (composite, hybrid)
- Virtual
- Hybrid
- PMO(portfolio, program, or project management office or organization)

Factors in Organization Structure Selection

Factors to consider in selecting an organization structure include but not limited to"

- Degree of alignment with organization objectives
- Specialization capabilities
- Span control efficiency and effectiveness
- Clear line and scope of authority
- Delegation capability
- Physical location

Project Management Office (PMO)

- Management structure standardizes the project related governance
- Facilitates the sharing of resources, methodologies, tools, and techniques
- The primary role of the PMO is to support the project managers
- Three types of PMOs: Supportive, controlling and Directive

The PMO may:

- Make recommendations
- Lead knowledge transfer
- Terminate projects
- Take actions as required

PMO supports project managers by:

- Managing shared resources
- Identifying and developing p project management mythology, best practices, standards...
- Coaching, mentoring, training
- Coordinating the communication across the project

Section 3, Role of Project Manager

The project manager role may vary from one organization to organization. The project managers become involved in a project from initiation to closing. In some situations, the project managers may be involved in the activities prior the project initiation. The difference between project managers and operations or functional managers:

Project manager: is assigned to lead the team that is responsible for achieving the project objectives.

Operations manager: are responsible for ensuring that business operations are efficient

Functional manager: is a person who has management authority over an organizational unit—such as a department—within a business, company, or other organization

The Project Manager

- Apply project management methodology to do his\her work
- Is the person assigned to lead the team that is responsible for achieving the project objectives?
- The only point of contact for the project.
- PM responsibilities includes:
  - Planning the work
  - Organizing the work
  - Managing the day-day activities
  - Delivering the project deliverables to the client
  - Identifying potential stakeholders
  - Balancing the competing demands

The project manager should possess the following skills:

- Knowledge: what the PM knows about project management
- Performance: What PM is able to accomplish
- Personal: How does the PM behave, his/her personality, leadership skills…
- Effective PM requires a balance of ethical, interpersonal, and conceptual skills.

Important Interpersonal skills:

- Leadership
- Team building
- Motivation
- Communication
- Influencing
- Decision Making
- Political and culture awareness
- Negotiation
- Trust building
- Conflict Management
- Coaching & mentoring

Project Team

- The project team includes the project manager and the group of individuals who act together in performing work of the project to achieve its objectives
- The project team includes the project manager, the project management staff, and other team members who carry out the work, but who are necessarily involved with management of the project.
- Project team includes roles such as:
    o Project management staff
    o Project staff
    o Supporting experts
    o User or customer representatives
    o Sellers
    o Business partner members
    o Business partners

Stakeholders

Individuals and organizations who are actively involved in the project

- Often have conflicting expectations and objectives
- In general, differences should be resolved in favor of the customer –individual(s) or organization(s) that will use the outcome of the project
- Stakeholder management is a proactive task
- Project Managers must determine all stakeholders and incorporate their needs into the project

Stakeholders are:

- Project Managers
- Customers
- Performing organizations, owners
- Sponsor
- Team
- Internal/external
- End user
- Society, citizens
- Others: owner, funders, supplier, contractor

Project Manager Competencies

The PMI Talent Triangle focuses on the three skills sets needed by project managers:

- Technical project management; the skills to effectively and efficiently apply project manage knowledge to deliver desired outcomes. PM should demonstrate but not limited to:
    - Focus on critical project management elements
    - Tailor both traditional and agile tools, techniques and methods
    - Plan and prioritize diligently
    - Managing project elements; cost , risk, resources, and schedule

- Strategic and Business Management; the ability to see the high-level overview of the organization, implement and negotiate decisions and actions that supports strategic alignment and innovation. Includes but limited to:
    - Explain essential business aspects of a project
    - Work with other sponsor, team, and subject matters to develop appropriate project delivery strategy
    - Maximize the business value of the project by implementing the right strategy in a right way
    - Consider the expertise of the operational managers
    - The more the PM knows about the project's subject matter, the better
    - The PM should be able to explain the organization's strategy, mission, goals and objectives, products, services, operations, the market conditions, and competitions.
    - Ensure the project alignment with the organization by applying the following knowledge and information: Strategy, mission, goals and objectives, priority, tactics, products and services.

