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Preface

Purpose

The goal of this document is to provide you with an understanding of project management, as well as offering tools, techniques and templates that you can use to effectively work on a project and be successful. Outlined in this document are steps that will enable you and your project team to plan and manage a project from conception to conclusion and meet everyone's expectations in the process.

The document starts by providing a basic understanding of project management concepts, then in plain everyday words explains how a project manager and team can effectively define the project, organize the work, create a plan and work the plan to a successful conclusion. As a project manager, you will start to develop the skills necessary to lead and manage successful initiatives.

How to Use This Document

This document can be used as a reference document or self-study guide, or it can be used as part of an instructor-led introductory project management course in conjunction with the *Project Management Skills for Life*® slide deck. If this document is used as part of a training, you will find exercises that can be completed throughout the document and an evaluation form in the Appendix.

Covered in This Document

- ✓ Definitions of a project and project management
- ✓ Explanations of the five Process Groups
- ✓ Descriptions of the project team roles and responsibilities
- ✓ Writing a project charter and scope statement
- ✓ Developing a work breakdown structure
- ✓ Determining the schedule and resources
- ✓ Determining the critical path
- ✓ Building quality into the project
- ✓ Communication from project start to completion
- ✓ Understanding potential project risks
- ✓ Procuring products and services
- ✓ Monitoring, tracking and reporting on the project's progress
- ✓ Closing a project



What Is Project Management?

Project management is an approach that is followed to help ensure that all project work that must be done to create a product, service or result is understood, planned and completed within the constraints of time (the schedule), cost (the budget) and quality.

This includes:

- ✓ Determining strategies to ensure everyone's expectations are met and that all needed people and other resources, such as supplies, equipment and facilities, are identified, planned for and acquired
- ✓ Defining high-quality project standards
- ✓ Identifying potential risks and determining effective ways to manage those risks
- ✓ Procuring products and services according to the organization's procedures
- ✓ Communicating the project's progress to the people and organizations involved on a regular basis

What Is a Project?

We all “do” projects throughout our lives. Many times we do not even realize we are working on a project. While the planning and work performed to complete a project are probably familiar to you, the term *project* as we use it here might be new.

A project:

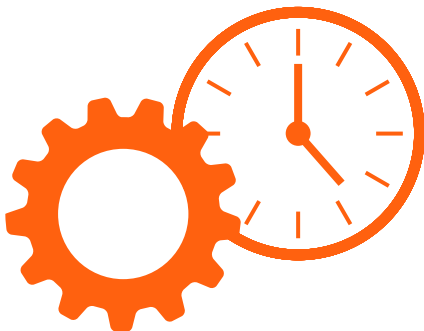
- ✓ is a *temporary* endeavor with a definite beginning and end, *and*
- ✓ creates or produces a *unique* product, service or result

The project outcome is often referred to as the project **deliverable** or final deliverable. A project might require multiple interim deliverables so that the project deliverable or final deliverable can be created or produced.



Here are a few examples of projects you may have completed in the past:

- ✓ Renovating a kitchen
- ✓ Writing a term paper
- ✓ Planning a fundraiser or food drive
- ✓ Planning a party to celebrate a group accomplishment
- ✓ Refinishing a piece of furniture
- ✓ Developing a business plan
- ✓ Planning a vacation



What makes each of these examples a project? Each one has a definite beginning and end date, and produces a unique product, service or result.



Exercise 1

Time to complete: 10 minutes

List a few projects that you have completed, along with their deliverables. You may have undertaken these projects in your personal life, at work or school, in the community, or while volunteering.

PROJECT	DELIVERABLE(S)

Now that you have identified some projects based on your experiences, let us begin to look at the roles and responsibilities of the different people who might be involved with a project. Let us start with the project manager.

What Is a Project Manager?

A **project manager** is the person responsible for ensuring a project achieves its goal(s) and objectives, and is normally assigned by someone within the organization. That someone could be the CEO, the project sponsor or a group of peers. Depending on the project, the project team itself may choose its project manager.

Some projects they might manage are:

- ✓ Constructing a building or bridge
- ✓ Building a space station
- ✓ Installing a new computer system in a small office
- ✓ Connecting hundreds of company offices located across the world into a network
- ✓ Developing an international training program
- ✓ Planning a fundraising event

Although the size and complexity of your projects may be smaller than those mentioned above, you have likely performed or will perform the role of project manager at least once your lifetime. Just like professional project managers, you probably followed a list of “things to do” to complete the project.

A project manager's success depends on their ability to identify requirements, understand and manage expectations, communicate effectively and plan and work within project constraints. Leveraging proven project management tools, techniques and templates can enhance a project manager's ability to define, plan, manage and complete projects successfully.



Professional project managers define, plan and execute a wide variety of projects with different levels of complexity, and work in practically every industry.



What Is a Stakeholder?

Project stakeholders are the people or organizations that are involved or have an interest, either positively or negatively, in the project and project outcome. Project stakeholders may include customers, clients, suppliers, vendors and contributors to daily activities.

All stakeholders are involved to some degree in defining the scope of the project and all need to be kept informed of the project's progress. Some project stakeholders are known as key project stakeholders because they have greater involvement and influence over the project outcome. Regardless of how involved a stakeholder is, it is important to recognize and engage project stakeholders early in the project to ensure that their expectations and requirements are met.

What Is a Project Sponsor?

A **project sponsor** is the person that provides financial and other needed resources for the project; he or she is also responsible for providing management oversight. The project sponsor is there to support the project manager and is responsible for signing off on the project's outcome. This individual is a stakeholder and can be internal or external to the organization.

This person may provide resources such as funding and equipment, but may have limited or no daily involvement in the project. Other times, the project sponsor may take an active role, offering to help develop a budget, find team members and other resources or assist with establishing the project plan. Regardless of how active or inactive the project sponsor is on a daily basis, project sponsors want to make sure there is sufficient funding and the right resources are available to ensure project success. A project's success is their success.



Examples of a project sponsor are:

- ✓ Member of the management team
- ✓ Member of a board of directors or association member
- ✓ Parent or relative
- ✓ Client or customer

What Is a Team Member?

Project **team members** are the people that work on a project and contribute to its success. The project manager and project sponsor define the team member roles and responsibilities. They may be employed by the organization responsible for the project or they could be a third-party expert, vendor, supplier, contractor or volunteer.

The project manager and project sponsor find it helpful if team members speak about their skills and qualifications. This enables them to determine and select the best individual to complete each task and fulfill the project requirements. Typically, one team member is assigned to a specific task, but tasks that are more complex may require more team members and additional resources.

When the project manager assigns tasks, they thoroughly discuss the assignment with each individual team member, making sure that the team member is clear as to the work that needs to be completed so that any frustration or duplication of effort is eliminated. The team member may need mentoring and training, and needs to feel comfortable asking for help when needed.



All team members are responsible for reporting their team and project progress as well as the status of their assigned tasks to the project manager. Some team members will be required to attend all regularly scheduled meetings to discuss project status. Other team members, such as a third-party experts, vendors, suppliers, contractors or volunteers, may attend meetings only occasionally when invited by the project manager.

