

Introduction to Project Management

Lesson 05—Managing Projects Using MS Project 2013



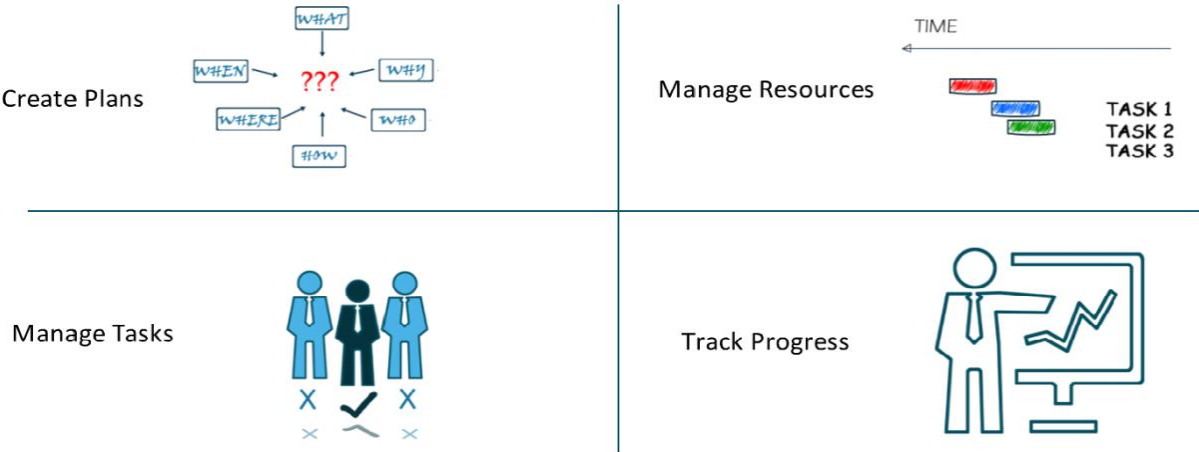
Objectives

After completing this lesson, you will be able to:

- Create a project using Microsoft Project 2013
- Navigate through the different features of Microsoft Project 2013
- Identify Critical Path using MS Project



Microsoft® Project 2013 is an application that enables you to plan and manage projects effectively.



The Project Manager needs to define basic project details at the commencement of a new project.

Start date of a project

Finish date of a project

Project Schedule

Project Calendar

Project Information for 'Software Development'

Start date: Wed 2/19/14

Current date: Fri 3/21/14

Finish date: Tue 3/11/14

Status date: NA

Schedule from: Project Start Date

Calendar: Standard

All tasks: Project Start Date

Standard

All tasks: Project Finish Date

24 Hours

Enterprise Custom Fields

Night Shift

Department:

Standard

Custom Field Name	Value
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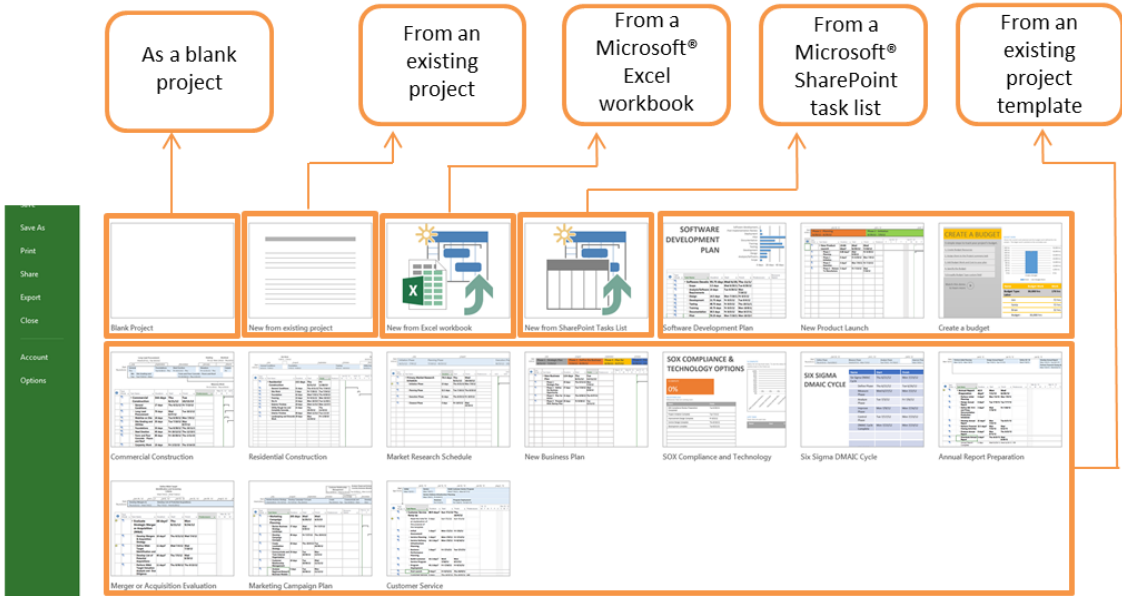
Help

Statistics...

