

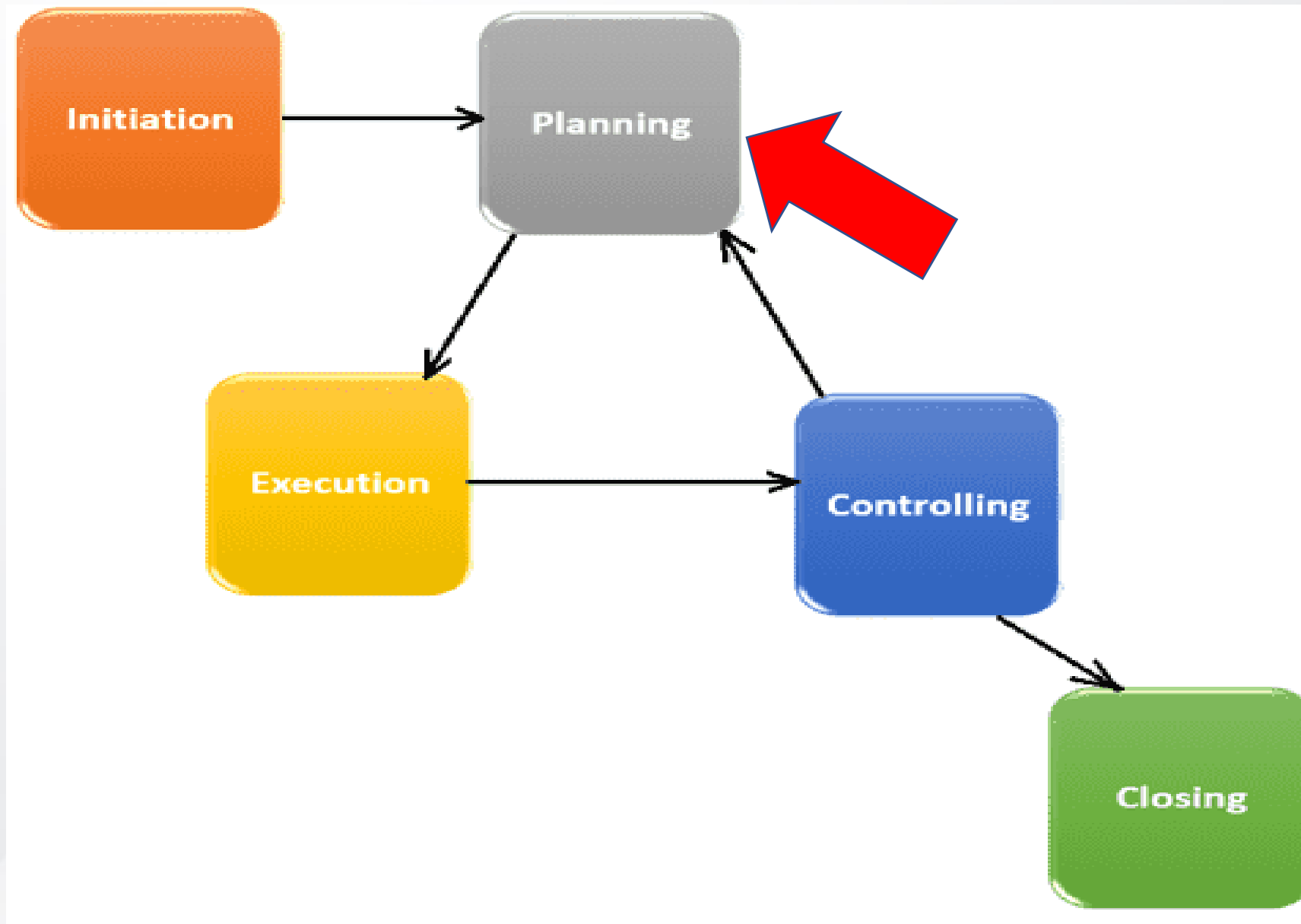
# Project Planning

## Lecture 7

PMG202

Project Planning- The Project Schedule, and budget

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## 1) Project Planning



## Project Planning

Once a project is selected for execution, the structural project planning approach prescribes that the project get planned in detail prior to the actual start of the project.

**Project planning consists of 4 main stages:**

1. Risk Management
2. Quality Management
3. Human Resource Management
4. The Project Schedule, and budget

## The Project Schedule



## What is a Project Schedule?

- We can't expect a ragingly successful Project without a great Schedule.
- A list of required tasks along with the time and the Resources needed will help you arrive at your destination as planned.
- Project Scheduling is an important skill for any Project Manager, even if you think it's a simple Project.

## What is a Project Schedule?

### The Project Schedule:

It is a **dynamic document** that is created **during initial the Planning stage**.