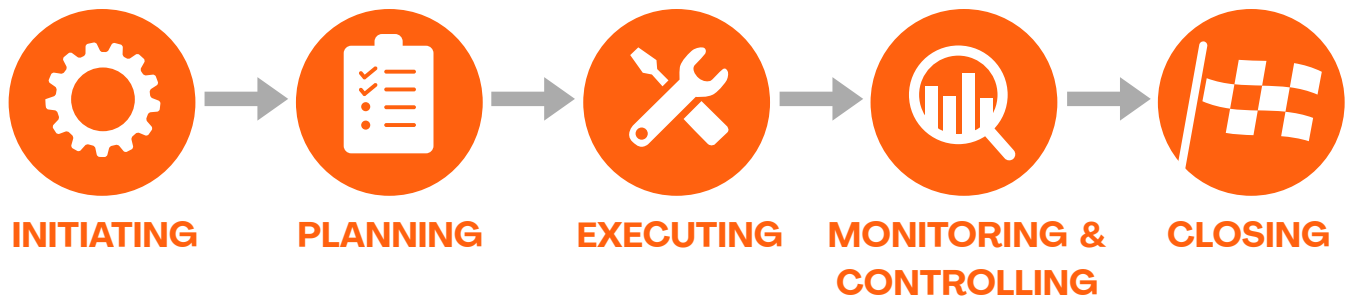


Refer to Team Directory Template in the Appendix on page 52

The team directory template serves as a guide to organize essential information about each project team member, such as contact information and assigned responsibilities. Consider distributing the team directory to all project team members and project stakeholders.

Project Management Process Groups

All projects, regardless of how big or small, have stages, phases, or steps. *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)* – Sixth Edition calls these stages, phases or steps processes or Process Groups. **Process Groups** help the project manager and team members define, organize and keep track of all the work that needs to be completed for a successful project. The Process Groups are:



Initiating is the beginning of the project. The project manager is normally assigned by management, and project stakeholders are identified. The project manager, project sponsor and, if applicable, the team members and other stakeholders start to consider the project idea. The idea is researched, evaluated, defined and justified. The project sponsor and project stakeholders' expectations, requirements and involvement in the project are understood. The project goals and objectives are defined; project constraints are discussed and evaluated; project outcomes are determined; and the project is authorized by management.



Planning is determining the course of action for the project. The project manager and team members define the tasks that need to be completed. They also determine what staff and other resources are needed, the timelines, the project completion date and the available budget. Individual plans may be created to address project risk, quality, communication and procurement. Without careful planning, a project manager and project team may find it difficult, if not impossible, to achieve project success. Even with the best planning, some project plan rework may be required as the project evolves. A new requirement could be identified or an issue could be encountered, which could impact the work to be performed and the project timeline.



Executing is working the plan. This process consists of working on or performing the tasks that were defined during the planning process.



Monitoring and Controlling is monitoring the project's process, controlling issues and managing changes from the original project plan. As the project is monitored and controlled, changes to the project constraints may require the original project plan to be evaluated and then modified to ensure project objectives and expected outcomes are being met.



Closing is the end of the project. It is the acceptance of project outcomes by the appropriate people and signoff by the project sponsor. It also includes evaluating and capturing lessons learned, performing final administrative work and ending the project by celebrating project completion and success.

Ongoing Project Functions

There are other management functions that a project manager and team members perform throughout the project. These functions are:

- ✓ **Integration Management:** Coordinating the interaction of the processes so that all components or parts of the project are completed in the right order and at the right time
- ✓ **Scope Management:** Ensuring team members complete all of the tasks necessary to achieve project goals and provide a quality outcome
- ✓ **Time Management:** Ensuring the team completes the project according to the schedule
- ✓ **Cost Management:** Ensuring the project is completed within the approved budget
- ✓ **Quality Management:** Ensuring that the project outcome—the product, service or result—satisfies the project stakeholders' needs and meets their standards
- ✓ **Human Resources Management:** The effective utilization of project team members to complete the project
- ✓ **Communication Management:** Ensuring the right information gets to the project sponsor, project manager, team members and project stakeholders
- ✓ **Risk Management:** The identification, analysis and response to unexpected situations that arise
- ✓ **Procurement Management:** The determination and acquisition of resources, such as supplies and vendors, needed to best complete the project

In the following sections, we will explain the five Process Groups and ongoing project functions in more detail.



Key Vocabulary

Project management: An approach to be followed to ensure that all required project work undertaken to create a product, service or result is planned and completed within a specified time, schedule, cost and quality

Project: A temporary endeavor with a definite beginning and end that creates or produces a unique product, service or result

Deliverable: The outcome of the project

Project Manager: The person responsible for ensuring a project achieves its goals and objectives

Stakeholders: The people or organizations that are involved or have an interest, either positively or negatively, in the project and project outcome; they may include customers, clients, suppliers, vendors and contributors

Project Sponsor: The person or group who provides resources and support for the project; is responsible for providing management oversight; and signs off on the project's outcome

Team members: The people who work on the project and contribute to its success

Process Groups: The stages, phases or steps of a project that help a project manager and team members define, organize and keep track of the work that needs to be completed for a successful project



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CHAPTER 1



Initiating Process



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The first action taken when beginning, or **initiating**, a project is to define the project goal and determine the reasons for the project. Some organizations refer to this as the project rationale or the business case.







The **project manager** is normally assigned by someone in the organization.

The project manager, project sponsor, and, if applicable, team members and project stakeholders, research, analyze, and collaborate to clarify the reasons for the project. The team agrees on the reasons and need for work, crafts a clear statement of purpose with anticipated deliverables, and management approves the project. Effective communication is critical during this process and might occur by e-mails, phone calls, and meetings.



There are basic questions that need to be answered when starting any project.

The answers to these questions help guide the project from start to finish. They are:

-  **Why** is the project being initiated? (The project stakeholders should discuss and agree upon the answer for this question.)
-  **Who** is this work being done for? Who are the project sponsor and the key project stakeholders that might use the final product, service, or results?
-  **What** are we going to deliver? What work do we need to complete; what resources and funds do we need to produce these deliverables?
-  **When** will we produce these deliverables? When will the project stakeholders review them? When will the project sponsor approve and accept the final project outcome?
-  **Where** will the deliverables be used?
-  **How** are we going to achieve the project's goal and objectives? How will success be measured?

To see what this might look like in practice, let's look at two different potential projects.

1

Project 1 is the planning of an annual corporate picnic to be held during June for all corporate employees and their families.

WHY	To thank the employees for all their hard work over the last year.
WHO	Corporate employees and family members. The project sponsor is the head of the corporation's operations.
WHAT	A corporate picnic.
WHEN	The corporate picnic will be held during June
WHERE	Local park
HOW	Coordinate family activities and food to accommodate the size and needs of the group. The project will be considered a success if 75% of the employees and families attend and whether they have fun.

2

Project 2 is a can and non-perishables food drive being held by the sports teams at a local middle and high school.

WHY	The local food bank has been running short of food for the last three months and has not been able to provide food to all of those in need. The youth would like to help the food bank replenish their supply of food.
WHO	The local food bank. The project sponsor is the director of the youth's athletic program for the schools.
WHAT	Cans and other non-perishables will be collected.
WHEN	The drive will be conducted during the last week in October and first two weeks in November. The project planning will start in early October.
WHERE	Place boxes outside of local stores and at the middle and high school.
HOW	We will consider the project a success if we are able to collect over 10,000 cans and other non-perishable food items.



