Managing Projects with MS Project 2010

Session: 2

Creating a Project Plan

Objectives

- Describe a project plan
- Describe how to create a new MS Project 2010 file
- Describe the use of MS Project templates
- Define and describe the Work Breakdown Structure (WBS)
- Describe the procedure to create tasks and sub tasks
- Explain setting and customizing WBS codes
- Explain the integration of MS Office applications with MS Project

Project Plan

- A project plan is a formal and official document that guides through the development of the project as well as manages the project control.
- The key purposes of a project plan to document are as follows:
  - Scope
  - Cost
  - Schedule baselines
- It shows the various resources, milestones, and activities that are part of the project.

Need for a Project Plan

- Preparing a project plan is a crucial activity in a project.
- Consider a scenario wherein a company, Smart Signup Group, has decided to reengineer the existing Internet-based applications to support mobile devices and also incorporate new enhancements to the software.
- This is a massive project and without a proper project plan, there can be various problems and conflicts.
- Some of these may include uneven resource allocation, schedule lags due to lack of planning and scheduling, and so forth.
- One of the staff, Gray Zeus, has been asked to take up this initiative as a project manager.
- As a professional project manager, he/she decides to use the project management best practices combined with MS Project 2010.
- To create the project plan, he/she can create a project file in MS Project by either starting a new project or searching and using a suitable MS Project template.

Creating a Project Plan

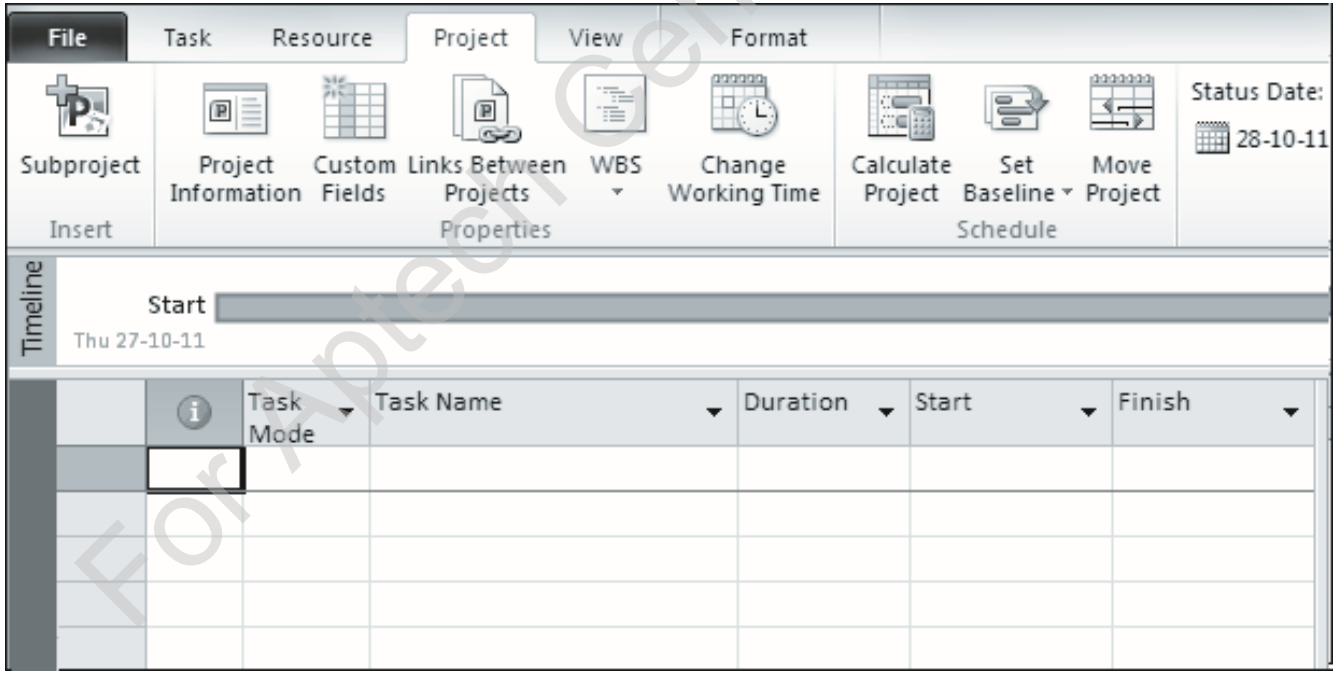
- Following steps are involved in creating a project plan:

1. Creating a new project file using MS Project 2010
2. Defining a draft WBS for the project on paper or using a documenting software such as MS Word or Excel
3. Creating WBS in MS Project 2010 by establishing project information and defining project tasks

- In order to create a project plan, a user must first launch the MS Project 2010 application.

