Project Management

for people who aren't project managers

What Is a Project?

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

What a Project Is Not:

- A series of tasks,
- A process/procedure, or
- An ongoing activity.





Why Might a Project Be Unsuccessful?

Think of a project you were involved in that was not successful. What were some of the reasons?

Knowing what makes a project fail can help us know what makes them successful.

Common reasons include:

- Lack of planning/Lack of time,
- Misalignment with agency goals,
- Unrealistic/unachievable goals,
- Unrecognized/unaddressed problems,
- Wrong (no) leader/team,
- Lack of resources and support, or
- Unresponsive to change.

Fewer	than	%	of	companies
success	fully complete all of their pro	jects.		
(Source	: PricewaterhouseCoopers)			
Betwee	n Ś	per ve	ear is	lost on the

Between \$_____ per year is lost on the failure of IT projects in the U.S. *(Source: Harvard Business Review)*

Underestimation is listed as a contributing factor on 35% of unsuccessful or failed projects.



What Makes a Project Succeed?

Think of a project you were involved in that was successful, either in whole or in part. What were some of the reasons?

Common contributors to project success include:

- A relevant, clearly defined outcome, Clear, ongoing communication,
- Achievable, relevant goals,
- Careful planning,

- Careful monitoring, and
- Responsiveness to problems, issues, and changes.



What Triggers a Project?

- An organizational or customer need,
- A supervisor request,
- Strategic planning,
- Legislative Changes,
- New technology, or
- Someone has an idea!



The trigger for a project will give us our WHY.

- What are we trying to accomplish?
- What needs to change?
- What can we improve?

What was the trigger for a project that you worked on?





Identify the Stakeholders

Stakeholders are anyone who may be affected by the project, either positively or negatively. Once identified, ask them to spell out what success means to them. The success of your project depends on whether stakeholders understand and agree with your goals. Stakeholder management can make or break a project.

Stakeholders are people who have a vested interest in the success of a project, such as:

- Those who are directly affected by the outcome,
- Those whose participation is essential for project success, and
- Those whose approvals and support you need.

How Can You Meet the Need?

Below are some steps you can follow to get everyone on the same page and heading toward a common goal.

Identify Criteria:

- Clarify budget, resources, timelines, and deadlines.
 Eliminate ideas that are unrealistic or impractical.
- Ensure everyone is on the same page.

Brainstorm:

- Ask open ended questions.
- Share ideas without judging or criticizing.
- Build on ideas shared by others.
- Write all ideas down.

Discuss and Narrow Ideas:

- Eliminate ideas that won't get you to your goal.
- Add new ideas that come up.

Evaluate Options:

- Discuss which idea will best meet the goal.
- Describe options in specific terms.
- Select the 'best' option.

What methods have you (or others) used to find solutions to challenges facing your team?

Define Your Project Objectives

Project objectives are specific measurable outcomes that the project aims to achieve within a specific timeframe. The more clearly you state your objectives in the beginning, the less disagreement there will be at the end about whether you have met them. In IT projects you may hear this called the 'definition of done.' Be prepared to revise your objectives as you gather more information during the planning phase.



Clear objectives:

- Provide guidance and focus on what the project team must achieve.
- Align stakeholder expectations.
- Influence decision making and resource needs.
- Serve as a roadmap for planning.
- Ensure everyone is working toward a common goal.

Take care to set realistic targets to avoid frustration, demotivation, and failure. Regularly reassess project objectives and openly communicate with stakeholders and team members on constraints and expectations.

What types of measurements tools have you used? Could they work for measuring project success?

The Project Charter

A project charter is a concise written document containing some or all of the following:

- A concise description of project objectives,
- The scope of the project,
- An outline of roles and responsibilities,
- Timeframes and milestones,
- Budget and resource needs,
- Quality requirements, and
- Major risks, constraints, and assumptions.

A charter is crucial for large projects, but many small projects don't have a charter. Either way, make sure you have a common understanding of the list above.

Stage 2: Planning

Planning the project includes:

- Assembling your team and assigning tasks,
- Developing a schedule and budget, and
- Creating a communications plan.

Why Do We Need a Plan?

- You know what your next steps are.
- You set your priorities more easily.
- You know what you're doing is contributing to the success of your project -- and more importantly, you know why!
- You have clear goals.
- It helps you be more creative when looking for solutions.