Exercise 2


Time to complete: 10 minutes. Complete this exercise either as a group or individually.

Think about a project you are about to work on or may have previously completed. How would you respond to the *Why*, *Who*, *Where*, *What*, *When*, and *How* questions?

WHY	
WHO	
WHAT	
WHEN	
WHERE	
HOW	

The Project Charter

The answers to each of these questions provides the information necessary to create a **Project Charter**, which is a document “authorizing” the start of the project and used as a starting point to further clarify and refine the project. A Project Charter documents the reason or need for the project and provides high-level answers to the *Why, Who, Where, What, When, and How* questions.



Refer to the Project Charter/Project Scope Statement Template in the Appendix on page 53–54.



Exercise 3

Time to complete: 15 minutes. It is recommended to complete this activity as a group.

Using the template on pages 53–54, practice creating a project charter for the corporate picnic or the food drive projects identified earlier. Remember the project charter captures the high-level answers to the *Why, Who, Where, What, When, and How* questions.

With a completed project charter, there is now enough information to start the project’s **Planning Process**.

Key Vocabulary

Initiating: The beginning of the project, in which the project manager is assigned or selected, the project is defined, and authorization to start the project is given—one of the five process groups

Project Charter: Document authorizing the initiation of the project and used as a starting point to further clarify and refine the project—documents the reason or need for the project and provides high-level answers to the *Who, What, Why, Where, When, and How* questions



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CHAPTER 2

Planning Process



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nce the project has been given the go-ahead, it is time to create a **project scope statement** and develop a **project plan**.

A project scope statement builds upon and clarifies the information in the project charter, while the project plan lists all the work that needs to be completed, the schedule or timeline for completing the work, the resources and the budget.



Project Scope Statement

Writing the scope statement is the first action taken in the planning process. A project's **scope** is the work that will or will not be done to create the unique product, service or result.

The project charter created during the Initiating phase began to define the project. Now the scope statement clarifies and expands upon the project charter's project description, reason or justification for the project and its requirements. It also adds additional information such as the project constraints (limiting factors), assumptions (factors about the project that you consider true without getting proof), boundaries (what is and is not included in the project) and user acceptance criteria (the conditions that must be met before deliverables are accepted).

Creating the scope statement is a joint effort between the project stakeholders and the team.

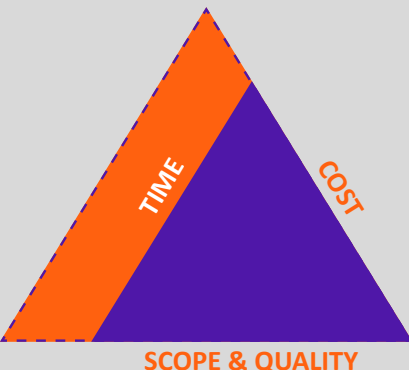
They start by reviewing and updating the information in the project charter. They also make sure they have agreed upon the requirements and confirmed the finished product, service or result. An open communication channel between the project stakeholders and project team is essential. During these discussions, different expectations may arise, making it necessary to redefine project deliverables and, sometimes, the schedule and budget.



With a clear scope, the project manager and team further plan the project by:

- ✓ Determining the tasks, sequencing the tasks (listing the tasks in the order they need to be carried out and completed) and creating a work breakdown structure
- ✓ Determining the schedule, including the start and completion time for each task, and the project completion date
- ✓ Identifying and assigning resources such as team members, equipment and facilities
- ✓ Creating a budget

The scope statement is an important project document because it defines the project parameters and establishes the baseline for measuring success. It is the basis for all future project decision making and is referred to when changes to the project are requested. It is the document that the final deliverable—the project outcome—is compared to for acceptance, and assists with creating a common understanding of the project expectations among project stakeholders. For a project to be successful, it must meet or exceed the expectations that are outlined in the scope statement. The scope statement is used as the starting point when planning all the work that needs to be completed, including creating the project schedule, determining what people and other resources will be needed and estimating the budget.



Understanding a project's constraints is critical to its success.

The diagram to the left depicts the relationship and interdependence between a project's scope, time, cost and quality constraints. If one side of this triangle becomes larger, at least one other side will need to adjust as well to accommodate this change. For example, if a project's scope is increased, its budget may also need to be increased to meet the new expectations.

Most projects have restrictions to one or all of these constraints that could impact their success. When starting a project, it is important to find out if you are under a strict deadline, have limited funding or if the quality of your outcome is critical. Since a restriction or change in one of the constraints can impact another, a project manager must keep the relationship and interdependence between the constraints in mind as they plan and work on the project in order to be successful.

Refer to the Project Charter/Scope Statement Template in the Appendix on page 53–54.



Exercise 4

Time to complete: 15 minutes; recommend completing this exercise as a group.

Let us use the project charter that we created for the picnic or the food drive. Let's expand on the project description and add additional deliverables. Include the following scope statement criteria in the document:

- ✓ Constraints
- ✓ Assumptions
- ✓ Boundaries (what will and will not be included)
- ✓ Risks
- ✓ User acceptance criteria



You now have a scope statement—a document that can be used to start defining the work.

Project Work—The Work Breakdown Structure (WBS)

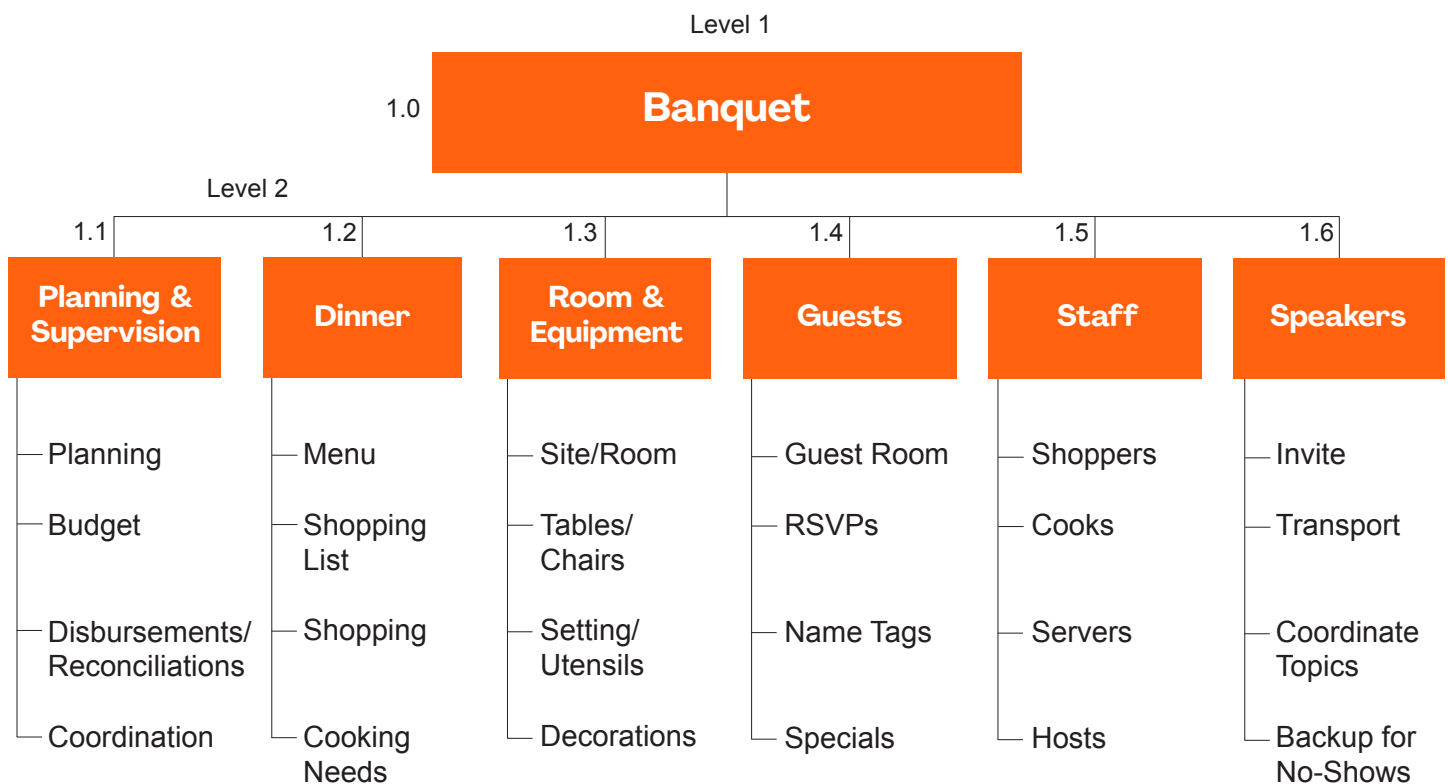
Once a completed scope statement is agreed upon, the project manager and team members start defining the necessary work. They do this by creating a **work breakdown structure** (WBS). A WBS is a hierarchical breakdown of all the work that needs to occur to create the product, service or result. It is used to organize, define and track the progress of project tasks. Think of it as a checklist, either a paper or electronic tool, of the work that needs to be completed.