OK

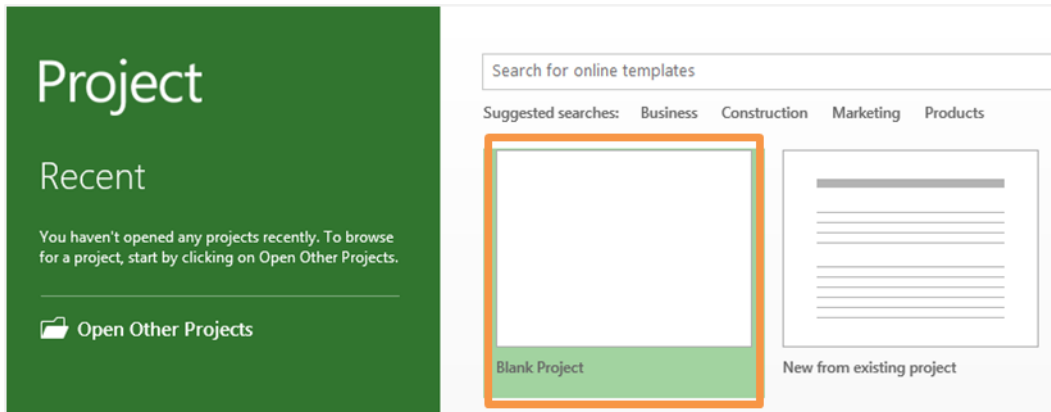
Cancel

There are different methods to create a project in Microsoft® Project 2013.



Create Project from a Blank Project Template

A new project can be initiated in Microsoft® Project 2013 by creating a blank project and then adding project details into it.



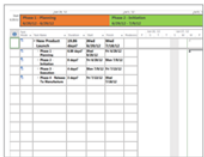
Components of a Blank Project Template

The important components of a Blank Project template are shown here.

The screenshot shows the Microsoft Project software interface with several components labeled on the left side:

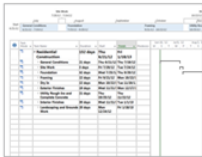
- Quick Access Toolbar:** Located at the top left, containing icons for Save, Undo, and Redo.
- Ribbon:** The main menu area at the top, including tabs like FILE, TASK, RESOURCE, REPORT, PROJECT, VIEW, and FORMAT.
- View:** A vertical label on the left side of the main workspace.
- Task Name and Description:** A label pointing to the first column of the task list.
- Gantt Chart:** A label pointing to the Gantt chart area on the right side of the workspace.
- Zoom:** A label pointing to the zoom slider at the bottom right of the workspace.
- Status Bar:** A label pointing to the bottom status bar, which shows the current task status (e.g., READY, NEW TASKS: MANUALLY SCHEDULED).

Microsoft® Project 2013 has many pre-installed templates that can be used to create a new project.



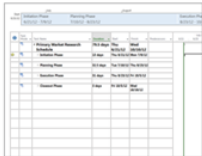
New Product Launch

New Product launch



Residential Construction

Residential Construction



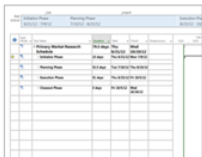
Market Research Schedule

Market Research Schedule



Commercial Construction

Commercial Construction



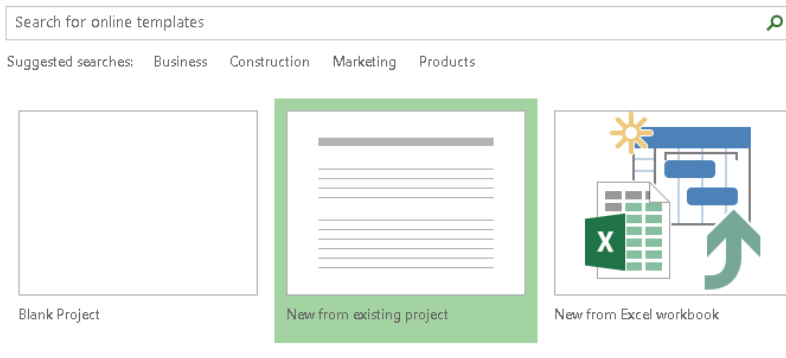
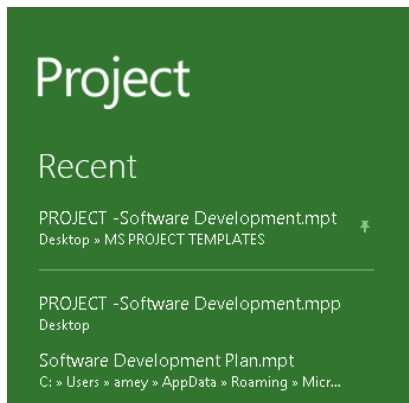
Market Research Schedule

Merger or Acquisition Evaluation

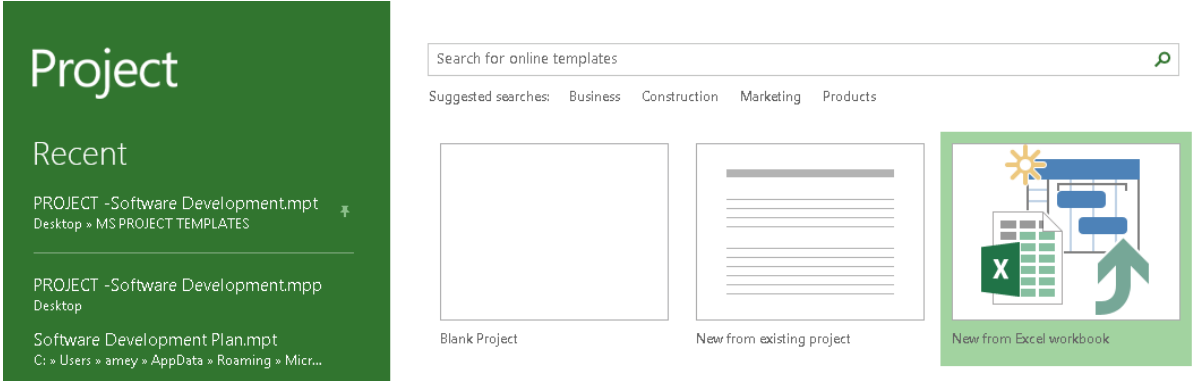
Create Project from an Existing Project

A new project can be created from an existing project.

