16CSCI08I

Software Project Management

Lab (1)

Topics covered:

- ➢ Adding tasks and their details including: duration, dependencies, and milestones.
- ➢ Assigning resources to tasks and determining details with respect to resources.

Introduction:

   MS Project is considered one of the various CASE (Computer-Aided Software Engineering) tools that help plan and develop software that meets the customer's requirements and ensure as much as possible that it is delivered on time.

   MS Project has various capabilities with respect to project planning and yet we are mainly concerned with its capabilities to develop a clear and concise Gantt shows the entire plan for the project with apparent details.

Tasks:

Task entry:

   Task entry is quite trivial; simply write the task name in the table that is By double clicking on the task, you can add the start and finish dates or specify the start date and its duration. You can also specify the percentage of the task that has been completed, but be discussed in details further.

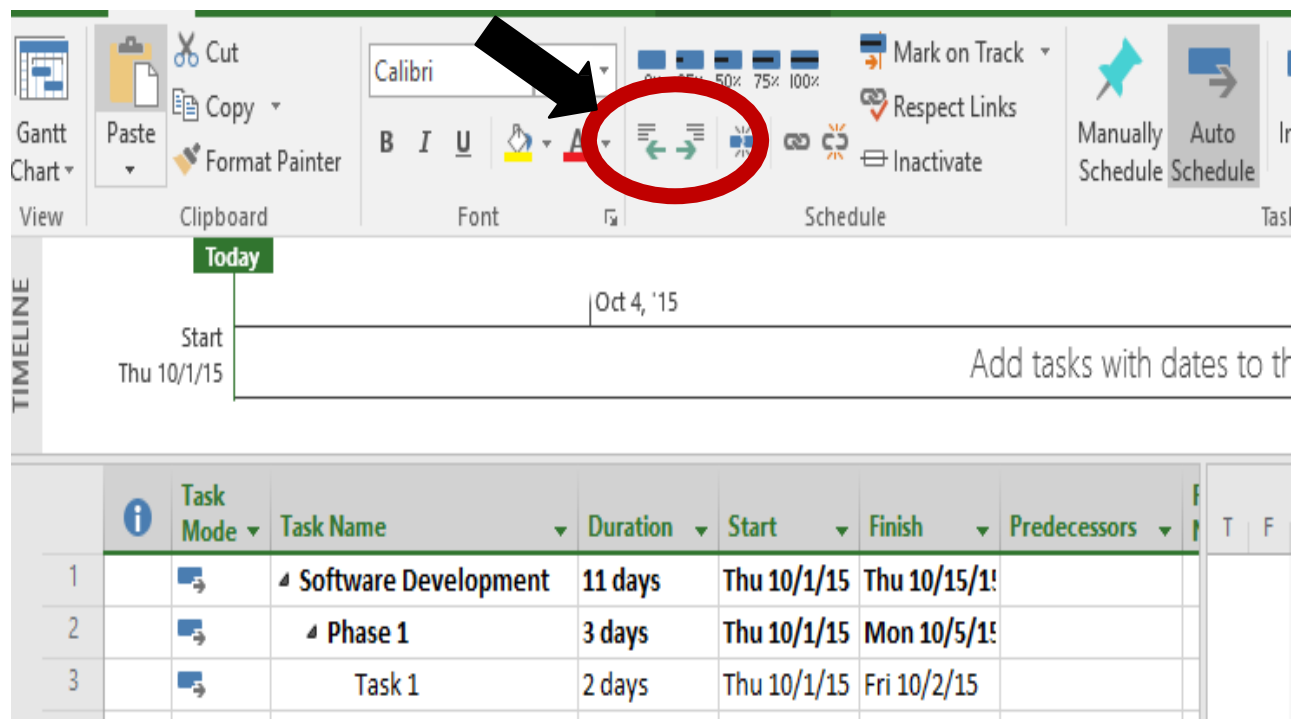|	ⓘ	Task Mode ▼	Task Name ▼	Duration ▼	Start ▼	Finish ▼	Predecessors ▼
1		⇥	⊿ Software Development	11 days	Thu 10/1/15	Thu 10/15/1!	
2		⇥	⊿ Phase 1	3 days	Thu 10/1/15	Mon 10/5/1!	
3		⇥	Task 1	2 days	Thu 10/1/15	Fri 10/2/15	
4		⇥	Task 2	3 days	Thu 10/1/15	Mon 10/5/15	
5		⇥	Task 3	3 days	Thu 10/1/15	Mon 10/5/15	
6		⇥	Task 4	2 days	Thu 10/1/15	Fri 10/2/15	
7		⇥	Finish Phase 1	0 days	Thu 10/1/15	Thu 10/1/15	
8		⇥	⊿ Phase 2	5 days	Thu 10/1/15	Wed 10/7/1!	
9		⇥	Task 1	2 days	Thu 10/1/15	Fri 10/2/15	
10		⇥	Task 2	4 days	Thu 10/1/15	Tue 10/6/15	
11		⇥	Task 3	5 days	Thu 10/1/15	Wed 10/7/1!	
12		⇥	Task 4	2 days	Thu 10/1/15	Fri 10/2/15	
13		⇥	Finish Phase 2	0 days	Thu 10/1/15	Thu 10/1/15	
14		⇥	⊿ Phase 3	11 days	Thu 10/1/15	Thu 10/15/1!	
15		⇥	Task 1	3 days	Thu 10/1/15	Mon 10/5/15	
16		⇥	Task 2	10 days	Thu 10/1/15	Wed 10/14/1	
17		⇥	Task 3	11 days	Thu 10/1/15	Thu 10/15/1!	
18		⇥	Task 4	4 days	Thu 10/1/15	Tue 10/6/15	
19		⇥	Finish Phase 3	0 days	Thu 10/1/15	Thu 10/1/15	

If we want to specify if certain tasks are actually subtasks, select the tasks click on the arrow pointing right in the tool bar (→) which means that the tasks will be indented. Clicking on the left arrow (←) would move up the tasks one level.