- Leadership Skills: the ability to guide, motivate, and direct a team.

    Qualities and skills of a leader:

    - Being a visionary
    - Being optimistic and positive
    - Being collaborative
    - Managing relationships and conflict
    - Communication
    - Being respectful, courteous, friendly, kind, honest, trustworthy, loyal, and ethical
    - Exhibiting integrity and being culturally sensitive, courteous, a problem solver and decisive
    - Focusing in important things
    - Having a holistic and systemic view of the project
    - Being able to apply critical thinking
    - Being able to build effective teams, be service-oriented

Politics and Power; the numerous forms of power including:

- Positional, Informational, Referent, Situational, Personal and charismatic, Relational, Expert, Reward-oriented, Punitive or coercive, Integrating, Guilt-based, Persuasive, Avoiding

Leadership and Management

"Management is about arranging and telling. Leadership is about nurturing and enhancing. "Tom Peters

"Management is efficiency in climbing the ladder of success; leadership determines whether the ladder is leaning against the right wall. "Stephen Covey

Leadership styles

Common examples of leadership styles:

- Laissez-faire
- Transactional
- Servant leader
- Transformational
- Charismatic
- Interactional

These styles may be a result of combination factors associated with the project, as:

- Leader characteristics
- Team member characteristics
- Organizational characteristics
- Environmental characteristics

Performing Integration by:

The project manager perform integration role in the project by:

- Working with project sponsor to understand the strategic objectives and ensure the alignment of the project objectives with those of the portfolio, program, and business areas
- Responsible for convincing everyone on the team to work in the same direction
- Understanding how to integrate the various project processes and where to interact. (Integration at process level)
- Being able to integrate and apply experience, insight, leadership, and technical and business management skills to the project. (Integration at cognitive level)
- Understanding how to and applying the integration on the context level as including new technology, social work , virtual team, and new values (Integration at Context level)

Integration and complexity

Complexity in project is the result of the Organization's System behavior, human behavior, and uncertainty within the organization (Ambiguity)

Sections 4 – 13, Knowledge Areas

You will find the summary of each knowledge area, a description and explanation of its inputs, outputs and techniques (ITTOs). It is highly recommended you understand the relationships between the Knowledge areas and their ITTOs instead of trying to memorize them. Memorizing may help you in the CAPM exam as most of the questions are direct and to the point, while the PMP exam and the real life are more complicated and a lot of questions / cases depend on the logical thinking and understanding rather than memorizing.

Again, this is not a replacement of the *PMBOK® GUIDE* or any PMP/CAPM exam preparation books. It is a summary that will help you to go over the most important things and serve as a direct reference.

	1. Project Integration Management		
Process Name	**Inputs**	**Outputs**	**Tools & Techniques**
Develop Project Charter	1. Business Documents 2. Agreements 3. Enterprise Environmental Factors 4. Organizational Process Assets	1. Project Charter 2. Assumption log	1. Experts Judgment 2. Data gathering 3. Interpersonal and team skills 4. Meetings
Develop Project Management Plan	1. Project Charter 2. Outputs From other Processes 3. Enterprise Environmental Factors 4. Organizational Process Assets	1. Project Management Plan	1. Experts Judgment 2. Data gathering 3. Interpersonal and team skills 4. Meetings
Direct and Manage Project Work	1. Project Management Plan 2. Project documents 3. Approved Change Requests 4. Enterprise Environmental Factors 5. Organizational Process Assets	1. Deliverables 2. Work Performance data 3. Issue log 4. Change requests 5. Project management plan updates 6. Project documents updates 7. Organizational process assets updates	1. Experts Judgment 2. Project management information system(PMIS) 3. Meetings
Manage Project Knowledge	1. Project Management Plan 2. Project documents 3. Deliverables 4. Enterprise Environmental Factors 5. Organizational Process Assets	1. Lesson learned 2. Project management plan updates 3. Organizational process assets updates	1. Experts Judgment 2. Knowledge management 3. Information management 4. Interpersonal and team skills
Monitor and Control Project Work	1. Project Management Plan 2. Project documents 3. Work performance information 4. Agreements 5. Enterprise Environmental Factors 6. Organizational Process Assets	1. Change Requests 2. Work performance reports 3. Project management plan updates 4. Project documents updates	1. Experts Judgment 2. Data analysis 3. Decision making 4. Meeting
Perform Integrated Change Request	1. Project Management Plan 2. Project documents 3. Work Performance reports 4. Change Requests 5. Enterprise Environmental Factors 6. Organizational Process Assets	1. Approved change requests 2. Project management plan updates 3. Project documents updates	1. Experts Judgment 2. Meetings 3. Change Control tools 4. Data analysis 5. Decision making