- A similar project can be used from the previous history to enter the new project details to it.
- When a project is created this way, the existing project acts as the foundation for the new project.

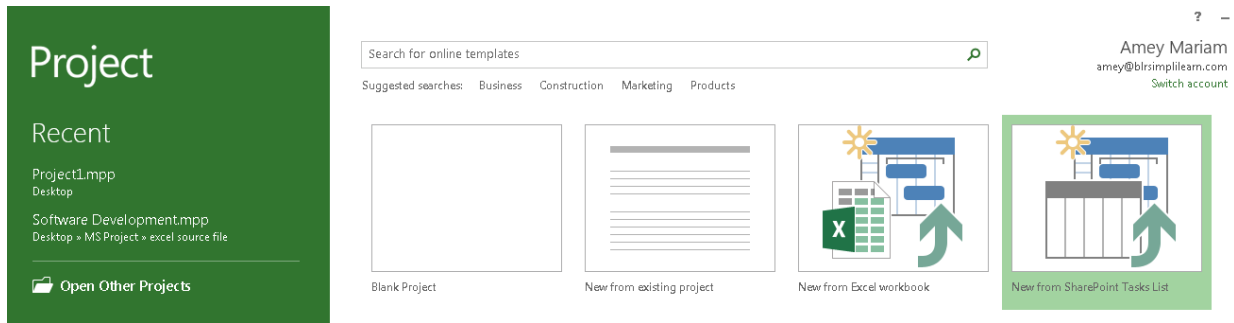


New project can be created from an Excel workbook.



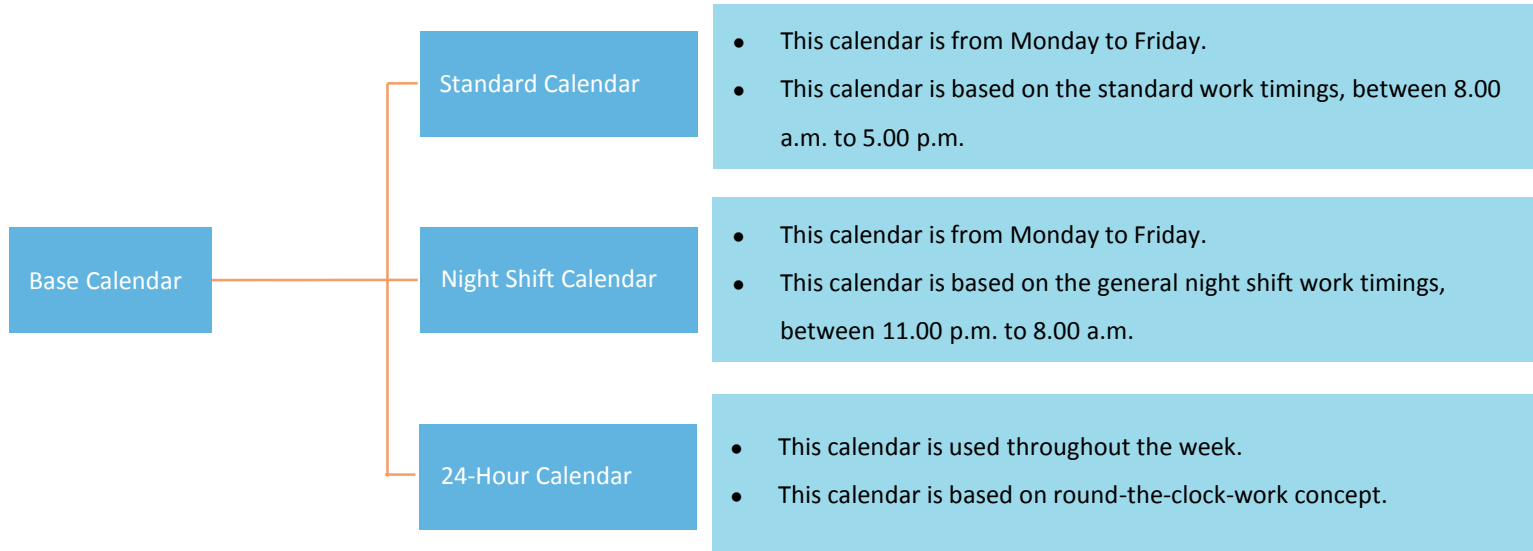
If the development team is using SharePoint for a project, the Project Manager can synchronize the task list from SharePoint without using the Project Web App.

- This will allow the team members to view the project schedule on SharePoint.
- Any updates on SharePoint will be reflected in the Microsoft® Project plan.



Types of Base Calendar

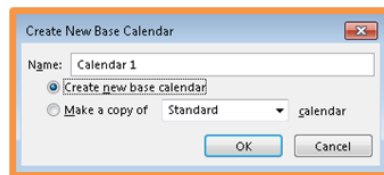
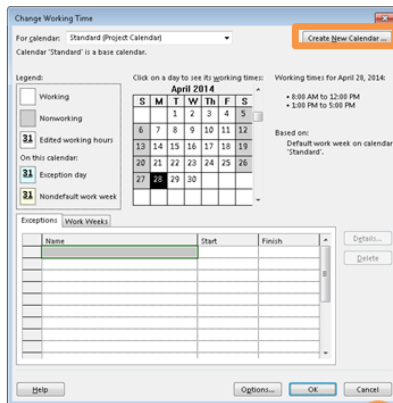
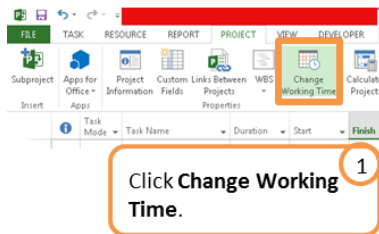
There are three types of base calendar.