The approved Project Schedule **acts as a baseline to work to**, but it is maintained and **updated throughout the Project** as things change.

**outlines the time needed for the required tasks**

the **start** and **end** date of all project tasks

**establishes milestones to be met to complete the project on time**

**how** the tasks relate to each other

**allocates resources across tasks**

**which team** members or other resources are responsible for delivery

## Types of Project Schedule

## Types of Project Schedule

### The 3 main types of Project Schedule

#### 1- Master Project Schedule:

It's a **summary level Schedule** that highlights the **key tasks** and their **estimated duration**.

This is useful as a **high-level overview document** for **Senior Management** or **External Stakeholders** who don't need the detail.

#### 2- Milestone Schedule:

It tracks **major Milestones** but not every task or deliverable.

It's great for **reporting status** and **helping Teams** see their progress at a glance.

#### 3- Detailed Project Schedule:

- This is a **more operational level schedule** that **tracks every Project activity**.
- It's designed for the **Project Team** and **Managers** to keep track of every element of the Project.

## **Benefits of effective Project Scheduling**



## Benefits of effective Project Scheduling

- Provides a clear **roadmap** to everyone at the beginning of the Project.
- It guides the **Project Team as they deliver** the Project.
- It **communicates progress** to the Team, Management, and other Stakeholders.
- Done well, it makes the entire Project **run more smoothly** and helps you finish up on time and on budget.
- Serves as an **early warning system** for potential Project issues.
- **Reserves your Resources** for when you need them.

## Project scheduling tools and techniques

## Project scheduling tools and techniques

### Task List

The most basic form of Project Schedule, this is a list of activities with deadlines that must be completed to finish a Project.