To create a WBS, the project manager and project team members start by identifying and listing all the deliverables and tasks that need to be completed. When the project team is comfortable with the list of deliverables and tasks, they sort or sequence the list into the order of performance.

Some tasks will need to occur before the start or completion of other tasks, while other tasks can start at the same time. The easiest way to determine all the work that will need to be done is to identify the project deliverables. For each deliverable, you should ask:

- ✓ What tasks need to be completed?
- ✓ In what order do these tasks need to be done?

WBS Example



Project Schedule and Resources

After the work has been defined, the project manager and project team members determine the time required to complete each task, assigning start and end dates for each task. This is known as the project schedule. As the schedule is determined, the resources and team members responsible for doing the work are assigned.

Project managers and project team members must manage their time carefully to ensure that project tasks are completed on time. But it is easy to underestimate the time requirements for each project task. Underestimating the amount of time needed to complete the overall project or each task is a common error when planning and working on a project. Gathering realistic estimates from team members or others assigned to complete tasks can help to create accurate estimates for task completion.

The easiest way to determine the schedule is to ask:



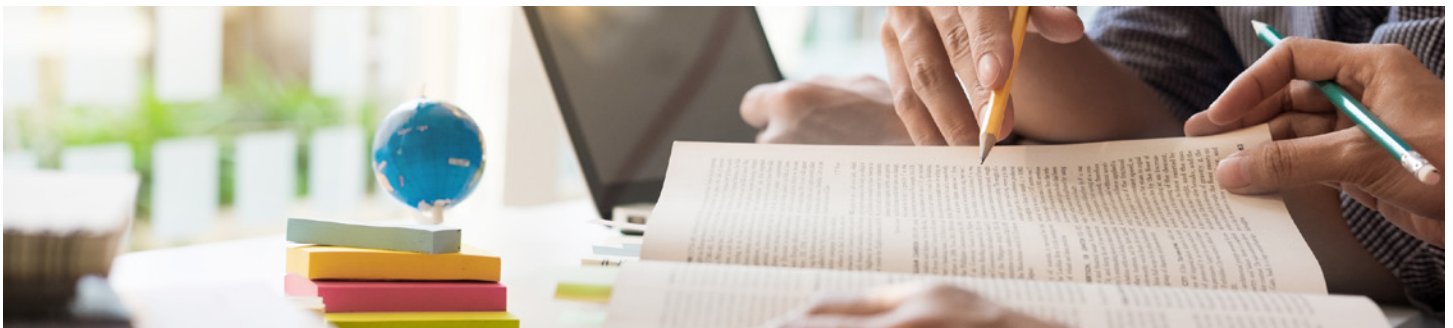
When should each task and deliverable be completed?



Who is responsible for each deliverable and task?



Is it realistic to complete the work in the estimated timeframe?



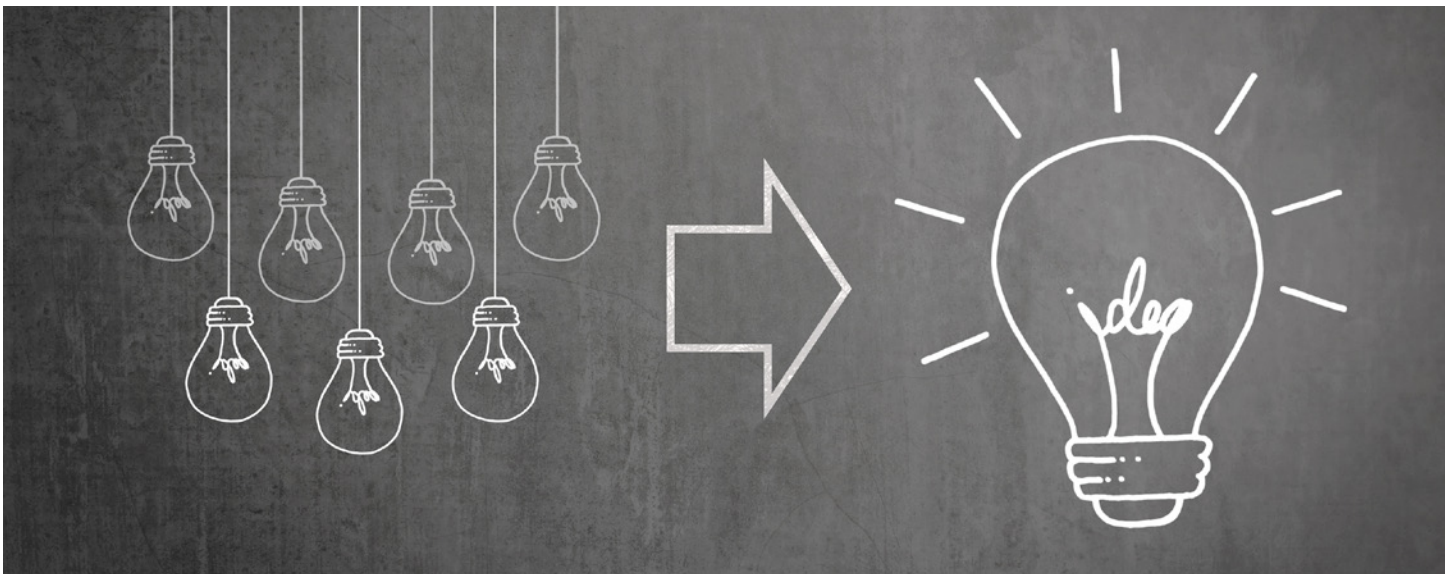
Think of the combination of the work, schedule and assigned resources as the project plan. Professional project managers may use a specific project management software or productivity tool such as Microsoft Excel to create a project plan that lays out the project's necessary work, timeline and resources. It is also possible to use a simple table such as the **Project Plan Template** on page 56 of the Appendix.