Create New Base Calendar

When the project team is spread across geographies, with each region having its own set of working and non-working days, the Project Manager can create a new calendar for each geographical region.

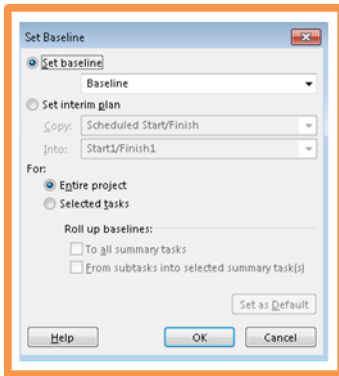
- He can apply these calendars to the resources and tasks.



Create New Base Calendar window is displayed.

The 'Set Baseline' command can be used to compare the status of the project with the original plan.

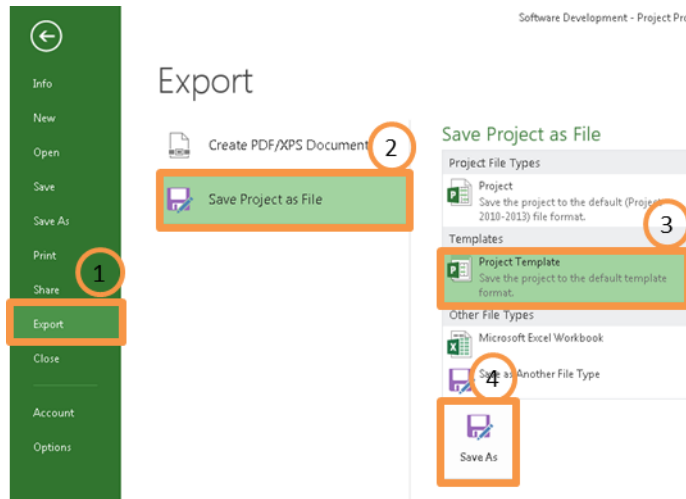
- Baseline records the project plan and the resource allocation.
- Microsoft® Project 2013 permits eleven benchmarks.



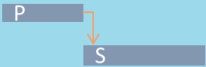



Create a Template from a Completed Project

Microsoft® Project 2013 allows you to save the completed project plans as project templates.

- Strategies from past projects can be shared and can be applied to future projects.



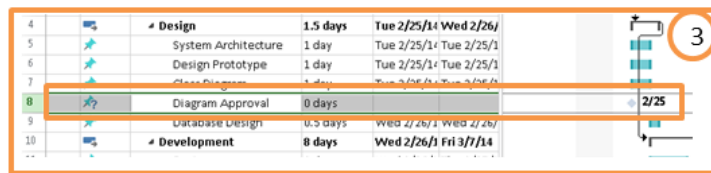
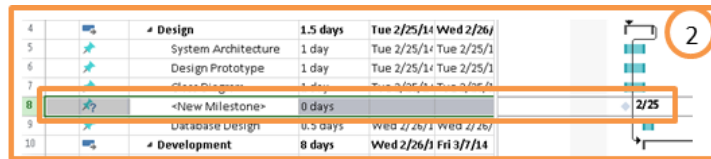
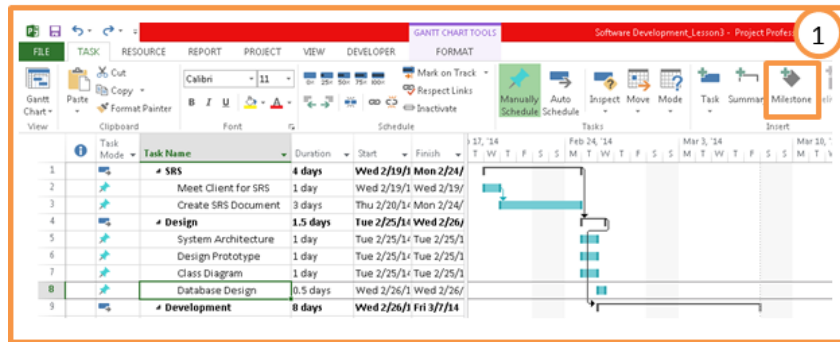
Sometimes the tasks in a project are dependent on other tasks. This dependency can be projected in Microsoft Project 2013 by linking these tasks.

Finish-to-Start		Predecessor task has to finish, for the successor task to start.
Start-to-Start		Predecessor task has to start, for the successor task to start.
Finish-to-Finish		Predecessor task has to finish, for the successor task to finish.
Start-to-Finish		Predecessor task has to start, for the successor task to finish.

Create Project Milestones

Milestones in a Project are the significant events, either reached within the plan or are dependent on the plan.

- Milestones can be created to highlight the critical points of the project.
- Milestones can be recognized in Microsoft® Project 2013 as tasks that have zero duration.



Timeline View

‘Timeline View’ allows a Project Manager to view all the project related information at a glance.