Project RedFlag Phase 3

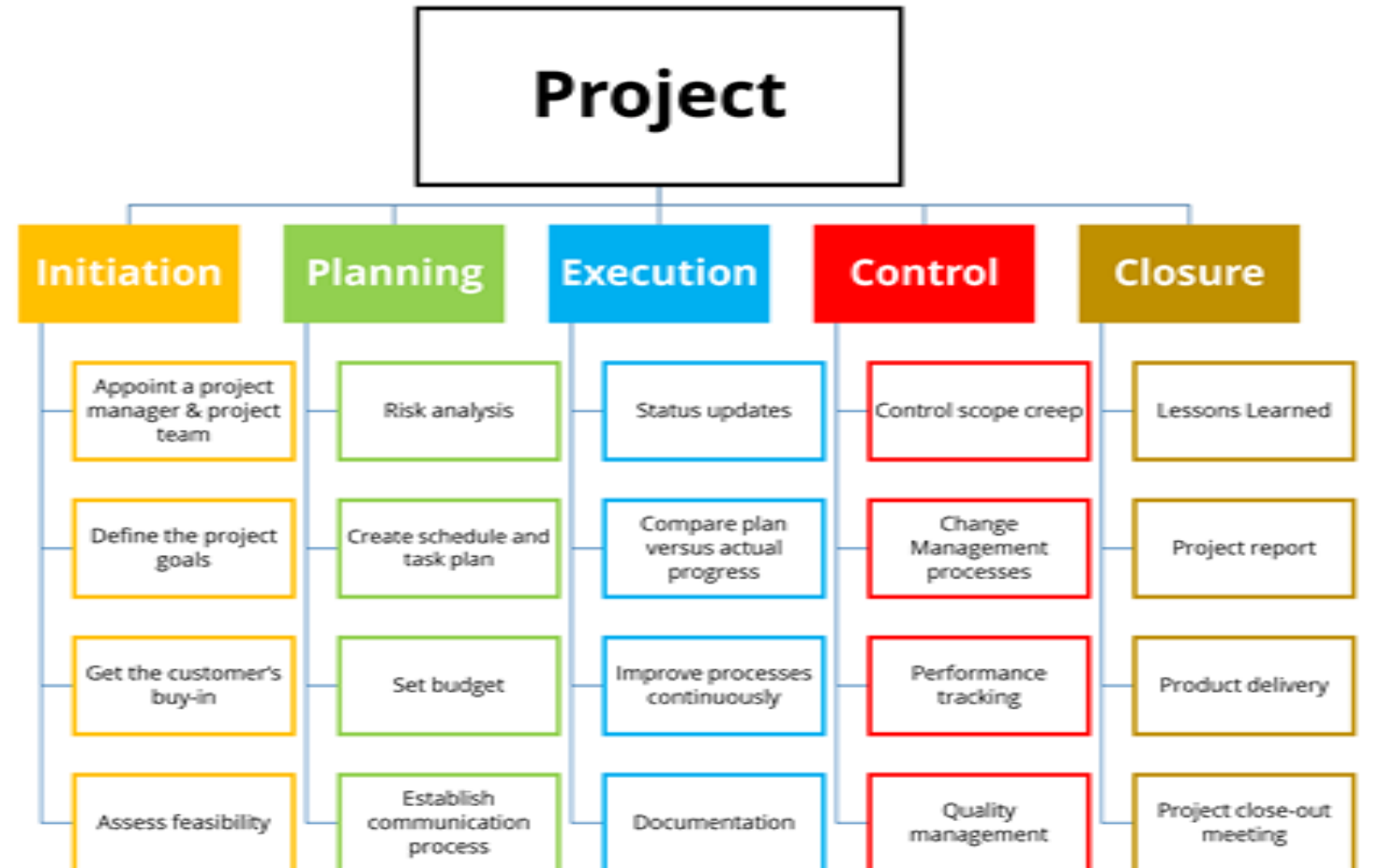
| #  | Reg date   | Description                                                            | Responsible | Due date   | Status      | Additional information                                      |
|----|------------|------------------------------------------------------------------------|-------------|------------|-------------|-------------------------------------------------------------|
| 1  | 03.07.2014 | Identify Project Stakeholders and send out memo to entire project team | John        | 05.07.2014 | Done        |                                                             |
| 2  | 03.09.2014 | Conduct Stakeholder Analysis workshop with XXX                         | Susan       | 23.09.2014 | In process  | We should use the great template from projecttemplates.guru |
| 3  | 03.04.2014 | Generate Stakeholder Register                                          | Kevin       | 23.04.2014 | Cancelled   |                                                             |
| 4  | 03.01.2015 | Specify Deliverables and Acceptance Criteria                           | John        | 03.02.2015 | Not started |                                                             |
| 5  | 04.09.2014 | Identify Project Exclusions                                            | Helen       | 08.09.2014 | On hold     | See exclusions in projecx XXX.                              |
| 6  | 04.09.2014 | Plan Risk Management                                                   | John        | 01.01.2015 | Not started |                                                             |
| 7  | 04.09.2014 | Identify Project Risks                                                 | John        | 01.01.2015 | Not started |                                                             |
| 8  | 04.09.2014 | Perform Qualitative Risk Analysis                                      | John        | 01.01.2015 | Not started |                                                             |
| 9  | 04.09.2014 | Perform Quantitative Risk Analysis                                     | TBD         | 01.01.2015 | Not started |                                                             |
| 10 | 04.09.2014 | Plan Risk Responses                                                    | TBD         | 01.01.2015 | In process  |                                                             |
| 11 | 03.07.2014 | Identify Project Stakeholders and send out memo to entire project team | John        | 05.07.2014 | Done        |                                                             |
| 12 | 03.09.2014 | Conduct Stakeholder Analysis workshop with XXX                         | Susan       | 23.09.2014 | In process  | We should use the great template from projecttemplates.guru |
| 13 | 03.04.2014 | Generate Stakeholder Register                                          | Kevin       | 23.04.2014 | Cancelled   |                                                             |
| 14 | 03.01.2015 | Specify Deliverables and Acceptance Criteria                           | John        | 03.02.2015 | Not started |                                                             |
| 15 | 04.09.2014 | Identify Project Exclusions                                            | Helen       | 08.09.2014 | On hold     | See exclusions in projecx XXX.                              |
| 16 | 04.09.2014 | Plan Risk Management                                                   | John        | 01.01.2015 | Not started |                                                             |
| 17 | 04.09.2014 | Identify Project Risks                                                 | John        | 01.01.2015 | Not started |                                                             |
| 18 | 04.09.2014 | Perform Qualitative Risk Analysis                                      | John        | 01.01.2015 | Not started |                                                             |
| 19 | 04.09.2014 | Perform Quantitative Risk Analysis                                     | TBD         | 01.01.2015 | Not started |                                                             |

## Project scheduling tools and techniques

### Work Breakdown Structure

A graphic that details the key deliverables by presenting key Milestones within a hierarchy.