Close Project or Phase	1. Project charter 2. Project management plan 3. Project documents 4. Accepted deliverables 5. Business documents 6. Agreements 7. Procurement documentation 8. Organizational process assets	1. Project documents updates 2. Final product, service, or result transition 3. Final report 4. Organizational Process	1. Experts Judgment 2. Data analysis 3. Meetings

Project Integration Management

Unification, consolidation, articulation and interactive actions those are crucial to project completion. Integration is about making choices, about where to concentrate resources and efforts. It also involves making tradeoffs among competing objectives and alternatives.

Integration is primarily concerned with effectively integrating the processes among the Project Management Process Groups.

- **Develop Project Charter**
    - o Authorizes Project Manager
    - o Created based on a business need, a customer request, or a market demand
    - o Signed by the performing organization's senior management.
    - o Officially confirms the start of the project
    - o Includes high-level project requirements, acceptance criteria, project objectives, product requirements, and key milestone dates.

- **Develop Project Management Plan**
    - o A formal, approved document that defines how the project is managed, executed, and controlled. It may be summary or detailed and may be composed of one or more subsidiary management plans and other planning documents
    - o The plan guides your work on the project
    - o It is iterative and progressively elaborated
    - o *PMBOK® GUIDE* does not offer Project Management Methodology

- **Direct and Manage Project Work**
    - o The process of leading and performing the work defined in the project management plan, and implementing approved changes to achieve the project's objectives.

- **Manage project knowledge**
    - The process of using existing knowledge and creating new knowledge to achieve the projects' objectives and contributes to organizational learning

- **Monitor and Control Project Work**
    - The process of tracking, reviewing, and reporting project progress against the performance objectives defined in the project management plan

- **Perform Integrated Change Control**
    - The process of reviewing, approving, and managing changes across the project

- **Close Project / Phase**
    - The process of finalizing all activities to close the project/phase
    - Main risk here is resources tend to leave even before closing the project properly.
    - Evaluating project success/failure, formal acceptance, project records, lessons learned

2. Project Scope Management			
Process Name	**Inputs**	**Outputs**	**Tools & Techniques**
Plan Scope Management	1. Project charter 2. Project management plan 3. Enterprise Environmental Factors 4. Organizational Process Assets	1. Scope management plan 2. Requirements management plan	1. Experts Judgment 2. Data analysis 3. Meetings
Collect Requirements	1. Project charter 2. Project management plan 3. Project documents 4. Business documents 5. Agreements 6. Enterprise environmental factors 7. Organizational process assets	1. Requirements documentation 2. Requirements traceability matrix	1. Experts judgement 2. Data gathering 3. Data analysis 4. Decision making 5. Data representation 6. Interpersonal and team skills 7. Context diagram 8. Prototypes
Define Scope	1. Project charter 2. Scope management plan 3. Project documents 4. Enterprise environmental factors 5. Organizational Process Assets	1. Project scope statement 2. Project documents updates	1. Experts Judgment 2. Data analysis 3. Decision making 4. Interpersonal and team skills 5. Product analysis
Create WBS	1. Project management plan 2. Project documents 3. Enterprise Environmental Factors 4. Organizational Process Assets	1. Scope baseline 2. Project documents updates	1. Experts Judgment 2. Decomposition
Validate Scope	1. Project management plan 2. Requirements documentation 3. Verified deliverables 4. Work performance data	1. Accepted deliverables 2. Work performance information 3. Change requests 4. Project documents updates	1. Inspection 2. Decision-making
Control Scope	1. Project management plan 2. Project documents 3. Work performance data 4. Organizational process assets	1. Work performance information 2. Change requests 3. Project management plan updates 4. Project documents updates	1. Data analysis

Project Scope Management

Includes the processes required to ensure that the project includes all the work required, and **only the work required**, to complete the project successfully.