What to Include in a Project Plan



The people who will bring the plan to fruition.



Necessary resources and how to obtain them.

Schedule of work,

including roles and

responsibilities.



Contingency plans, in case of problems or changes.

The entire team should be involved in developing the project plan. That holds true even for team members who will not be responsible for doing any of the work until the later stages.

Selecting the Right People

- Who has the necessary skills and experience?
- How large should the team be?
- Who has an interest in this project?
- Who has the time to work on this project?
- Who works well in a collaborative environment?



Recruit competent members:

- Identify the skills needed for the project.
- Recruit people to fill in any missing skills or train team members to learn new skills.

Cultivate a supportive environment:

- Encourage collaborative work and emphasize collective achievement.
- Use language that highlights group efforts, such as 'We are making good progress.'

	Champions the project.		 Coordinates activities.
Project	Ensures senior leadership support.	Project	• Recruits effective participants.
•	Provides necessary resources.	-	Keeps work on track.
Sponsor	Clears organizational obstacles.	Manager	 Manages schedule/budget.
	• Approves/rejects final deliverables.		Identifies needed resources.
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Executive	 Helpful when partnering across agencies, divisions, or companies.
Steering	• Approves the charter and any change requests (budget, schedule, scope).
Committee	 Votes at stage gates.

What skills or qualities would you want on your team?

- Identify people who possess the skills, knowledge, and experience for the project.



Project Management Methodologies

The Traditional 'Waterfall'

In the Waterfall Method, phases are completed one at a time. When completed, the team moves from one phase to the next. This is efficient and works well when the project requirements are well understood. But this method is inefficient when project requirements are unclear or shifting as issues or changes that come up in later phases can be expensive to correct. The Waterfall Method:

- Is linear and sequential,
- Uses extensive upfront planning, and
- Defines all requirements before the project starts.

Use the methodology that makes sense for your project. You can use a hybrid methodology as well.

The 'Agile' Method

In the Agile Method, the work is organized in sprints of 4 to 12 weeks. In each sprint, the team completes all phases (analysis, planning, design, testing) to create one of the project deliverables. After the sprint requirements are evaluated and the team repeats the process for the next deliverable. Requirement changes are anticipated and accommodated. The Agile Method favors face-to-face and:

- Is iterative and flexible,
- Utilizes planning that is continuous and evolves throughout the project,
- Adjusts requirements based on ongoing feedback, and
- Focuses on delivering small, workable increments.

Components of a Project Schedule

- Sequence of tasks and activities,
- When each task/activity will start and be completed,
- Which team member is responsible for each task/activity, and
- Project deadlines and milestones.

The larger and more complex your project, the more time and effort it will take to develop a thorough schedule. The following steps are one method you can use to ensure your schedule accurate and complete.

The Scheduling Process

List

List tasks needed for each goal.

List the specific tasks/activities needed to accomplish each goal. Don't worry about sequence at this phase – just build a high-level framework of activities. Involve the people who will be doing the work in this process. They are in the best position to know what is involved and how it can be broken down. On some projects, you may hear this referred to as creating the 'work breakdown structure.'



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Organize lists into major tasks and subtasks.

Organize task/activity lists into major tasks and subtasks. Break tasks into the smallest possible subtasks until your answer represents a component or task that cannot be subdivided further. Determine what order these tasks will need to be completed in. At this stage, you break each task in its smallest and most manageable unit.

Sequence Determine the order of completion.	
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Determine the order in which all tasks and subtasks should be worked. Some aspects of the work can be done at the same time, while others must be done in a specific order.

Set Deadlines	Determine how long each task will take.	
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Next consider how much time will it take to complete each task. Here are a few tips:

- Use your team's experience with the tasks you will be performing. The more familiar your team is with the task, the more accurate your estimate will be.
- Keep time estimates as estimates. They're not guarantees, so don't change them into firm commitments just yet. You'll learn as you go and can update accordingly.
- Make sure all stakeholders are aware of the assumptions behind your time estimates. Consider presenting times as ranges. A fixed estimate is likely to be wrong, but a range is more likely to be right because it accounts for unexpected delays and other issues.
- Pad your estimate. This is acceptable way of reducing the risk that a task (or the entire project) will take longer than the schedule allows. But apply this practice openly and with full transparency about what you're doing.