Before finalizing the project plan, the project manager and team members need to establish the critical path, which determines the earliest date the project can be completed. Once the critical path is known, the duration estimates, expected start date and expected end date for each task may need to be modified. This will result in an updated project plan.



In developing the project plan, include:

- ✓ Each deliverable and associated tasks
- ✓ Tasks in order of performance
- ✓ Deliverable/task name
- ✓ Duration for each task (anticipated amount of time required to complete the task; this information should be in hours, days or weeks as appropriate for the project)
- ✓ Expected start and end date for each task
- ✓ Project completion date
- ✓ Individual(s) responsible for each deliverable/task (It may be necessary to have multiple tasks performed at the same time by the same person.)
- ✓ Any notes or comments that might help the team



Example of a Project Plan

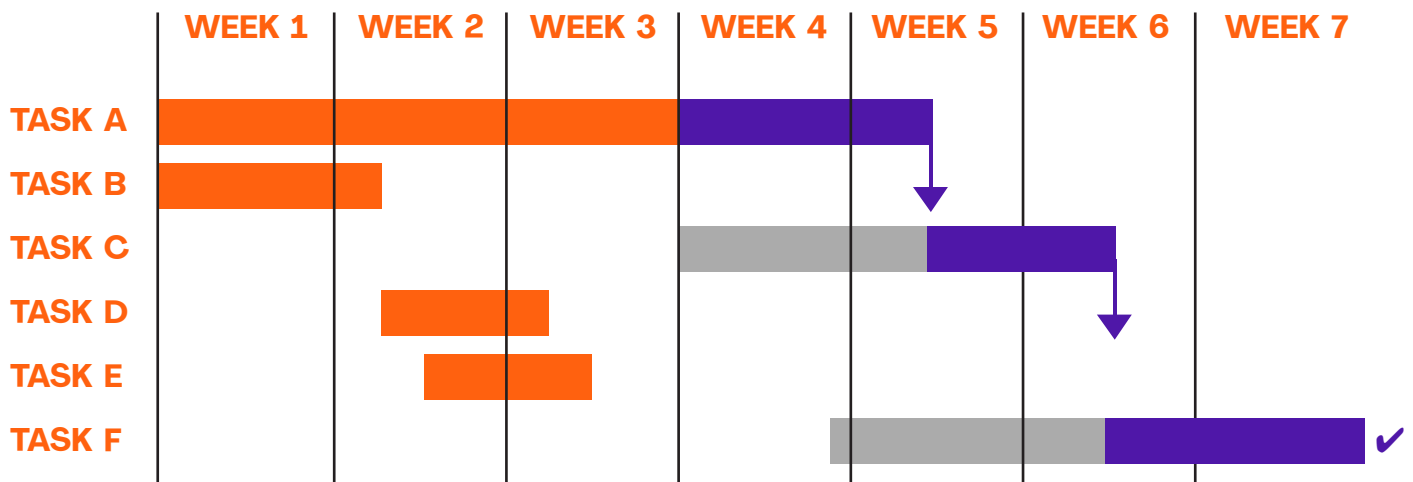
Project Title: One deliverable with Associated Tasks for Corporate Picnic.

WBS #	DELIVERABLE TASK NAME	DURATION	START DATE	FINISH DATE	RESOURCES	COMMENTS
1.0	Location of facility	5 days	4/1	4/5	Suzy Que	
1.1	Call local parks	3 days	4/1	4/3	Johnny Oho	
1.2	Determine budget for renting space	1 day	4/3	4/3	Larry Dean	
1.3	Design a map	1 day	4/3	4/3	Michael Smith	
1.4	Print activity list	.5 day	4/4	4/4	Michael Smith	
1.5	Receive approval and signoff	.5 day	4/4	4/4	Mr. Finely	
1.6	Sign contract with facility	1 day	4/5	4/5	Purchasing	

The Critical Path

The Critical Path Methodology (CPM) provides the project manager with information about the amount of time necessary to complete each required task. The critical path is the sequence of tasks that requires the longest duration to complete with no extra time, or what is known as slack. Therefore, it is the minimum length of time required to complete the project. Tasks that make up the critical path do not overlap. They are performed sequentially with one task being completed before the next task begins. If the time taken on a task that is part of the critical path is longer or shorter than expected, it can impact the timeline of the entire project.

This diagram shows how Task A took longer than expected, which affected when Tasks C & F could start, and added 1.5 weeks to the original schedule.



Project Quality

It is critical to consider the quality of the work being performed and the quality of the final deliverable in order to ensure that they live up to the stakeholder's expectations and standards. An important part of this is defining processes that verify and validate that the major project deliverables will meet project stakeholder expectations, and building these into the project plan.

Quality reviews need to be performed on a regular basis throughout the project's execution, but they are only helpful if project stakeholders agree on the criteria for measuring project success. This is why defining and agreeing upon the criteria is such an important part of developing the scope statement. While there are many tools to assist in measuring quality, a simple yet effective method is using a checklist to verify that the work performed meets the agreed-upon standards.

Project Communications

Communication has been discussed throughout this document as being critical to the successful completion of the project. It is important for the project manager, project team and project stakeholders to understand why and how communications will occur throughout the project.



A good communication plan answers *what, when, who, where* and *how* questions:

- ① What needs to be communicated (e.g., status report, project plan)?
- ② When does the information need to be distributed (e.g., frequency)?
- ③ Who should receive the information (e.g., all stakeholders, team members)?
- ④ Where should the information be distributed and stored (e.g., file cabinets, notebooks, computers or websites)?
- ⑤ How, and in what format, should the information be presented (e.g., memos, email, mail, phone messages, meetings, fax, text messages and reports)?

Project Risks

It is important to identify and understand possible unexpected events or conditions that might impact the successful outcome of the project. Identifying these potential risks provides the opportunity to plan actions that will help to avoid a potential negative project outcome, or even a project failure. The team members and project stakeholders should brainstorm and continuously communicate to identify and document possible risks and how those risks will be addressed. They should work together to reduce or eliminate the negative impact of risk occurrence. A checklist is one tool that can be used to aid in risk planning.

Project Procurement

Many organizations have a defined procedure for procuring products and services. Take the time to understand the organization's procedure and follow it. If there is no procedure, or it is not documented, it may be necessary to develop a formal procurement procedure and to include it in the Planning process.



If you need to develop a procedure, consider including the following:

- ✓ Understanding the reasons and requirements for procuring any product and/or service
- ✓ A process for soliciting bids, if needed (your organization's process may require a bid only if the amount expected to be spent exceeds certain limits)
- ✓ Negotiating the terms with vendor or supplier contracts
- ✓ Having a legal expert review contracts and approve contractual agreements
- ✓ Ensuring a billing and payment method is in place and appropriately communicated to involved parties
- ✓ Ensuring that all schedule and quality requirements that apply to the service or product being procured are clearly described and understood and accepted by the supplier

With an agreed-upon scope, a clearly defined schedule and other planning activities completed, the project plan is ready to be executed. If at any time during the Executing process it is determined that additional deliverables or tasks are required, or that the time allocated to complete tasks is underestimated, the project plan should be reviewed and modified. Revisiting and modifying the project plan is common.