- **Plan Scope Management**
  - The process of creating a scope management plan the documents how the project scope will be defined, validated, and controlled
- **Collect Requirements**
  - The process of determining, defining and documenting stakeholders' needs to meet the project objectives
- **Define Scope**
  - The process of developing a detailed description of the project and product
- **Create WBS**
  - The process of subdividing project deliverables and project work into smaller and more manageable components.
- **Validate Scope**
  - The process of formalizing acceptance of the completed project deliverables.
- **Control Scope**
  - The process of monitoring the status of the project and product scope and managing changes to the scope baseline

The term scope can refer to:

- **Product scope**: The features and functions that characterize a product, service, or result. The completion of product scope is measured against the product requirements

- **Project scope**: The work performed to deliver a product, service, or result with the specified features and functions. The project scope is measured against the project management plan and it is usually includes the product scope.

3. Project Schedule Management				
Process Name	**Inputs**	**Outputs**	**Tools & Techniques**
Plan Schedule Management	1. Project charter 2. Project management plan 3. Enterprise Environmental Factors 4. Organizational Process Assets	1. Schedule management plan	1. Experts Judgment 2. Data analysis 3. Meetings
Define Activities	1. Project management plan 2. Enterprise Environmental Factors 3. Organizational Process Assets	2. Activity list 3. Activity attributes 4. Milestone list 5. Change requests 6. Project management plan updates	1. Experts Judgment 2. Decomposition 3. Rolling wave planning 4. Meetings
Sequence Activities	1. Project management plan 2. Project documents 3. Enterprise Environmental Factors 4. Organizational Process Assets	1. Project schedule network diagram 2. Project documents updates	1. Precedence diagramming method(PDM) 2. Dependency determination 3. Leads and lags 4. PMIS
Estimate Activity Duration	1. Project management plan 2. Project documents 3. Enterprise Environmental Factors 4. Organizational Process Assets	1. Duration estimates 2. Basis of estimates 3. Project documents updates	1. Experts Judgment 2. Analogous estimating 3. Parametric estimating 4. Three-point estimating 5. Bottom up estimating 6. Data analysis 7. Decision making 8. Meetings

Develop Schedule	1. Project management plan 2. Project documents 3. Agreements 4. Organizational assets	1. Schedule baseline 2. Project schedule 3. Schedule data 4. Project calendars 5. Project management plan updates 6. Project documents updates 7. Change requests 8. Project management plan updates	1. Schedule network analysis 2. Critical path method 3. Critical chain method 4. Resource optimization techniques 5. Data analysis 6. Leads and lags 7. PMIS 8. Agile release planning
Control Schedule	• Project management plan • Project documents • Work performance data • Organizational Process Assets	1. Work performance information 2. Schedule forecasts 3. Change requests 4. Project management plan updates 5. Project documents updates	1. Data analysis 2. Critical path method 3. PMIS 4. Resource optimization 5. Leads and lags 6. Schedule compression

Project Schedule Management

Project Schedule Management includes the processes required to manage timely completion of the project.

The project schedule management processes and their associated tools and techniques are documented in the schedule management plan. The schedule management plan is contained in, or is a subsidiary plan of, the project management plan.

- **Plan Schedule Management**
    - o The process of establishing the policies, procedures, and documentation for planning, developing, managing, executing, and controlling the project schedule
- **Define Activities**
    - o The process of identifying the specific actions to be performed to produce the project deliverables
- **Sequence Activities**
    - o The process of identifying and documenting relationships among the project activities

- **Estimate Activity Durations**
  - The process of approximating the number of work periods needed to complete individual activities with estimated resources.
- **Develop Schedule**
  - The process of analyzing activity sequences, durations, resource requirements, and schedule constraints to create the project schedule model.
- **Control Schedule**
  - The process of monitoring the status of the project to update project progress and managing changes to the schedule baseline.