Decide	Decide who will be responsible.	
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Determine who will be responsible for the work. One team member should take responsibility for each of the primary tasks and activities needed to accomplish a goal. That person may not actually do the work, but he or she should be in charge of making sure it gets done.

Are there any scheduling tools or processes that you've found to be helpful?



Optimize

Optimize your schedule: With your team, critically examine your draft schedule and seek ways to make it more accurate, more realistic, and tighter. Look for the following:

- <u>Errors</u>. Are all time estimates realistic? Also, review the relationships between tasks. Does your schedule reflect the fact that some tasks can start simultaneously and that others cannot start until some other task is completed?
- Oversights. Have any tasks been left out? Has time for training and maintenance been overlooked?
- <u>Over-commitments</u>. Will some employees have to work 10 to 12 hours per day for months on end to complete the tasks assigned to them? Are you expecting a piece of equipment to perform in excess of its capacity? To remove over-commitments, redistribute the workload.
- Bottlenecks. Will work necessary for a particular task pile up at some point in the process?

Share

Once your schedule is done, put it in a visual form that lets everyone see what needs to be done, when it needs to be done, and the relationships between the tasks and activities. There are lots of scheduling tools that can help you do that. Try out a few until you find one that works well for your project.



Types of Resources

- Money
- Space
- Expertise
- Software
- Equipment
- Information

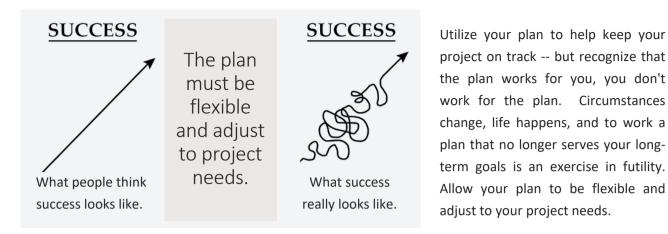
Why is it important to identify the essential resources early in the planning process?

A project can quickly get off track or stop entirely if you can't get the resources you need. When you explore what those resources are, consider the categories above. Documenting requirements will give you a clear picture of what materials, space, or equipment will be dedicated to your project. You'll also know if you need to ask for additional funding to complete the project.

Budget

- Personnel
- Travel
- TrainingSupplies
- Physical space
- Professional services





What Could Go Wrong?

- People or resources unavailable,
- Approvals not forthcoming,
- Loss of team members,
- Internal or external change, or
- Significant delays and issues.



Contingency Planning

Contingency planning is the process of thinking about what could go wrong on your project and what you will do if any of those things happen in order to keep the project moving forward. A good contingency plan prepares your team to act quickly and effectively when something doesn't go according to the plan.

Planning Fallacy: Our tendency to underestimate the amount of time and effort it will take to complete a task, as well as the costs and risks associated with that task—even if it contradicts our experiences.

Stage 3 & 4: Executing/Monitoring & Controlling the Project



Executing and monitoring/controlling the project includes:

- Launching the project with your team,
- Completing the planned work,
- Monitoring and controlling progress,
- Managing risk, and
- Making sure the project stays on track.

The Project Launch

Purpose

Who to Invite

- Introduce people,
 Project leaders,
- Build a team,
- Gain commitment, and
- Clarify understanding.
- Team members,
- Stakeholders, and
- Other key people.

What to Cover

- Desired outcomes,
- Critical deadlines,
- Roles and responsibilities, and
- The Communications Plan.

How to Keep Things Moving

Implementing a project requires time and attention. To keep the project moving forward:

Monitor the work.

- Set up a system: Work with your team to set up a system for monitoring that work and completing the tasks on the project schedule. You can use anything from a white board to online task tools.
- Check in regularly: Meet with your team to make sure the right things are being done at the right time.

Communicate with everyone involved.

- Make team communication two-way: It's just as important to listen as it is to share.
- Hold regular meetings: Stick to a regular schedule as much as possible and keep meeting minutes.
- Use communication tools: Email, SharePoint, and Teams can help keep your team connected.
- Cultivate a supportive environment: Encourage teamwork and emphasize collective achievement.
- Share progress reports: Track the work that is being done and keep task statuses up to date. This will help the team see where people are blocked and may need help. Post reports in a shared location.