You are now ready to begin the **Executing** process.

Key Vocabulary

Planning process: Determining the course of action for the project, including establishing the scope of the project, refining the objectives and deciding upon the course of action that will allow the project to be completed successfully; one of the five Process Groups

Project plan: Document showing necessary work, schedule and assigned resources

Scope: The work that will or will not be done to create the unique product, service or result

Work breakdown structure: A hierarchical breakdown of all the work that needs to occur to create the product, service or result. It is used to organize, define and track the progress of the project tasks

Project schedule: Document showing each task with the time required to complete it, along with start and end dates

Critical path: The sequence of tasks that requires the longest duration to complete with no extra time; the minimum length of time required to complete the project

Project scope statement: The description of the project scope, major deliverables, assumptions and constraints



PROJECT MANAGEMENT SKILLS FOR LIFE®

CHAPTER 3



Executing Process



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The **Executing** process is the “working” of the project plan. The project manager directs, manages and tracks the work based on the project plan. The project manager also coordinates the people and other resources, and ensures that project work is completed on time. They also make sure team members understand what is expected of them, such as which tasks they are responsible for completing (for example, creating written status reports).

As you start executing the project plan, you may realize that there is a need to change it. This can happen because:

- ✓ Tasks were overlooked
- ✓ Tasks were initially not included
- ✓ Time to complete a task was underestimated
- ✓ A team member is no longer able to work on the project



Your project plan (which, as you saw in the last chapter, includes the work to be completed, the schedule and assigned resources) is an important tool that is used continuously and needs to be updated throughout the project. As you execute the project plan and make changes, remember to make the appropriate team members aware of any changes to their tasks and the impacts of the changes to the overall project.

If the time allocated to complete a deliverable is not sufficient, the project manager and the team members need to meet and collaborate with the project sponsor and any other appropriate project stakeholders to determine a course of action. If changes are required to the deliverable that require the tasks or timeline to be changed, modify your project plan accordingly. Any such changes may also require changes to the project charter and scope statement because these documents are the official project authorization documents and include the project description and acceptance criteria.



Here are some tips for conducting successful meetings:

- ✓ Determine a meeting place and time
- ✓ Conduct the meeting with an agenda
- ✓ Ask all members to report their status on tasks
- ✓ Identify any new risks or issues
- ✓ Discuss solutions to issues
- ✓ Ask members if they are on schedule and will meet their task deadline
- ✓ End each meeting on time and announce when the next meeting will be held
- ✓ Send out meeting minutes



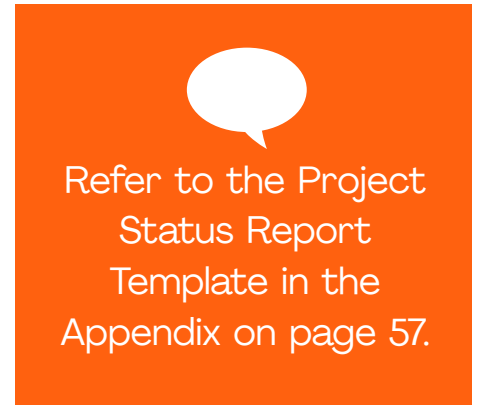
It is important to hold regular project status meetings throughout the Executing process to ensure the project is proceeding as expected, keep team members current on the project status and identify and resolve project issues.

It is also essential for all team members to understand the procedure for providing written status reports because written status reports help keep the project, and everyone working on the project, on track.

Communication continues to be important throughout the project. As a team member, make sure you are keeping the project sponsor and project stakeholders apprised of the project status. It is the project manager's responsibility to present the project status to the project sponsor and other project stakeholders. Be sure that information is presented in a format that is relevant to your particular audience.

Often during the Executing process, an organization procures products and services from third-party vendors, suppliers or consultants. It is important to understand and comply with any contract or solicitation processes in place in your organization.

Let us look at some good practices to follow during the **Monitoring and Controlling** process.



Remember—things can go wrong on any project. Address project issues promptly. Remain flexible and be willing to adapt to changes as necessary. Finally, keep a sense of humor.

Key Vocabulary

Executing process: Working on or performing the tasks that were defined during the Planning process; one of the five Process Groups



PROJECT MANAGEMENT SKILLS FOR LIFE®

CHAPTER 4

Monitoring & Controlling Process



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Monitoring and Controlling begins as soon as the project manager and project sponsor start defining the project. It is performed simultaneously and continuously throughout the project. It is the project manager's responsibility to monitor, track and control the work as the project plan is being executed. While the project manager has the ultimate responsibility for project completion and delivering the expected product and service within the scope, time, cost and quality constraints, it is also the responsibility of everyone on the team. Each team member must make sure they start and complete their tasks on time and inform the project manager of any issues they encounter or change requests received.

Issues are any questions or points of concern that might impact the project plan. Change requests are requests to expand or reduce the project. These requests must be approved by the project sponsor before they are agreed to. This is because they normally impact



the project constraints—scope, time, cost and quality. It is necessary to continually monitor and ensure that the scope of the project is on track. What is being delivered should also be consistent with the anticipated deliverables. Meeting expectations requires continuous review of the quality of the work. It may also may be necessary to make a change in the scope of work during the review process due to a project issue or a change request. While this is not desired, it can happen.

Remember to update the project plan and, if necessary, the scope statement to include these changes. It is also helpful to keep documentation about project issues and change requests. This documentation helps answer current project-related questions as to how an issue was resolved or why a change to the plan occurred, as well as providing historical information for future similar projects.

One important thing to watch out for while Monitoring and Controlling a project is **scope creep**. Scope creep is when work is added to the project without appropriately adjusting the schedule and resources, and without obtaining sponsor approval.



Refer to Project Change/Issue Request Template
in the Appendix on page 58.



Exercise 5

Time to complete: 10 minutes; complete this exercise as a group discussion.

This exercise will help you better understand how an unexpected change can impact a project. First, select a past project that had changes during the project's execution.

- ✓ How did the changes impact the scope and/or schedule of the project?
- ✓ What could happen to a project to cause the project schedule to slip or incur scope creep?

Once the work has been completed, the project manager and team members collaborate to ensure that the project requirements and expectations were successfully met and the final deliverable complies with the user acceptance criteria in the scope statement. The project manager and team members then meet with the project sponsor and other project stakeholders to “deliver” the completed project.

This begins the **Closing** process.

Key Vocabulary

Monitoring and Controlling process: Tracking and reviewing a project's progress and making changes to the plan as needed to make sure the project objectives and expected outcomes are met; one of the five Process Groups

Issue: A current condition or situation that may have an impact on project objectives

Change request: A formal proposal to modify a document, deliverable or baseline

Scope creep: The uncontrolled expansion of product or project scope without adjustments to time, cost and resources

1

2

3

4

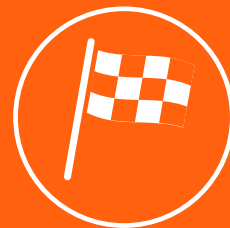
5



PROJECT MANAGEMENT SKILLS FOR LIFE®

CHAPTER 5

Closing



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The **Closing** process is done at the end of the project and consists of creating a lessons learned document, performing an administrative close (which is the final work of the project) and celebrating the project’s completion.