4. Project Cost Management			
Process Name	**Inputs**	**Outputs**	**Tools & Techniques**
Plan Cost Management	1. Project management plan 2. Project charter 3. Enterprise Environmental Factors 4. Organizational Process Assets	Cost management plan	1. Experts Judgment 2. Data analysis 3. Meetings
Estimate Costs	1. Project management plan 2. Project documents 3. Enterprise Environmental Factors 4. Organizational Process Assets	1. Cost estimates 2. Basis of estimates 3. Project documents updates	1. Experts Judgment 2. Analogous estimating 3. Parametric estimating 4. Bottom-up estimating 5. Three-point estimating 6. Data analysis 7. PMIS 8. Decision making
Determine Budget	1. Project management plan 2. Project documents 3. Business documents 4. Agreements 5. Organizational Process Assets 6. Enterprise Environmental Factors	1. Cost baseline 2. Project funding requirements 3. Project documents updates	1. Cost aggregation 2. Data analysis 3. Expert judgment 4. Historical relationships 5. Funding limit reconciliation 6. Financing
Control Costs	1. Project management plan 2. Project documents 3. Project funding requirements 4. Work performance data 5. Organizational Process Assets	1. Work performance information 2. Cost forecasts 3. Change requests 4. Project management plan updates 5. Project documents updates	1. Experts judgement 2. Data analysis 3. To-complete performance index(TCPI) 4. PMIS

Project Cost Management

Include the processes Involved in planning, estimating, budgeting, funding, managing, and controlling costs so that the project can be completed within the approved budget.

- **Plan Cost Management**
  - The process that establishes the policies, procedures, and documentation for planning, managing, expending, and controlling project costs
- **Estimate Costs**
  - The process of developing an approximation of the monetary resources needed to complete project activities
- **Determine Budget**
  - The process of aggregating the estimated costs of individual activities or work packages to establish an authorized cost baseline.
- **Control Costs**
  - The process of monitoring the status of the project to update the project budget and managing changes to the cost baseline.

5. Project Quality Management			
Process Name	**Inputs**	**Outputs**	**Tools & Techniques**
Plan Quality Management	1. Project charter 2. Project management plan 3. Project documents 4. Enterprise environmental factors 5. Organizational Process Assets	1. Quality management plan 2. Quality metrics 3. Project management plan updates 4. Project documents updates	1. Expert judgement 2. Data gathering 3. Data analysis 4. Decision making 5. Data representation 6. Test and inspection planning 7. Meetings
Manage Quality	1. Project management plan 2. Project documents 3. Organizational Process Assets	1. Quality report 2. Test and evaluation document 3. Change requests 4. Project management plan updates 5. Project documents updates	1. Data gathering 2. Data analysis 3. Decision making 4. Data representation 5. Audits 6. Design for x 7. Problem solving 8. Quality improvements method
Control Quality	1. Project management plan 2. Work performance data 3. Approved change requests 4. Deliverables 5. Project documents 6. Organizational Process Assets 7. Enterprise environmental factors	1. Quality control measurements 2. Validated deliverables 3. Work performance information 4. Change requests 5. Project management plan updates 6. Project documents updates	1. Data gathering 2. Data analysis 3. Inspection 4. Test/product evaluations 5. Data representation 6. Meetings

Project Quality Management

Includes the processes and activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken. It implements the quality management system through policy and procedures with continuous process improvement activities conducted throughout, as appropriate.

- **Plan Quality Management**
  - The process of identifying quality requirements and/or standards for the project and product, and documenting how the project will demonstrate compliance with quality requirements
- **Manage Quality**
  - The process of auditing the quality requirements and the results from quality control measurements to ensure appropriate quality standards and operational definitions are used.
- **Quality Control(QC)**
  - The process of monitoring and recording results of executing the quality activities to assess performance and recommend necessary changes.