What strategies have you used to communicate with your team?

Milestones

Milestones should be highlighted in the project schedule and used to monitor progress. You can also use them as occasions for celebrating progress when celebration is called for. Milestones help:

- Remind team members how far they've come,
- Give a sense of accomplishment and motivation to keep going, and
- Help track where you are in the schedule.



Manage Risks and Issues



Monitor the risks you identified in your contingency plan. Even with a contingency plan, you'll need to keep an eye out for new and evolving risks.

- Collect ideas widely from your team. People's perspectives about risk differ greatly. Some foresee problems that others miss entirely.
- Look internally and externally for risks and issues.
 - Internal risks: Understaffing or lack of training for personnel.
 - External risks: Regulation changes or new leadership priorities.
- Take actions to avoid or mitigate risk.
 - Internal actions: Have back-ups in place if someone leaves or gets busy.
 - External actions: Keep an eye on pending legislation and rulemaking.

How to Handle Issues and Problems

The way the project manager and team handle the issues that come up can make the difference between a successful project and one that fails to meet its goals. Here are some guidelines:

- Act right away to address issues and problems. Most problems can be resolved quickly if they are caught at the early stages.
- Respond quickly to change. Review your project goals, explore the impact of any change on your plan.
- If necessary, revise the plan and schedule. Call the team together to review the plan and decide what changes need to be made and how to proceed.



Reach out to the people closest to problems or potential changes for their insights.

Have you worked on a project that ran into problems and issues or faced unexpected changes? (If you've worked on a project, the answer is yes!) What did you do? What advice would you share with others?



Budget

One way to monitor a project is to keep track of actual vs. planned spending. If spending is higher than expected, figure out why!



Getting Your Schedule Back on Track

- Renegotiate deadlines. Discuss the possibility and consequences of extending deadlines with your team, leadership, and other key stakeholders.
- Use later steps to recover lost time by fast-tracking activities.
- Narrow the project scope. Look for elements of the project that can be dropped to save time.
- Use crashing to deploy more resources. If possible, put more people on the project, but first weigh the cost of additional resources against the importance of meeting the deadline.

Fast-tracking:

Fast-tracking involves doing two activities that were planned to occur in sequence at the same time. For example, you can start electrical work on a building while carpentry work is being done. Fast-tracking doesn't increase cost, but it does increase risk.

Crashing:

Crashing involves completing activities more quickly by adding resources. For example, if it takes one painter four days to paint a room, you could complete the same job in half the time with two painters. Crashing costs extra money, but doesn't increase risk.

Unavailable Resources

Projects will struggle and possibly fail if you are unable to get essential resources. Consider the following options if you run into this obstacle:

- Rethink the project scope. Perhaps you can reshape the project to fit the resources you have.
- Look for other ways to obtain needed resources. You may be able to find alternate providers. Find
- an alternative solution. There may be another way to achieve your goal that requires a different set of resources.
- Demand compliance. This may require support from senior leadership or your legal department.
- Put the project on hold or close it down. You may need to delay the project until resources become available, or you may realize that it is not practical to move forward.

Quality



- Don't rush quality checks to meet deadlines.
- Determine quality benchmarks in the planning phase.
- Inspect deliverables using the most appropriate tools.
- Accept or reject deliverables based on planned measures.

User Acceptance Testing (UAT)

UAT is used during IT projects to give end users with knowledge of business processes the opportunity to test the system and ensure it is ready for use.

Key Activities

- Test script creation: Determine which scenarios need to be tested.
- Test script execution: Test the scenarios and document what happens.
- Issue tracking: Identify issues that might have been missing during production.
- Final feedback collection: Share identified gaps and issues with the project team.

Benefits of UAT

- Identifies gaps and usability issues before go-live.
- Confirms readiness for go-live by focusing on real world usage.
- Boosts user confidence and buy-in because end users get to see the software in action.
- Allows participants to gain in-depth understanding and early training, allowing for a smoother transition and reduced reliance on support teams at go-live.

Common Challenges

- Time constraints between IT development and go-live.
- Balancing day-to-day job responsibilities with testing.
- Identifying realistic test cases and scenarios.

User Story: Describes a user, the feature they need to use, and how it helps them achieves their goal.