Task dependencies - (Predecessors):

It is possible that certain tasks depend on others for the progress of the project, **for example, surveys must be written (Task 1) in order to be distributed and collected for analysis (Task 2).** There are four types of task dependencies:

1. **Start-to-start:**

   In order for Task 2 to start, Task 1 must start.

2. **Start-to-finish:**
   In order for Task 2 to finish, Task 1 must start.

3. **Finish-to-start** (This is the case for the above example):
   In order for Task 2 to start, Task 1 must finish.

4. **Finish-to-finish:**
   In order for Task 2 to finish, Task 1 must finish.

   As shown in the below figure that 'Task 2' depends on 'Task 1'.

		Task Mode	Task Name	Duration	Start	Finish	Predecessors
1			◢ Software Development	11 days	Thu 10/1/15	Thu 10/15/15	
2			◢ Phase 1	10 days	Thu 10/1/15	Wed 10/14/15	
3			Task 1	2 days	Thu 10/1/15	Fri 10/2/15	
4			Task 2	3 days	Mon 10/5/15	Wed 10/7/15	3
5			Task 3	3 days	Thu 10/8/15	Mon 10/12/15	4
6			Task 4	2 days	Tue 10/13/15	Wed 10/14/15	5
7			Finish Phase 1	0 days	Wed 10/14/15	Wed 10/14/15	6

Task Information   ✕

General | Predecessors | Resources | Advanced | Notes | Custom Fields

Name: Task 2   Duration: 3 days   ☐ Estimated

Predecessors:

ID	Task Name	Type	Lag	
3	Task 1	Finish-to-Start (FS)	0d	

**Note**: The lag represents any gaps between the two tasks.

Milestones:

Milestones are tasks that represent the completion of a significant chunk of the project. There is usually a milestone after each phase of the project to signify its completion. In order to mark a milestone, double click on the task, click on the 'Advanced' tab, and tick the last box 'Mark task as milestone'

Resources:

Resources usually signify both tools and human capital, essentially everything that would be used along the course of the project. In MS Project, resources signify the human capital and the percentage of work that each person would put in.

Specify the resources for a specific task by double clicking on the task, click on the 'Resources' tab and specify the resources in the schedule. The '**Units**' section of the table is used to specify the percentage of work that each resource is assigned.
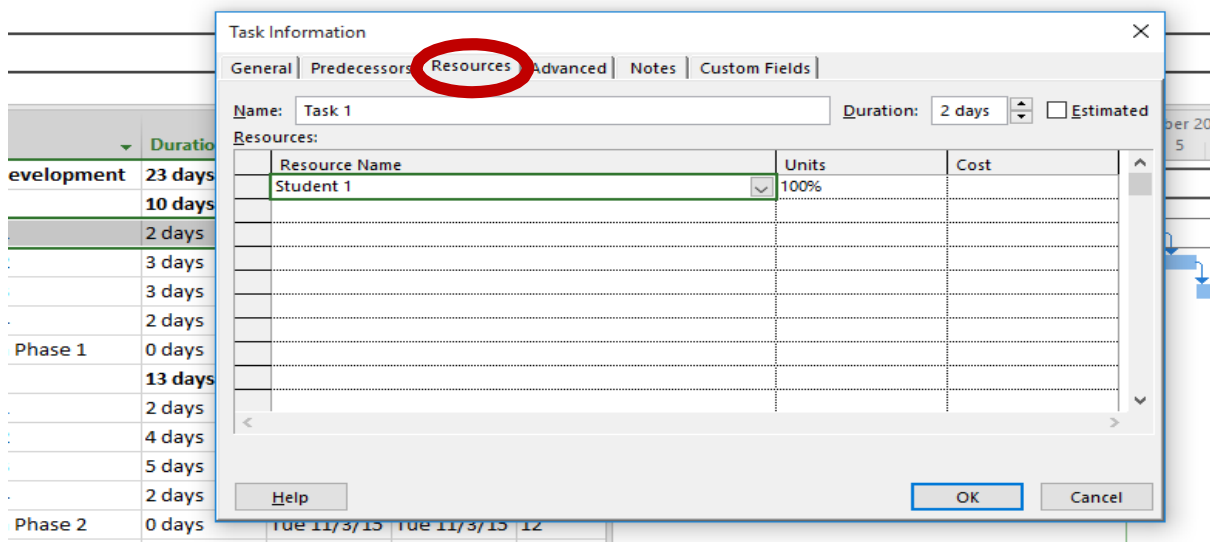
You can also specify all the details with the respect to the resources by clicking on the 'Resources Sheet', which is located in the 'View Bar'.