Software Development_Lesson3 - Project Professional

FILE TASK RESOURCE REPORT PROJECT VIEW DEVELOPER FORMAT

Task Views: Network Diagram, Calendar, Gantt Chart, Task, Other Views

Resource Views: Resource Usage, Team Planner, Resource Sheet, Other Views

Highlight: [No Highlight], Filter: [No Filter], Group by: [No Group]

Timescale: Days, Zoom: Entire Project, Selected Tasks

Timeline

Task Mode	Task Name	Duration	Start	Finish
1	SRS	4 days	Wed 2/19/1 Mon 2/24/1	
2	Meet Client for SRS	1 day	Wed 2/19/1 Wed 2/19/1	
3	Create SRS Document	3 days	Thu 2/20/1 Mon 2/24/1	
4	Design	1.5 days	Tue 2/25/1 Wed 2/26/1	
5	System Architecture	1 day	Tue 2/25/1 Tue 2/25/1	

Software Development_Lesson3 - Project Professional

FILE TASK RESOURCE REPORT PROJECT VIEW DEVELOPER FORMAT

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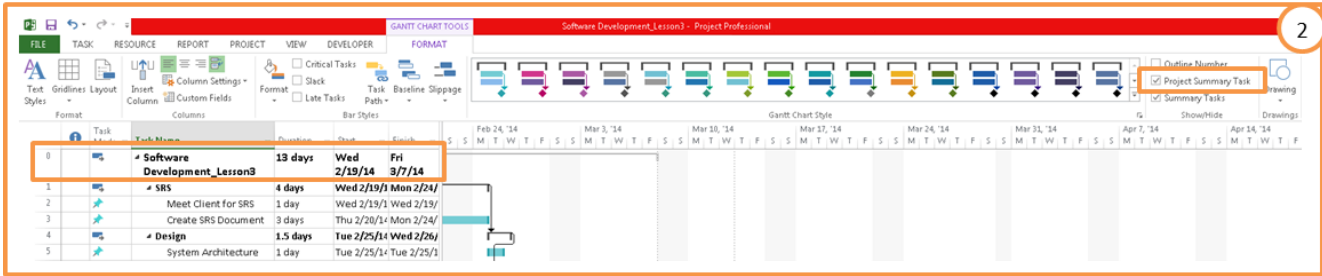
Timeline

Timeline View: Add tasks with dates to the timeline

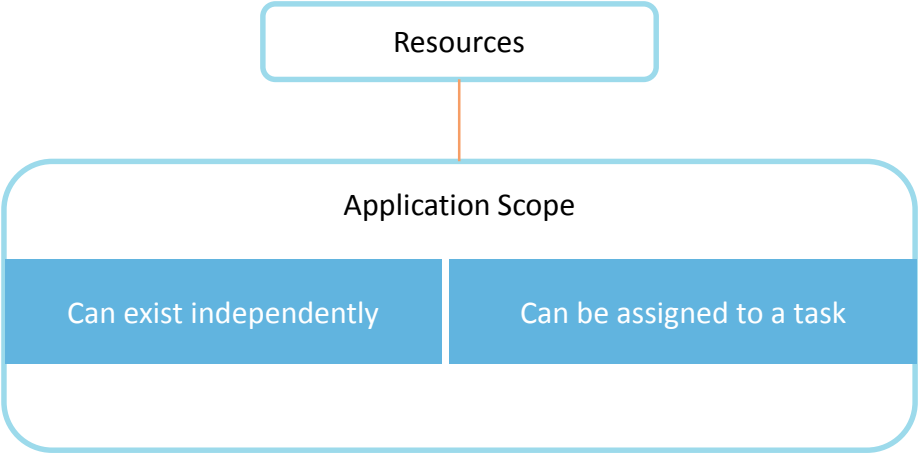
Task Mode	Task Name	Duration	Start	Finish
1	SRS	4 days	Wed 2/19/1 Mon 2/24/1	
2	Meet Client for SRS	1 day	Wed 2/19/1 Wed 2/19/1	
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Project Summary

‘Project Summary’ summarizes the timeline of the entire project. Project summary is automatically created by Microsoft Project 2013, however, it is hidden by default.



Resource has a great impact on the timing and cost of a Project.



Responsibility Matrix

Responsibility Matrix describes the contribution of various roles in carrying out tasks for a project.

Responsibility Matrix						
Task	Responsible Party					
	Project Committee	Client POC	Project Manager	Tech Team	Finance Team	Project Coordinator
Scope Analysis	✓	✓	✓			
Work Breakdown pattern		✓	✓	✓		✓
Costing		✓	✓		✓	
Quality Parameters		✓		✓		✓
New requests		✓	✓		✓	✓
Approval for requests		✓	✓			

Types of Resources

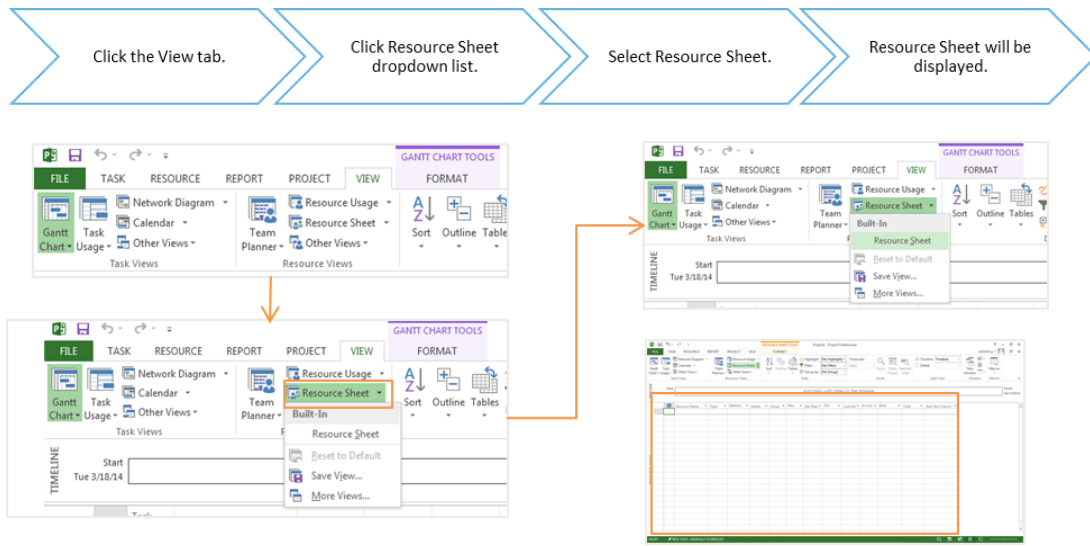
Resources are classified into three types.