Stage 5:

Closing down and evaluating the project includes:Archiving documents related to the project,

- Archiving documents related to the pro
- Closing and Evaluating Capturing lessons learned, and
 - Celebrating the project's completion.

Lessons Learned

Documenting lessons learned gives everyone a chance to reflect on what they've accomplished, what went well, and how the outcome might have been improved. These discussions should be used to improve future projects. The following questions can help spark your team's discussion:

UAT: Testing to validate that the system works for end users.

Test Case: A set of executable

instructions for achieving a goal.

- Did we achieve our project goal? Meet our objectives?
- What did we do well? What could we have done better? Were any unnecessary steps included?
- Were there any problems we could have avoided? How? Did we allow enough time?
- Were all the deadlines and milestones achieved?
- Were all the necessary steps included in the plan?

- Were the right people involved?

Wrapping Things Up

- Ensure there are no remaining administrative tasks to be completed, including storing project documents and artifacts.
- Make a formal announcement of the project's completion to all involved.
- Thank everyone for their participation.
- Hold a celebration to acknowledge the team's success. Reflect on what the team accomplished. Even if the project didn't deliver on all its goals, highlight the effort that people made and the goals they did achieve.
- Help team members move on to something else, if appropriate. This is particularly important when people have been devoting all or most of their time to the project.

Putting It All Together

Imagine that have been asked to create a set of best practices for a coworker who is about to manage a project for the first time. Share some things you've learned that could help your coworker.



Best Practices

- Define the desired outcome.
- Explore options for achieving it.
- Identify stakeholders.
- Assemble the right team.
- Communicate often.
- Develop a detailed project plan.
- Hold a launch meeting.
- Monitor the project carefully.
- · Let everyone know the project is completed.
- Thank team members.
- Collect lessons learned.



Test Your Knowledge

What ar	re the five stages of a	project?	
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Which is the definition of a project?

A: Any activity that involves more than three people.

- B: A task or activity that is done for two months or more.
- C: A temporary endeavor undertaken to create a unique product, service, or result.
- D: Any program that affects an entire organization.

Which is a common reason that projects fail?

- A: Lack of careful planning & underestimation.
- B: Too many people on the project team.
- C: Project scope is too ambitious.
- D: Not everyone thinks it's a good idea.

Define stakeholders

An effective project team includes:

- A: The people who initiated the project.
- B: People with a variety of skills and perspectives.
- C: Managers and executives.
- D: People who have plenty of free time.

When creating a project schedule, it's better to overestimate than underestimate the time needed for a task or activity.

A: True

B: False

List one purpose of a project launch:

"Closing" a project refers to submitting a final report to management, turning off the lights and going home.

- A: True
- B: False

Which is a question to ask when evaluating a project?

- A: What would we have done if we'd had unlimited time and resources?
- B: What have we learned that can help us improve future projects?
- C: How can we make sure that everyone in the organization knows how great we are?
- D: Which people should get credit for participating in this project?

PROJECT MANAGEMENT SKILLS ASSESSMENT

Rate yourself on a scale from 1 (low) to 4 (high) to assess your project management skills. Total your ratings and then review your results on the table below.

Statement		Rat	ting	
I have excellent organizational skills.	1	2	3	4
I communicate ideas and information clearly.	1	2	3	4
I can collaborate well with others.	1	2	3	4
I am able to respond to change quickly and effectively.	1	2	3	4
I am skilled at delegating work.	1	2	3	4
When making decisions, I seek out and consider other people's ideas and perspectives.	1	2	3	4
I know how to motivate others.	1	2	3	4
I am able to resolve conflicts well.	1	2	3	4
I am able to help others set priorities and manage their time.	1	2	3	4
I enjoy solving puzzles and tackling challenges.	1	2	3	4
Total by adding your score in each row together:				

RESULTS

Total Score	Interpretation
10–20	You may have difficulty managing projects. Consider volunteering as a team member on a project to develop your project management skills.
21-30	You have many skills that could help you manage projects well but could use some development in a few places. Consider taking courses in project management.
31-40	You have strong project management skills! Consider taking on roles leading projects to develop your expertise.

Additional resources and educational materials can be found at the Project Management Institute's website at <u>www.pmi.org</u> and <u>www.projectmanagement.com</u>.