

SOFTWARE PROJECT MANAGEMENT

THE PROJECT MANAGEMENT PROCESS: THE PHASES

Project management process is an administration process for the planning and control of the services or the implementation of a project

This process begins after the approval by the customer, is based on the contract, and is targeted on the initial values of the process and the general management of a project

The project management process requires a specific configuration that contains

- the project management documentation
- project plans
- project management methods
- information exchange (individual interviews, project meetings, project workshops etc.)
- resources for the project planning and project implementation

The following aspects should be performed during the project management process:

- project introduction
- project planning
- project realization
- project control
- analysis and assessment of the project relevance

The results of one of these processes are:

- delivery of the project product
- achievement of the project objectives
- documentation of the learning processes

The phases of a software project depends on the software methodology used to develop your final delivery

There are by the way common definitions and layouts that have been documented and assumed to define a typical software project blueprint

As any other macro activity in an organization, project management is also a process

A process is composed of steps and phases which are sequentially distributed on the time and mutually interconnected or affected

Projects big and small have a lot of moving parts
There's so much to coordinate and track to get from Point A to Point B and execute a successful project
That's why projects are broken down into smaller, more digestible pieces, also known as project phases
Project phases allow you to take your project and organize it so that you can wrap your mind around it and make progress

Phases, or stages, are very important for project managers
Breaking down a project into phases ensure that the deliverables produced at the end of each phase meet their purpose
project team members have also the right information and mindset to properly be prepared for the next phase

You identify the required deliverables for each phase from the Work Breakdown Structure (WBS)

The WBS is the results of breaking down phases into sub phases and then down to activities and so (creating a hierarchy)

The WBS is drafted as part of your preparation activities, and then validated by the rest of the project team

At the end of each phase, someone signs off on the deliverables from that phase

In your preparation phase, think through who needs to approve each deliverable

Approvers may include the project board, project sponsor, or key stakeholders

Once the deliverables are approved, the phase is completed, and the project team can pass through the "gate" to the next phase

Therefore the term "stage/gate" is used so often in project management

Usually we use milestones to identify gates

The exact phases, and the order in which they're completed, may vary slightly, depending on what you need to achieve with your project

The phases are as follows:

- *Project strategy and business case*
- *Preparation*
- *Design*
- *Development and testing*
- *Training and business readiness*
- *Support and benefits realization*
- *Project close*

Let's explore each phase in more detail

Initiation: Project Strategy and Business Case

In this phase, you define the overall project business requirement, and propose the approach or methodology that you want to use to address it
The gate at the end of this phase is the approval of your high-level project proposal and of the business case that validates the approach you want to use
You must also show that you can achieve the project's goal within the required timelines and budget
Make sure that you review the business case at the end of each project phase to ensure that it's still valid
If anything has changed, revise it as needed

Initiation: Project
Strategy and Business
Case

Preparation: Project
planning

Here, you work with key stakeholders and project team members who have already been identified to establish and start the project:

- Complete a high-level Work Breakdown Structure
- Determine the project's high-level plan at the milestone level
- Identify and recruit project members
- Produce the Project Initiation Document
- Select third parties to use in the early project phases
- Put actions in place to secure key resources

Initiation: Project
Strategy and Business
Case

Preparation: Project
planning

Design: Low and High
Level design

In this phase you start the work involved with creating the project's deliverables, using the project strategy, business case, and Project Initiation Document as your starting point. Then work with relevant stakeholders to develop the designs of the main deliverables.

In larger projects, you may use business analysts to help you with this.

You probably have a project board or project sponsor who is responsible for signing off the overall design, but make sure you also get input from other stakeholders as well.

Initiation: Project
Strategy and Business
Case

Preparation: Project
planning

Design: Low and High
Level design

This helps build business ownership of the project deliverables

If changes to processes are required, use a Flow Chart or Swim Lane Diagram to create a detailed map of how things will work

At this stage, you must do everything you can to think through and deal with project issues before you start to build project deliverables – problems are almost always easier and cheaper to fix at design stage than they are once the detailed work of implementation has started

Initiation: Project
Strategy and Business
Case

Preparation: Project
planning

Design: Low and High
Level design

Select stakeholders carefully for the detailed design phase
A good detailed design is more likely to lead to a good project deliverable

If the detailed design is poor, the project deliverables are much less likely to meet requirements!

For projects that have significant technical risks and uncertainties, consider including a feasibility or proof-of-concept phase

This increases your certainty that what you're planning (probably at great expense) will work, while allowing you to cancel the project at minimum cost if the proof-of-concept fails

Initiation: Project
Strategy and Business
Case

Preparation: Project
planning

Design: Low and High
Level design

**Development and
Testing:** coding,
verification and
validation

With all of the planning and designing complete, the project team can now start to develop and build the components of the project output

As part of this phase, you need to test these components thoroughly to confirm that they work as they should

Initiation: Project Strategy and Business Case

Preparation: Project planning

Design: Low and High Level design

Development and Testing: coding, verification and validation

Deployment: Training and Business Readiness (Go Live)

This stage is all about preparing for the project launch or "go live"
Do the following things during this phase:

- Train users
- Put in place ongoing support
- Transfer data to new systems
- Identify what's required for the project to be effective from the launch date, and ensure that you adequately address this
- Do the cut over
- Support your customer for some time after the go live

Initiation: Project Strategy and Business Case

Preparation: Project planning

Design: Low and High Level design

Development and Testing: coding, verification and validation

Deployment: Training and Business Readiness (Go Live)

Handover: result implementation

In some cases there may be an additional phase where the development team hand over the results to the maintenance team or when you need to roll out the process in the organization

Initiation: Project Strategy and Business Case

Preparation: Project planning

Design: Low and High Level design

Development and Testing: coding, verification and validation

Deployment: Training and Business Readiness (Go Live)

Project Closure: Release the project

Closing a project is not the most exciting part of the project lifecycle, but, if you don't do it properly, you may obstruct the ongoing delivery of benefits to the organization

Initiation: Project Strategy and Business Case

Preparation: Project planning

Design: Low and High Level design

Development and Testing: coding, verification and validation

Deployment: Training and Business Readiness (Go Live)

Project Closure: Release the project

Make sure that you do the following:

- Complete and store documentation
- Carry out a Post-Implementation Review and collect the results of the analysis in a lessons learned report, so that the experience can be used in future projects
- Conduct the Handover to support team or specific departments to do the maintenance or support the customer during the execution