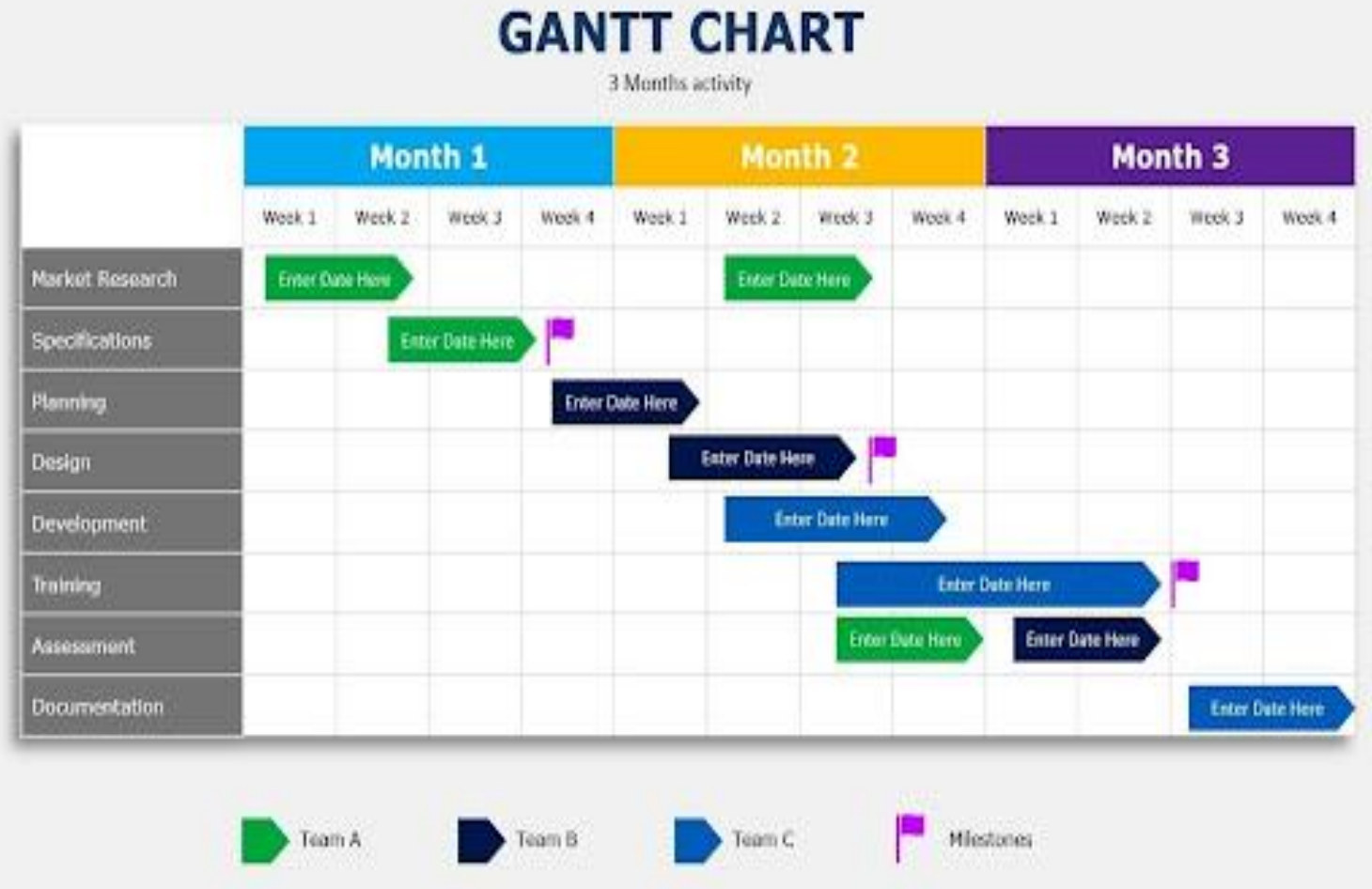
It simplifies Projects into smaller, more manageable groups. It also provides the necessary framework for detailed cost estimating and control along with providing guidance for Schedule development and control.



## Project scheduling tools and techniques

### GANTT Chart

The **most common form** of Project Schedule is the **GANTT Chart**. It's a **horizontal bar chart** that tracks activities over time. **Depending on resource allocation and task relationships**, the **bars** might be running **in parallel** or **sequentially**. It can be produced with **differing levels of detail depending on the needs of the target audience**.



## Getting started with your Project Schedule



## Getting started with your Project Schedule

- Scheduling is **part of the planning process**.
- When you are first planning your project, ask yourself these three key questions.

WHAT

What needs to be done?

WHEN

When will it happen?