6. Project Resource Management			
Process Name	**Inputs**	**Outputs**	**Tools & Techniques**
Plan Resource Management	1. Project charter 2. Project management plan 3. Project documents 4. Enterprise environmental factors 5. Organizational process assets	1. Resource management plan 2. Team charter 3. Project documents updates	1. Organizational theory 2. Expert judgment 3. Data representation 4. Meetings
Estimate Activity Resources	1. Project management plan 2. Project documents 3. Enterprise environmental factors 4. Organizational process assets	1. Resource requirements 2. Basis of estimates 3. Resources breakdown structure 4. Project documents updates	1. Expert judgement 2. Bottom up-estimating 3. Analog estimating 4. Parametric estimating 5. Data analysis 6. PMIS 7. Meetings
Acquire Resources	1. Project management plan 2. Project documents 3. Enterprise environmental factors 4. Organizational process assets	1. Physical resource assignments 2. Project team assignments 3. Resource calendars 4. Change requests 5. Project management plan updates 6. Project documents updates 7. Enterprise environmental factors 8. Organizational process assets	1. Decision making 2. Interpersonal and team skills 3. Pre- assignments 4. Virtual teams
Develop Team	1. Project management plan 2. Project documents 3. Enterprise environmental factors 4. Organizational process assets	1. Team performance assessments 2. Change requests 3. Project management plan updates 4. Project documents updates 5. Enterprise environmental factors updates 6. Organizational process assets updates	1. Colocation 2. Virtual team 3. Communication technology 4. Interpersonal and team skills 5. Recognition and rewards 6. Training 7. Individual and team assessment 8. Meetings

Manage Team	1. Project management plan 2. Project documents 3. Team performance assessments 4. Work performance reports 5. Organizational process assets 6. Enterprise environmental factors updates	1. Change requests 2. Project management plan updates 3. Project documents updates 4. Enterprise environmental factors updates	1. Interpersonal and team skills 2. PMIS
Control Resources	1. Project management plan 2. Project documents 3. Work performance data Agreements 4. Organizational process assets	1. Work performance information 2. Change requests 3. Project management plan updates 4. Project documents updates	1. Data analysis 2. Problem solving 3. Interpersonal and team skills 4. PMIS

Project Resource Management

Resource management includes the processes that organize, manage, and lead the project team as well as all kind of resources.

"The **project management team**, is a subset of the project team, and is responsible for the project management and leadership activities such as initiating, planning, executing, monitoring, controlling, and closing the various project phases. This group can also be referred to as the core, executive, or leadership team."

- **Plan Resource Management**
  - The process of identifying and documenting project roles, responsibilities, and required skills, reporting relationships, and creating a staffing management plan
- **Estimate activity resources**
  - The process of identifying the estimating team resources, the type, quantity, characteristics of all type of resources (personal, materials, equipment...) required to complete the project.
- **Acquire Resources**
  - The process of confirming and obtaining the human resource, facilities, equipment, materials, supplies, and other resources availability necessary to complete project work.
- **Develop Team**
  - The process of improving the competencies, team member interaction, and the overall team environment to enhance project performance.

- **Manage Team**
    - The process of tracking team member performance, providing feedback, resolving issues, and managing changes to optimize project performance
- **Control resources**
    - The process of ensuring that the physical resources are assigned, allocated to the project and available as planned. As well as keeping these resources under control by tracking, monitoring, and taking corrective actions.

7. Project Communications Management			
Process Name	**Inputs**	**Outputs**	**Tools & Techniques**
Plan Communications Management	1. Project charter 2. Project management plan 3. Project documents 4. Enterprise environmental factors 5. Organizational process assets	1. Communications management plan 2. Project management plan updates 3. Project documents updates	1. Experts judgement 2. Communication requirements analysis 3. Communication technology 4. Communication models 5. Communication Methods 6. Interpersonal; and team skills 7. Data representation 8. Meetings
Manage Communications	1. Project management plan 2. Project documents 3. Work performance reports 4. Enterprise environmental factors 5. Organizational process assets	1. Project communications 2. Project management plan updates 3. Project documents updates 4. Organizational process assets updates	1. Communication technology 2. Communication methods 3. Communications skills 4. PMIS 5. Project reporting 6. Interpersonal and team skills 7. Meetings
Monitor Communications	1. Project management plan 2. Project documents 3. Work performance data 4. Enterprise environmental factors 5. Organizational process assets	1. Work performance information 2. Change requests 3. Project management plan updates 4. Project documents updates	1. Expert judgment 2. PMIS 3. Meeting 4. Data representations 5. Interpersonal and team skills

Project Communications Management

Includes the processes required to ensure timely and appropriate planning, collection, distribution, storage, retrieval, management, control, monitoring, and ultimate disposition of project information. Project managers spend the <u>majority of their time</u> communicating with team members and other project stakeholders.