Resource Types		
Work Resource Type	Material Resource Type	Cost Resource Type
<ul style="list-style-type: none">• Refers to Team Member/Entire Team/Equipment• Is responsible for completing the tasks• Is measured in unit of time• Can be tracked on availability and cost	<ul style="list-style-type: none">• Refers to the consumables• Can be set up within a project and assign them to a task	<ul style="list-style-type: none">• Identifies the cost associated with a task• Is used when a task has overhead costs

Add Resources

Adding accurate information of resources is one of the most critical steps of project planning.

- Project managers can monitor the cost effectively during the course of the project.
- Resource sheet can be used to add or edit the resources.



Add Resources (contd.)

Important components of a Resource Sheet are shown here.

Indicate the Type of resources

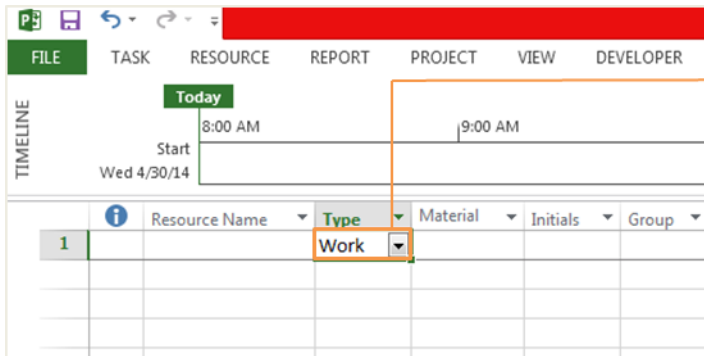
Indicate the units name

Enter the name of the resource group

Allocate the work hours (in %)

Work Resources

Work resources refer to the people and equipment performing the tasks of a Project.



The two important aspects of work resources are:

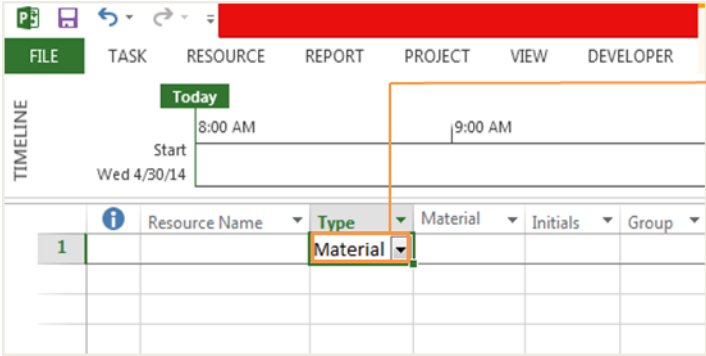
Availability

- Time when the specific resources can work on the tasks and how much work can the resources perform

Cost

- Actual cost incurred by the resources working on the project

Material resources refer to the consumables used in a Project.

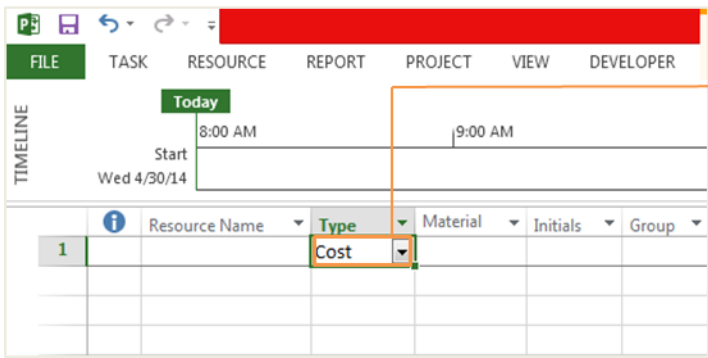


Material resources are added to track:

The rate of consumption

Associated costs

Cost resources can be used to represent a financial cost associated with a task in a Project.



Specific type of cost can be associated with:

Single task

Multiple tasks

Microsoft® Project Professional and Project Web App allow the usage of Generic Resource.

Features of generic resources are:

Generic resources are the categories of workers.

They have to be added in the Project Web App.

Generic resources act as placeholders, which can be later allocated to a real resource.

Adding Date Constraints

If the tasks in Microsoft® Project 2013 is auto-scheduled and you enter the actual duration or start and finish dates, you can notice changes in the scheduled duration, the start and finish dates of the project, as well as the dependent tasks.