WHO

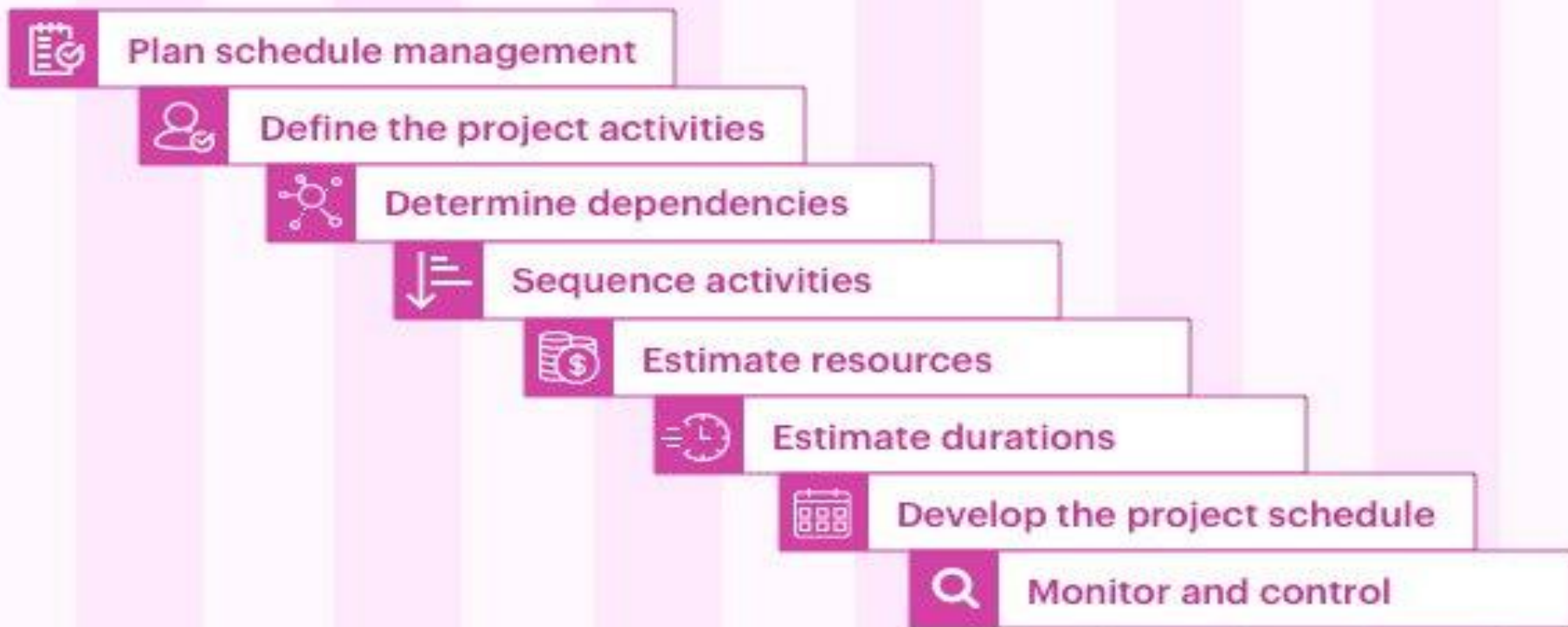
Who will do it?

## Getting started with your Project Schedule

### Steps to effectively schedule your projects are to:

1. **Confirm the project activities:** make sure they cover your Project Scope
2. **Sequence activities:** determine which order the tasks need to be completed
3. **Determine dependencies:** identify tasks that rely on each other
4. **Determine durations:** accurately estimate how long each task will take
5. **Establish milestones:** set the key dates that need to be met
6. **Allocate resources:** internal staff, contractors, tools, and workspaces
7. **Assess Risks:** and decide how it will be dealt with in your schedule
8. **Monitor and control:** decide how you will monitor, control and report on any changes to the schedule.

# The 8 Steps Of The Project Scheduling Process



## 2) Project Budget



## Project Budget

- A **Project Budget** is a plan that includes every detail on how much money will be spent on a project, its needs and resources, for what, by whom, and when.
- It's a dynamic document, continuously monitored, reviewed, and updated throughout the project.

## The components of a Project Budget

## The components of a Project Budget

- Project Budgets contain all the costs associated with the project.
- It generally includes:
  - Labor costs: employee wages, benefits, payroll taxes, and overheads.
  - Material procurement costs: goods, services, equipment, and supplies needed for the project that come from external providers.
  - Resources cost per quantity;
  - Expenses (food, travel, supplies);
  - A fund for emergencies;
  - Cash flows.



Under each of these categories, the costs can usually be separated into two broad categories:

- **Fixed costs:** these are set for the project and will not change. For example, Rent, advertising, and administrative costs.
- **Variable costs:** these change based on activity. For example, if you have a subcontractor working by the hour on your project and it goes over time, the cost goes up. Variable costs need the most monitoring.

## The purpose of a project budget

## The purpose of a project budget

### The Project Budget is designed to:

- Aid in **the decision-making** process. This could be deciding whether the project **goes ahead** or choosing how much to **invest** in different activities within the project.
- Communicate to **stakeholders how much money is needed** and when it's needed.
- Give the project **manager** a baseline to help them **work out if the project is spending along its desired path**.

## **The benefits of effective project budgeting**

## The benefits of effective project budgeting

- Helps to ensure the project is completed within the constraints of the available financial resources;
- Helps to identify and manage risk associated with the project's finance;
- Facilitates the communication between the project manager, team members, and stakeholders;
- Helps to make better decisions;
- Allows better monitoring and control of the project's financial performance.