Lessons Learned

At the end of the project, it is beneficial to hold a final team meeting where the project is reviewed and discussed, and lessons learned are identified and documented. This type of meeting is commonly referred to as a wrap-up meeting or a lessons learned meeting. This meeting provides a great opportunity for team members to share their thoughts on what went well, what they would change and improve and what they would not do again. These thoughts, or “lessons learned,” should include both positive and and constructive notes, and



should be written down and organized in a document. Store this lessons learned document with other project documentation because it is a reference tool for a future project team, particularly if it is a similar project. Some possible questions to ask are:

- ① Did the project sponsor provide the right level of support to the team? If not, why not?
- ① Did all of the team members understand the reason for the project? If not, why not?
- ① Did the team identify the right project requirements? What could we have improved?
- ① How well did the team define the work that needed to be performed?
- ① If work was missed, is there anything that could have been done differently to avoid missing or overlooking necessary work?
- ① How accurate was the timeline? What could have been done to better estimate the time required for each task?
- ① Were risks identified early in the project? Were risks discussed throughout the project?
- ① Did the vendors and suppliers keep us informed of their progress?
- ① Could we have improved our communication process? Did everyone have access to the information and documents they needed? What could we have done differently?
- ① Were problems identified and addressed quickly? If not, why not?
- ① Was the sponsor satisfied with the final results? If not, why not?


Refer to Lessons
Learned Template
in the Appendix
on page 59.

During the discussion, as each question is considered, solicit reasons or causes for problems. Document the things that went well and the things that could be changed and improved. Also note what the team should not do again.

Final Work

There is some final work that needs to occur before the project manager and team members move on to other projects. This includes:

- ✓ Ensure third-party contracts are completed or closed out. Be sure that any contractual agreements used during the project are closed and that all of the appropriate invoices are processed for final payments.
- ✓ Team members should sign off that they have completed their assigned work. When all work is complete, collect and store any project-related paperwork and documents (such as the project plan, completed schedule, budget, team minutes and lessons learned) in a paper file or notebook, on a computer, on your organization's network or some other appropriate storage media. The documents become reference material for future project teams and can potentially save considerable time when starting the next project.
- ✓ The project sponsor accepts the delivery of the project outcome and signs off on the project on behalf of the project stakeholders. The person who signs off on the project should have been identified during the Initiating and Planning processes.
- ✓ If additional requirements are identified at this time, it would be appropriate to approach these work requirements in another project, beginning with the Initiating process.



Celebrate!

In addition to the lessons learned session and storing all documents, it's time for the team to celebrate! Regardless of how well the project went, celebrating the project's end is an important way to wrap it up.

The celebration can be anything special that you think is appropriate. It might be as simple as a verbal thank you and the presentation of a certificate or ribbon to each team member, or a more subtle recognition like a handwritten thank you note. It could also be a gala event, a dinner, a lunch or something as simple and inexpensive as cookies. The purpose of celebrating is to thank the team members and show them their work was appreciated.



Key Vocabulary

Closing process: The end of the project, including acceptance of project outcomes by the appropriate people, signoff by the project sponsor, evaluating and capturing lessons learned, performing final administrative work and celebrating project success; one of the five Process Groups

Lessons learned: The knowledge gained during a project that shows how project events were addressed or should be addressed in the future for the purpose of improving future performance



Summary Review

This document helped you learn key project management concepts. These include the importance of defining the work, determining the project schedule, and how to build a project plan that is as simple or complex as you need it to be. We also highlighted how important it is to communicate with all members of the team, including the project sponsor, project manager, team members, and project stakeholders. It is equally important to document and share information regarding the status of the project. Without communication, you cannot be successful.

This document covered:

- ✓ Definition and analysis of project management
- ✓ The definition of a project
- ✓ Describing the roles and responsibilities of the project team
- ✓ Writing a project charter and scope statement
- ✓ Creating a project plan, including the work breakdown structure, schedule, resources, and critical path
- ✓ Building quality into the project
- ✓ Communicating from project start to completion
- ✓ Understanding potential project risks
- ✓ Procuring products and services
- ✓ Monitoring, tracking, and reporting on the project's progress
- ✓ Closing a project

Key Points:

A project:

- ✓ is a *temporary* endeavor with a definite beginning and end, *and*
- ✓ creates or produces a *unique* product, service or result

The **project team roles** include:

- ✓ Project sponsor
- ✓ Team members
- ✓ Project manager
- ✓ Project stakeholders

The following basic questions need to be answered when starting any project:

- ① Why is the project being initiated? (Project stakeholders should discuss and agree upon the answer to this question.)
- ① Who is the work being done for? Who are the project sponsor(s) and key project stakeholders that might use the final product, service, or results?
- ① What are we going to deliver? What work do we need to complete? What resources and funds do we need to produce these deliverables?
- ① When will we produce these deliverables? When will the project stakeholders review them? When will the project sponsor approve and accept the final project outcome?
- ① Where will the deliverables be used?
- ① How are we going to achieve the project's goal and objectives? How will success be measured?

The five project management process groups are:



INITIATING



PLANNING



EXECUTING



CONTROLLING



CLOSING



Appendix



Adult Human Bingo

Here's your chance to learn about your fellow students! Mingle with the others in your training, looking for individuals who meet the criteria identified in the grid below. When you find a match, have that person sign the appropriate square. When you get five squares in a row (across, down or diagonal), yell "BINGO!"

B	I	N	G	O
Loves to cook	Knew what they wanted to be when they grew up and actually became it	Is currently going to school	Can whistle a song (have them whistle it, and join in!)	Likes to scuba dive
Find someone you don't know and introduce yourself	Likes to camp	Knows what the <i>PMBOK® Guide</i> is	Volunteers in their community	Has recently moved from another state or country
Has a pet (find out the pet's name and why they chose it!)	Is currently working more than one job	FREE SPACE	Enjoys the theater (find out what play they saw last!)	Has managed a project
Has been with the same company for 10 or more years	Has just started a new job	Loves chocolate	Has children in school	Has the same birthday month as you
Loves to read (find out the last book they read!)	Is left handed	Is planning a vacation (find out where they are going!)	Loves their job	Likes to take photographs (ask what their favorite subject matter is!)

Student Human Bingo

Here's your chance to learn about your fellow students! Mingle with the others in your training, looking for individuals who meet the criteria identified in the grid below. When you find a match, have that person sign the appropriate square. When you get five squares in a row (across, down or diagonal), yell "BINGO!"

B	I	N	G	O
Plays video games (ask what their favorite game is)	Is or has been a Girl or Boy Scout/Guide	Can whistle a song	Has traveled to a different country	Find someone you don't know and introduce yourself
Has the same birthday month as you	Likes to camp	Belongs to a student club (find out what that club does!)	Has attended a live concert (find out what band or singer they saw)	Has a pet (find out the pet's name and why they chose it!)
Plays soccer/football (ask what position they play!)	Has snorkeled (ask where they have snorkeled!)	FREE SPACE	Has a younger brother or sister (ask their sibling's name and age)	Is going on a family vacation (ask where they are going)
Is in student government (ask what their position is)	Is left handed	Can say hello in 4 languages	Cheers for your favorite team (ask who their favorite player is)	Can do a cartwheel
Is already an aunt or uncle (ask their niece's or nephew's name)	Plays in the school band/orchestra (ask what instrument they play)	Can perform magic tricks	Speaks another language	Likes to read (ask what their favorite book is)

Project Charter/Project Scope Template

Use the project charter template as a starting point for the project scope statement. As the project is clarified and additional information is known, elaborate on the project charter and create a project scope statement. The items in the gray box are usually found only in a scope statement, not a project charter.