A date constraint may be:

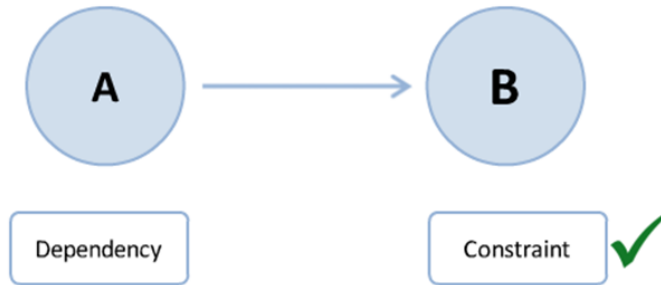
- Completely flexible
- Semi-flexible
- Completely inflexible

The screenshot displays the Microsoft Project 2013 interface. The main window shows a Gantt chart and a task list. The task list includes tasks such as 'SRS', 'Design', 'Development', and 'Deployment'. The 'Task Information' dialog box is open, showing the 'General' tab. The 'Constraint type' is set to 'As Late As Possible', and the 'Constraint date' is set to 'Tue 7/1/14'. The 'Task type' is 'Effort driven', and the 'Scheduling ignores resource calendars' checkbox is checked.

Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource Names	Actual Start
	SRS	5 days	Tue 7/1/14	Mon 7/7/14			Tue 7/1/14
	Meet Client for SRS	1 day	Tue 7/1/14	Tue 7/1/14		John Smith, Travel(\$500.00)	Tue 7/1/14
	Create SRS Document	3 days	Thu 7/3/14	Mon 7/7/14	2	John Smith	
	Design	4 days	Tue 7/15/14	Fri 7/18/14	1		
	System Architecture	1 day	Tue 7/15/14	Tue 7/15/14			
	Design Prototype	1 day	Wed 7/16/14	Fri 7/18/14			
	Class Diagram	1 day	Thu 7/17/14	Thu 7/17/14			
	Database Design	0.5 days	Fri 7/18/14	Fri 7/18/14	7		
	Development	8 days	Mon 7/21/14	Wed 7/30/14	4		
	Coding	5 days	Mon 7/21/14	Fri 7/25/14			
	Design	2 days	Mon 7/21/14	Tue 7/22/14			
	Testing	2 days	Mon 7/28/14	Tue 7/29/14	10		
	Bugfixing	1 day	Wed 7/30/14	Wed 7/30/14	12		
	Deployment	2 days?	Thu 7/31/14	Fri 8/1/14	9		
	Server Install	1 day?	Thu 7/31/14	Thu 7/31/14			
	Install Solution	1 day?	Fri 8/1/14	Fri 8/1/14			

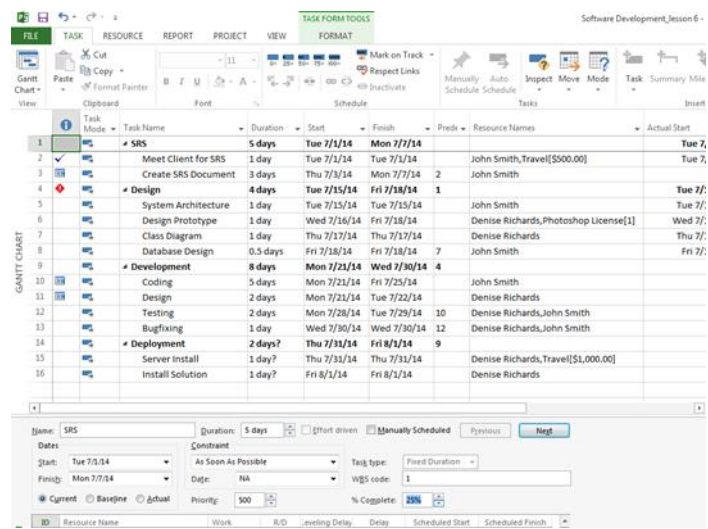
Setting date constraints does not always help in meeting project deadlines.

- Date constraints can lock schedules
- They can lead to clashes as well



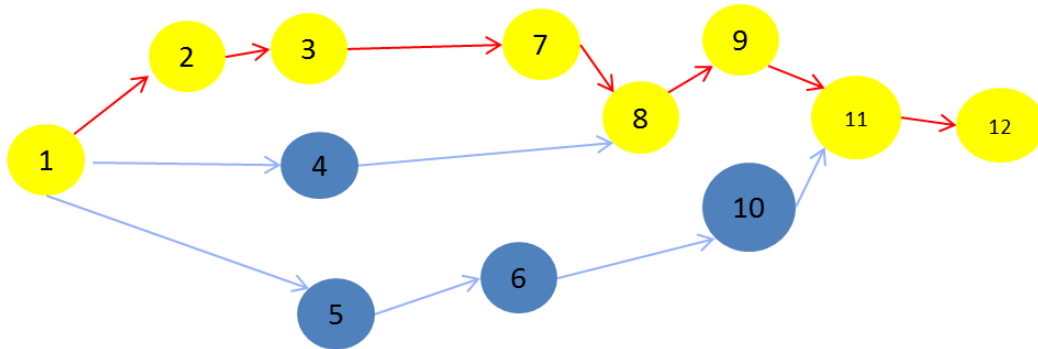
Adding Project Percentage

Project percentage is added to indicate how much of the tasks on the project is complete.



The Critical Path Method is a common method used in project management, to identify the longest path in a project, to estimate project schedules.

- If any task on the Critical Path is late, the whole project is delayed.
- The Critical Path for a master project, where two or more projects are linked together, can be viewed by treating the sub projects as summary tasks of the master project.



Microsoft® Project 2013 also has pre-installed reports which can be generated at any time to monitor the health of the project.

Burndown report	To view the work, completed tasks, and pending work.
Cost Overview report	To view the planned costs, remaining costs, actual costs, cumulative costs, baseline costs, and percentage of completion.
Project Overview report	To view project status, upcoming tasks, and late tasks.
Upcoming Tasks report	To view the work that has been completed in the past week, tasks due for the present week, and upcoming tasks in the next week.
Work Overview report	To review the work status of top level tasks and their completion percentage.
Resource reports	To create resource based reports like Overallocated Resources report and the Resource Overview report.