## Steps for successful project budget



## Steps for successful project budget

- 1. Refer to your Project Scope :** the Project Scope contains the goals, deliverables, tasks, and deadlines for the project.
- 2. Define the Resources you need:** list all the people and items that you need to complete the project within deadlines.
- 3. Understand the Resource Rate:** people who will be working on the project will work at a specific rate, with more experienced people costing more, but often able to complete tasks faster and to a higher standard. Materials for the project get charged at a rate too

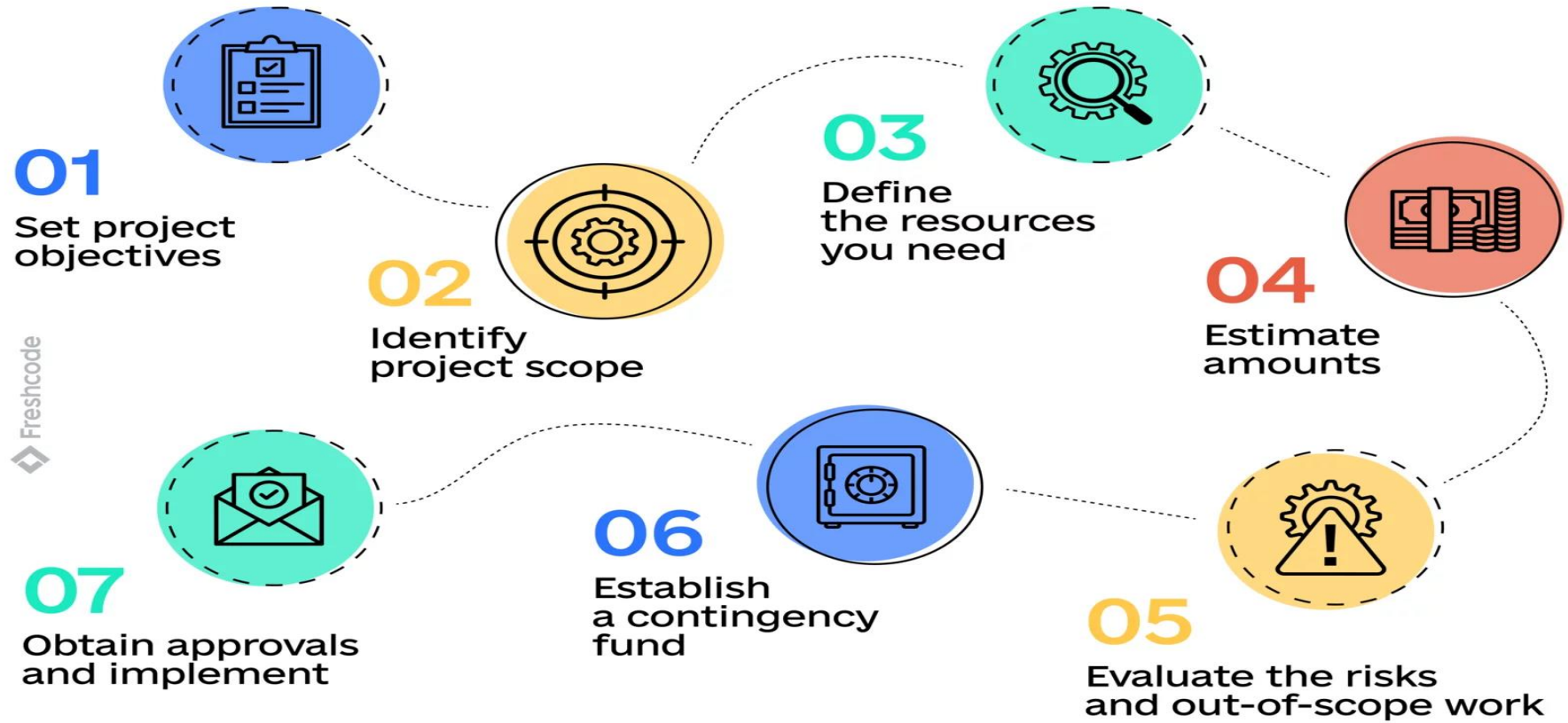
## Steps for successful project budget

4- Estimate **risk and out of scope work**

5- Establish a **contingency fund**: Having an emergency fund means there's a reserve for when costs increase.

6- Build the **Budget**: compile the estimates into your project management software or budget template.

7- **Obtain approval**: When you're presenting your budget to management or stakeholders, you want it to be right. You'll also need to be able to confidently justify the thinking behind the numbers.