- **Plan Communications Management**
    - o The process of developing an appropriate approach and plan for communications based on stakeholder's information needs and requirements, and available organizational assets
- **Manage Communications**
    - o The process of creating, collecting, distributing, storing, retrieving and ultimate disposition of project information in accordance with communications management plan
- **Monitor Communications**
    - o The process of monitoring and controlling communications throughout the entire project life cycle

8. Project Risk Management			
Process Name	**Inputs**	**Outputs**	**Tools & Techniques**
Plan Risk Management	1. Project documents 2. Project management plan 3. Project charter 4. Enterprise environmental factors 5. Organizational process assets	1. Risk management plan	1. Data analysis 2. Expert judgment 3. Meetings
Identify Risks	1. Project management plan 2. Project documents 3. Agreements 4. Procurement documentation 5. Enterprise environmental factors 6. Organizational process assets	1. Risk register 2. Risk report 3. Project documents updates	1. Experts judgement 2. Data gathering 3. Data analysis 4. Interpersonal and team skills 5. Prompt lists 6. Meetings
Perform Qualitative Risk Analysis	1. Project management plan 2. Project documents 3. Enterprise environmental factors 4. Organizational process assets	1. Project documents updates	1. Experts judgement 2. Data gathering 3. Data analysis 4. Interpersonal and team skills 5. Risk categorization 6. Data representation 7. Meetings
Perform Quantitative Risk Analysis	1. Project management plan 2. Project documents 3. Enterprise environmental factors 4. Organizational process assets	1. Project documents updates	1. Experts judgement 2. Data gathering 3. Data analysis 4. Interpersonal and team skills 5. Representation of uncertainty
Plan Risk Responses	1. Project management plan 2. Project documents 3. Enterprise environmental factors 4. Organizational process assets	1. Change requests 2. Project management plan updates 3. Project documents updates	1. Strategies for threats 2. Strategies for opportunity 3. Contingent response strategies 4. Expert judgment 5. Data gathering

			6. Interpersonal and team skills 7. Strategies for overall project 8. Data analysis 9. Decision making
Implement Risk Responses	1. Project management plan 2. Project documents 3. Organizational process assets	1. Change requests 2. Project documents updates	1. Expert judgment 2. interpersonal and team skills 3. PMIS
Monitor Risks	1. Project management plan 2. Project documents 3. Work performance data 4. Work performance reports	1. Work performance information 2. Change requests 3. Project management plan updates 4. Project documents updates 5. Organizational process assets updates	1. Data analysis 2. Audits 3. Meetings

Project Risk Management

The processes of conducting risk management planning, identification, analysis, response planning, and monitoring and control on a project. The objectives of Project Risk Management are to increase the probability and impact of positive events, and decrease the probability and impact of negative events in the project.

"Project risk is always in the future. Risk is an uncertain event or condition that, if it occurs, has an effect on at least one project objective. Objectives can include scope, schedule, cost, and quality."

- **Plan Risk Management**
  - The process of defining how to conduct risk management activities for a project
- **Identify Risks**
  - The process of determining which risks may affect the project and documenting their characteristics
- **Perform Qualitative Risk Analysis**
  - The process of prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact
- **Perform Quantitative Risk Analysis**
  - The process of numerically analyzing the effect of identified risks on overall project objectives.
- **Plan Risk Responses**
  - The process of developing options and actions to enhance opportunities and to reduce threats to project objectives.
- **Implement Risk Responses**
  - The process of implementing what is agreed upon in the risk responses plan.
- **Monitor Risks**
  - The process of monitoring the implementation of the risk response plans, tracking identified risks, monitoring residual risks, identifying new risks, and evaluating risk process effectiveness throughout the project.