Master projects or consolidated plans and Subprojects or inserted plans are generally used under two circumstances:

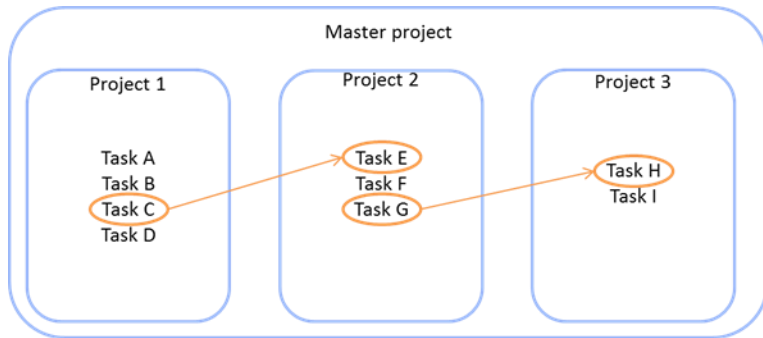
Use of master projects and subprojects:

To manage large projects

To manage project dependencies

Inter-Project Dependencies

Dependencies between tasks of various projects need to be linked.



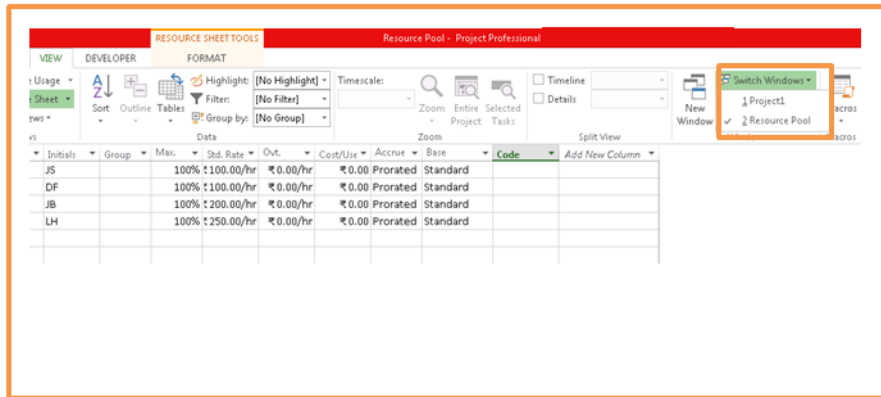
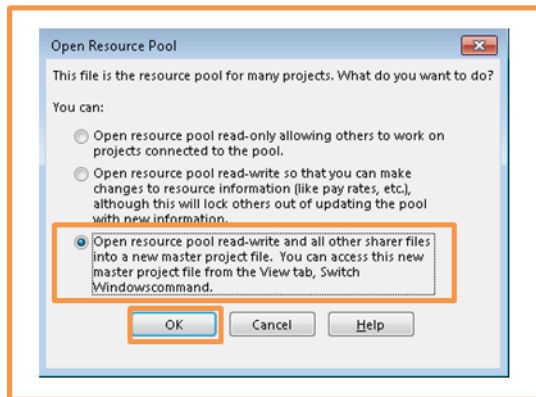
Resolve Resource Conflicts between Shared Projects

The best method to resolve resource conflict is to create a master project, which includes all projects that share the resource pool as subprojects.

Access read-write version of resource pool.

Use **Switch Windows** option in **View** tab.

Resolve the conflicts as explained in **Resolve Resource Conflicts** slide.





QUIZ 1

Which of the following provides option to create benchmarks to compare project performance?

- a. Gantt Charts
- b. Project Schedule
- c. Set Baseline
- d. Standard Calendar



QUIZ 1

Which of the following provides option to create benchmarks to compare project performance?

- a. Gantt Charts
- b. Project Schedule
- c. Set Baseline
- d. Standard Calendar



Answer: c.

Explanation: 'Set Baseline' command is used to create a base point, which acts as a benchmark to compare the project performance.



QUIZ

2

Which of the following calendars is used from 8:00 a.m. to 5:00 p.m.?

- a. Base Calendar
- b. Standard Calendar
- c. Night Shift Calendar
- d. 24-Hour Calendar



QUIZ 2

Which of the following calendars is used from 8:00 a.m. to 5:00 p.m.?

- a. Base Calendar
- b. Standard Calendar
- c. Night Shift Calendar
- d. 24-Hour Calendar



Answer: b.

Explanation: 'Standard Calendar' is the type of calendar which is used from 8.00 AM to 5.00 PM.



QUIZ

3

Which of the following is a named object within the application scope of a project?

- a. Resource
- b. Management
- c. Task
- d. Cost



QUIZ

3

Which of the following is a named object within the application scope of a project?

- a. Resource
- b. Management
- c. Task
- d. Cost



Answer: a.

Explanation: Resource is a named object within the application scope that can exist independently or be assigned to a task.



Here is a quick recap of what was covered in this lesson:



- Microsoft Project 2013 is an application that enables you to plan and manage multiple projects effectively.
- A project manager can initiate a project in Microsoft Project 2013 by using the “Blank Template” option.
- A new project can be initiated in Microsoft Project 2013 by creating a blank project and then adding project details into it.
- A project summary summarizes the timeline of the entire project. The project summary is automatically created by Microsoft Project 2013.
- A resource is a named object within the application scope that can exist independently or be assigned to a task.
- The Critical Path Method is a common method used in project management to identify the longest path in a project and hence estimate project schedules.



Thank You