# Project Budget Excel Template

|                     |                   |                   |            |
|---------------------|-------------------|-------------------|------------|
| Name of the Company | ABC CO. PVT. LTD. | Start Date        | 12-11-2017 |
| Name of the Project | ABC Mart          | End Date          | 12-09-2019 |
| Project Head        | Mr. PQR           | Estimated Days    | 700        |
| Budgeted Cost       | \$ 14,98,000      | Actual Days       | 701        |
| Actual Cost         | \$ 16,05,800      | Under/(Over Days) | (1.00)     |
| Under/(Over) Cost   | \$ -1.07,800      |                   |            |

## Project Budget Estimator

| Work-breakdown Structure |               | LABOUR    |        |            |            | MATERIAL  |        |           |           | Fixed Cost | Total Cost |           | Under/(Over) |
|--------------------------|---------------|-----------|--------|------------|------------|-----------|--------|-----------|-----------|------------|------------|-----------|--------------|
| WBS                      | Task Category | Est. Time | Rate   | Est. Wages | Act. Wages | Est. Unit | Rate   | Est. Mat. | Act. Mat. | Amount     | Estimated  | Actual    | Amount       |
| 1                        | Primary       | 200       | \$ 200 | \$ 40,000  | \$ 38,000  | 100       | \$ 100 | \$ 10,000 | \$ 9,700  | \$ 3,500   | \$ 53,500  | \$ 51,200 | \$ 2,300     |
| 1.1                      | Secondary     | 200       | \$ 200 | \$ 40,000  | \$ 45,000  | 100       | \$ 100 | \$ 10,000 | \$ 15,000 | \$ 3,500   | \$ 53,500  | \$ 63,500 | \$ -10,000   |
| 2                        | Primary       | 200       | \$ 200 | \$ 40,000  | \$ 38,000  | 100       | \$ 100 | \$ 10,000 | \$ 9,700  | \$ 3,500   | \$ 53,500  | \$ 51,200 | \$ 2,300     |
| 2.1                      | Secondary     | 200       | \$ 200 | \$ 40,000  | \$ 45,000  | 100       | \$ 100 | \$ 10,000 | \$ 15,000 | \$ 3,500   | \$ 53,500  | \$ 63,500 | \$ -10,000   |
| 3                        | Primary       | 200       | \$ 200 | \$ 40,000  | \$ 38,000  | 100       | \$ 100 | \$ 10,000 | \$ 9,700  | \$ 3,500   | \$ 53,500  | \$ 51,200 | \$ 2,300     |
| 3.1                      | Secondary     | 200       | \$ 200 | \$ 40,000  | \$ 45,000  | 100       | \$ 100 | \$ 10,000 | \$ 15,000 | \$ 3,500   | \$ 53,500  | \$ 63,500 | \$ -10,000   |
| 3.2                      | Secondary     | 200       | \$ 200 | \$ 40,000  | \$ 38,000  | 100       | \$ 100 | \$ 10,000 | \$ 9,700  | \$ 3,500   | \$ 53,500  | \$ 51,200 | \$ 2,300     |
| 3.3                      | Secondary     | 200       | \$ 200 | \$ 40,000  | \$ 45,000  | 100       | \$ 100 | \$ 10,000 | \$ 15,000 | \$ 3,500   | \$ 53,500  | \$ 63,500 | \$ -10,000   |
| 4                        | Primary       | 200       | \$ 200 | \$ 40,000  | \$ 38,000  | 100       | \$ 100 | \$ 10,000 | \$ 9,700  | \$ 3,500   | \$ 53,500  | \$ 51,200 | \$ 2,300     |
| 4.1                      | Secondary     | 200       | \$ 200 | \$ 40,000  | \$ 45,000  | 100       | \$ 100 | \$ 10,000 | \$ 15,000 | \$ 3,500   | \$ 53,500  | \$ 63,500 | \$ -10,000   |
| 4.2                      | Secondary     | 200       | \$ 200 | \$ 40,000  | \$ 38,000  | 100       | \$ 100 | \$ 10,000 | \$ 9,700  | \$ 3,500   | \$ 53,500  | \$ 51,200 | \$ 2,300     |
| 4.3                      | Secondary     | 200       | \$ 200 | \$ 40,000  | \$ 45,000  | 100       | \$ 100 | \$ 10,000 | \$ 15,000 | \$ 3,500   | \$ 53,500  | \$ 63,500 | \$ -10,000   |
| 5                        | Primary       | 200       | \$ 200 | \$ 40,000  | \$ 38,000  | 100       | \$ 100 | \$ 10,000 | \$ 9,700  | \$ 3,500   | \$ 53,500  | \$ 51,200 | \$ 2,300     |
| 5.1                      | Secondary     | 200       | \$ 200 | \$ 40,000  | \$ 45,000  | 100       | \$ 100 | \$ 10,000 | \$ 15,000 | \$ 3,500   | \$ 53,500  | \$ 63,500 | \$ -10,000   |
| 6                        | Primary       | 200       | \$ 200 | \$ 40,000  | \$ 38,000  | 100       | \$ 100 | \$ 10,000 | \$ 9,700  | \$ 3,500   | \$ 53,500  | \$ 51,200 | \$ 2,300     |