9. Project Procurement Management			
Process Name	**Inputs**	**Outputs**	**Tools & Techniques**
Plan Procurement Management	1. Project charter 2. Business documents Project management plan 3. Project documents 4. Enterprise environmental factors 5. Organizational process assets	1. Procurement management plan 2. Procurement strategy 3. Bid documents 4. Procurement statement of work 5. Source selection criteria 6. Make-or-buy decision 7. Independent cost estimate	1. Expert judgment 2. Data gathering 3. Data analysis 4. Source selection analysis 5. Meetings
Conduct Procurements	1. Project management plan 2. Procurement documents 3. Procurement documentation 4. Seller proposals 5. Organizational process assets 6. Enterprise environmental factors	1. Selected seller 2. Agreements 3. Resource calendars 4. Change requests 5. Project management plan updates 6. Project documents updates	1. Bidder conference 2. Expert judgment 3. Advertising 4. Data analysis 5. Interpersonal and team skills
Control Procurements	1. Procurement management plan 2. Project documents 3. Agreements 4. Approved change request 5. Work performance reports 6. Work performance data 7. Organizational process assets 8. Enterprise environmental factors	1. Closed procurement 2. Work performance information 3. Procurement documentation 4. Change requests 5. Project management plan updates	1. Experts judgement 2. Inspections 3. Audits 4. Data analysis 5. Claims administration

Project Procurement Management

Includes the processes necessary to purchase or acquire products, services, or results needed from outside the project team. The organization can be either the buyer or seller of the products, services, or results of a project.

- **Plan Procurement Management**
  - The process of documenting project purchasing decisions, specifying the approach, and identifying potential sellers
- **Conduct Procurements**
  - The process of obtaining seller responses, selecting a seller, and awarding a contract
- **Control Procurements**
  - The process of managing procurement relationships, monitoring contract performance, and making changes and corrections as needed.

10. Project Stakeholder Management			
Process Name	**Inputs**	**Outputs**	**Tools & Techniques**
Identify Stakeholders	1. Project Charter 2. Business documents 3. Project management plan 4. Project documents 5. Agreements 6. Enterprise environmental factors 7. Organizational process assets	1. Stakeholder register 2. Change requests 3. Project management update 4. Project documents updates	1. Stakeholder analysis 2. Expert judgment 3. Meetings 4. Data analysis 5. Data representation 6. Meetings
Plan Stakeholder Engagement	1. Project charter 2. Project documents 3. Project management plan 4. Agreements 5. Enterprise environmental factors 6. Organizational process assets	1. Stakeholder engagement plan	1. Data analysis 2. Data gathering 3. Decision making 4. Expert judgement 5. Data representation 6. Meetings
Manage Stakeholder Engagement	1. Project management plan 2. Project documents 3. Enterprise environmental factors 4. Organizational process assets	1. Change requests 2. Project management plan updates 3. Project documents updates	1. Experts judgement 2. Communication skills 3. Interpersonal and team skills 4. Ground rules 5. Meetings
Monitor Stakeholder Engagement	1. Project management plan 2. Work performance data 3. Project documents 4. Enterprise environmental factors 5. Organizational process assets	1. Work performance information 2. Change requests 3. Project management plan updates 4. Project documents updates	1. Data analysis 2. Decision making 3. Data representation 4. Communication skills 5. Interpersonal and team skills 6. Meetings

Project Stakeholder Management

Includes 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.

- **Identify Stakeholders**
  - The process of identifying all people or organizations could impact or be impacted by a decision, activity, or outcome of the project; and analyzing and documenting relevant information regarding their interests, involvement, influence and impact on project success.

- **Plan Stakeholder Engagement**
  - The process of developing appropriate approaches to effectively engage stakeholders throughout the project life cycle based on their roles, expectations, influence…

- **Manage Stakeholder Engagement**
  - The process of communicating and working with stakeholders to meet their needs/expectations

- **Monitor Stakeholder Engagement**
  - The process of monitoring overall project stakeholder relationships and adjusting strategies and plans for engaging stakeholders

Remember your main source of information is the PMBOK® GUIDE 6ₕ Edition.
Please do not hesitate to contact me anytime if you have any questions, comments, or feedback.

Success is yours,

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