PROJECT TITLE: _____

PROJECT MANAGER: _____

Project Sponsor:

Project Description:

Project Reason/Justification:

Project Objectives:

Project Success Criteria:

Project Charter/Project Scope Template (page 2)

Project Deliverables:

Project Start and End Dates:

Summary Budget:

Project Boundaries*:

Project Constraints*:

Project Assumptions*:

User Acceptance Criteria*:

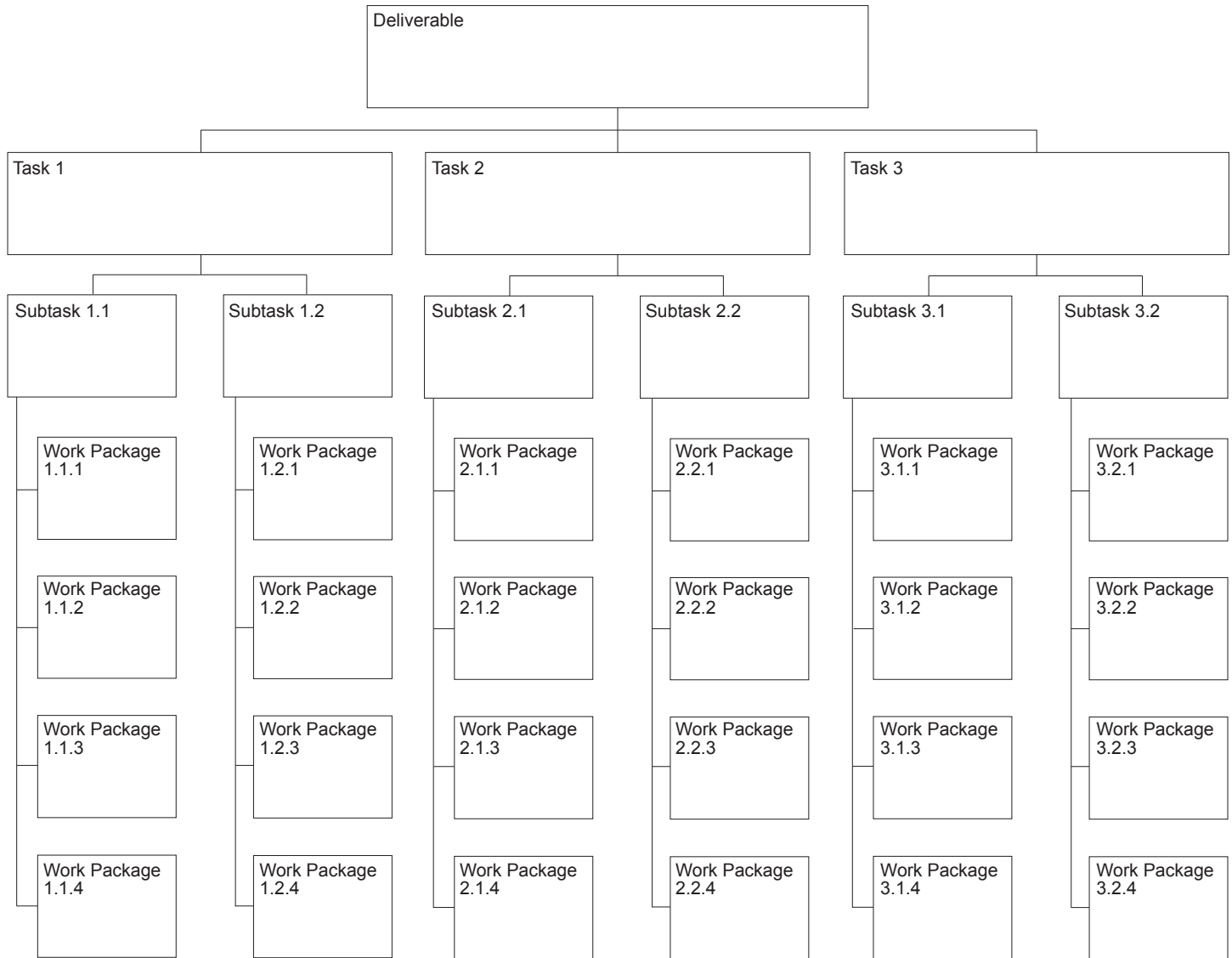
Written by: _____ Date: _____

Approved by: _____ Date: _____

Work Breakdown Structure Template

PROJECT TITLE: _____

PROJECT MANAGER: _____



Your project may not require all of the boxes in the template, or you may need to add additional items.

Project Status Report Template

PROJECT TITLE: _____

PROJECT MANAGER: _____

REPORT DATE: _____

CURRENT STATUS: _____

Activities completed during this period:

- ✓
- ✓
- ✓
- ✓

Activities planned until the next meeting:

- ✓
- ✓
- ✓
- ✓

Identify any issues and resolutions:

Identify any changes to the project scope:

List any problems, concerns or recommendations:

Project Change/Issue Request Log Template

PROJECT TITLE: _____

PROJECT MANAGER: _____

Change Request Log

	DESCRIPTION OF CHANGE	REQUESTED BY	REQUEST DATE	IMPACT ON PLAN	APPROVED/ REJECTED DATE	STATUS
1						
2						
3						
4						
5						

Issue Log

	ISSUE	OWNER	STATUS	DATE OPENED	DATE CLOSED	RESOLUTION
1						
2						
3						
4						
5						

Lessons Learned Template

What We Did Right

(e.g., Did key project stakeholders support this project and were they involved in the decision making? Was the entire team committed to the project and did they work well together?)

What We Could Improve

(e.g., If we had to do this project again, what is the one thing that you would change? What were the main bottlenecks on the project that could have been changed and improved?)

What We Should Continue to Do

(e.g., Continue using the cloud application that enables us to share team communication and document storage. The initial team meeting helped us make sure everyone understood the reasons and deliverables for the project.)

Other Comments:

Training Evaluation Form

STUDENT NAME: _____

DATE: _____

INSTRUCTOR'S NAME: _____

Please evaluate the training using the following scale:

5 = Strongly Agree, 1 = Strongly Disagree, NA = Not Applicable

1. Presentation was well organized, clear and in logical sequence.	5	4	3	2	1	NA
2. The instructor explained things clearly.	5	4	3	2	1	NA
3. The instructor made the session interesting.	5	4	3	2	1	NA
4. There was sufficient time to meet the objectives.	5	4	3	2	1	NA
5. The session materials aided in the learning process.	5	4	3	2	1	NA
6. I found the class practical and useful.	5	4	3	2	1	NA
7. I would recommend this class to others.	5	4	3	2	1	NA

What sections of the class should be given more emphasis?

What sections of the class should be given less emphasis?

How was the class beneficial?

What did you like most about the class? Why?

What did you like least about the class? Why?

Other organizations you think might be interested in this class:

Additional comments:

Project Management Skills for Life® Manual

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