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## Summary

### **The Project Schedule**

- Definition
- Types
- Benefits
- Tools, and techniques
- Steps

## Summary

### **Project Budget**

- Definition
- Components
- Purpose
- Benefits
- Steps



## Questions

**Which of the following types of Projects Schedule?**

All answers are correct.

Master Project Schedule

Milestone Project Schedule

Detailed Project Schedule

**A list of activities with deadlines is-----**

Task list

Work Breakdown structure

GANTT Chart

All answers are incorrect

## Questions

**A graphic that details the deliverables by presenting key milestones within a hierarchy**

Work Breakdown structure

Task list

GANTT Chart

All answers are incorrect

**The most common form of project schedule is -----**

The GANTT Chart

Work Breakdown structure

Task list

All answers are incorrect

## Questions

-----is a plan that includes every detail on how much money will be spent on a project.

Project Budget

Project Schedule

Project Risk

Project Management

**Rent is-----**

Fixed cost

Variable cost

Marginal cost

Total cost

## Questions

----- contains the goals, deliverables, tasks, and deadlines for the project

Project Scope

Resources you need.

the Resource Rate

Approval

**In which of the following project phases is the project schedule developed?**

Planning

Conceptual

Implementation

Design

## Questions

-----is a summary level schedule that highlights the key tasks and their estimated duration.

Master Project Schedule

Milestone Project Schedule

Detailed Project Schedule

All answers are correct.

-----is a great for reporting status and helping teams see their progress at a glance.

Milestone Project Schedule

Master Project Schedule

Detailed Project Schedule

All answers are correct.

## Questions

-----is more operational level schedule that tracks every project activity

Detailed Project Schedule

Milestone Project Schedule

Master Project Schedule

All answers are correct.

**Which of the following is/are purpose of a project budget?**

All answers are correct.

Aid in the decision-making process

Communicate to stakeholders how much money is needed.

Give the project manager a baseline to help them work out if the project is spending along its desired path.

## Questions

|                                                                                                |                                                                                                                   |
|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| جدول المشروع هو مستند ديناميكي يتم إنشاؤه في نهاية مرحلة التخطيط .                             | The Project Schedule is a dynamic document that is created at the end of the Planning stage. F                    |
| يعد جدول المشروع الرئيسي رافعاً للإبلاغ عن الحالة ومساعدة الفرق على رؤية تقدمهم في لمحة .      | Master Project Schedule is great for reporting status and helping teams see their progress at a glance. F         |
| الجدول الزمني التفصيلي للمشروع هو جدول مستوى تشغيلي أكثر يتتبع كل نشاط من أنشطة المشروع.       | Detailed Project Schedule is a more operational level schedule that tracks every project activity. T              |
| جدول المشروع الرئيسي هو جدول مستوى ملخص يسلط الضوء على المهام الرئيسية والمدة المقدرة لها.     | Master Project Schedule is a summary level schedule that highlights the key tasks and their estimated duration. T |
| يوفر جدول المشروع خارطة طريق واضحة للجميع في بداية المشروع.                                    | The Project Schedule provides a clear roadmap to everyone at the beginning of the Project. T                      |
| الجدولة جزء من العملية التنفيذية .                                                             | Scheduling is part of the Executive process. F                                                                    |
| قائمة المهام هي قائمة بالأنشطة ذات المواعيد النهائية.                                          | Task list is a list of activities with deadlines. T                                                               |
| مخطط جانت هو رسم بياني يوضح تفاصيل المخرجات من خلال تقديم المعالم الرئيسية في التسلسل الهرمي . | GANTT Chart is a graphic that details the deliverables by presenting key milestones within a hierarchy. F         |
| الشكل الأكثر شيوعاً لجدول المشروع هو هيكل تنظيم العمل .                                        | The most common form of project schedule is Work Breakdown structure. F                                           |
| لا يتم تضمين تكاليف العمالة في ميزانيات المشروع                                                | Labor costs are not included in the Project Budgets. F                                                            |
| تتغير التكاليف المتغيرة بناءً على النشاط.                                                      | Variable costs change based on activity. T                                                                        |
| يتم تعيين التكاليف الثابتة للمشروع ولن تتغير.                                                  | Fixed costs are set for the project and will not change. T                                                        |



# Thank You