Launching MS Project 2010 and Creating a New Project

- Users can launch MS Project 2010 by selecting it from the Start menu.
- This opens a blank MS Project file.
- Users can start entering the tasks and create a project plan from scratch.
- Users can select a template suitable for the type of project that they want to manage and create the project file based on it.
- They can then edit the predefined list of tasks.
- A blank MS Project file is shown in the following figure:



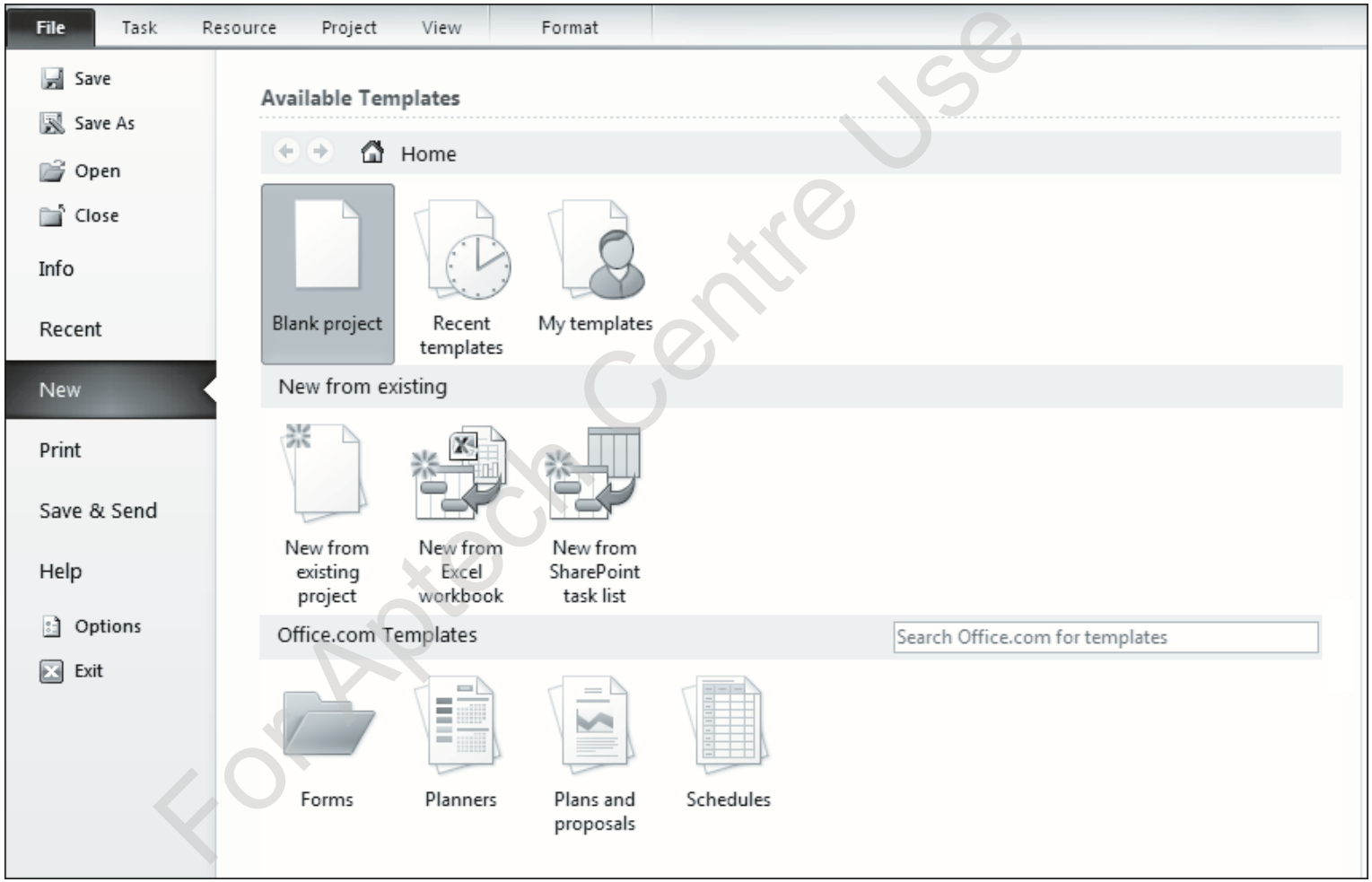
MS Project Templates 1-3

- Microsoft provides several convenient project templates through the Microsoft Office Online Website, Office.com.
- The templates contain sample tasks broken into logical phases, with durations and dependencies in place.
- The templates also include resources to create, edit, and delete project information.
- To create a new project in MS Project 2010 using templates, the following steps must be performed:

1. Click the **File** tab.
2. From the **Backstage** view, select **New**. Here, under the **Office.com Templates** section, a user can select a **Template** category and then select the template that suits the project needs.

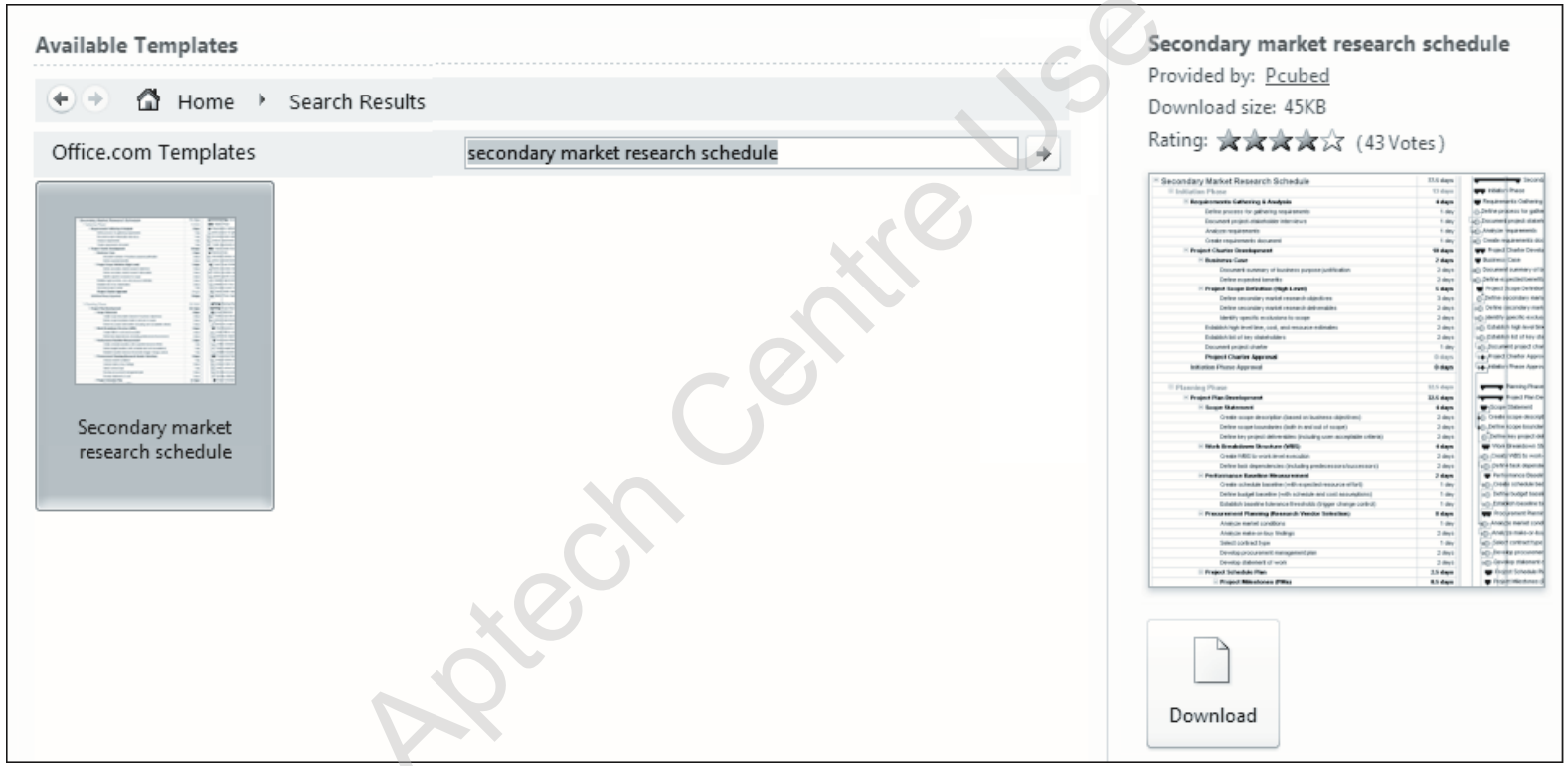
MS Project Templates 2-3

- Following figure shows the MS Project templates that are displayed while creating a new project:



MS Project Templates 3-3

- Following figure depicts the Secondary market research schedule template available from the Office.com Website:



Work Breakdown Structure (WBS)

- The first step after creating a project file is to define the WBS on paper or using documenting software such as MS Word.
- A WBS sets milestones for a project, where the project is broken down into detailed smaller tasks.
- WBS in projects also helps in allocating responsibilities, assigning resources, and project monitoring and control.
- It helps in making realistic and detailed project deliverables so that the project team knows intermediate project goals.
- A WBS layout looks like a typical Windows Explorer file structure or an outline structure of a book index.

Creating a WBS

- Consider the example of a WBS defined for the Smart Signup project that develops mobile applications.
- This WBS will be created in MS Word 2010 which will then serve as a base for creating the WBS in MS Project.
- Launch MS Word 2010 and type the details for WDS.
- Save the file and exit.

Establishing Project Information 1-2

- Project information for any project contains configuration about the project, such as start date, end date, the type of calendar used, and how tasks will be scheduled.
- To establish the project information, perform the following steps:

1. Create a blank new Project file.
2. Open the **Project** tab on the Ribbon.
3. Click **Project Information**.

- In the **Project Information** dialog box, users can enter the following information:

Start Date

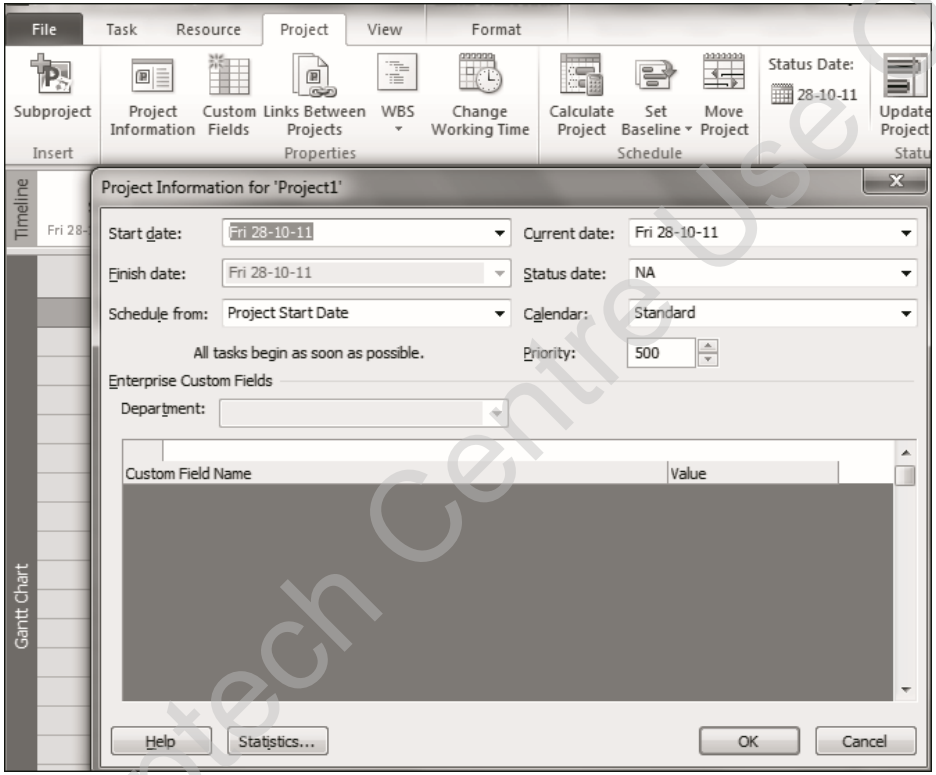
Schedule From

Finish Date

Current Date

Establishing Project Information 2-2

- Following figure illustrates **Project Information** dialog box:



4. Enter relevant information in the **Project Information** dialog box as shown in the figure and click **OK**.
5. Save the file as **SSU_ProjectPlan.mpp**.

Entering Tasks 1-2

- The tasks and subtasks in the WBS will be defined in the Gantt Chart table.
- To create a task, perform the following steps:

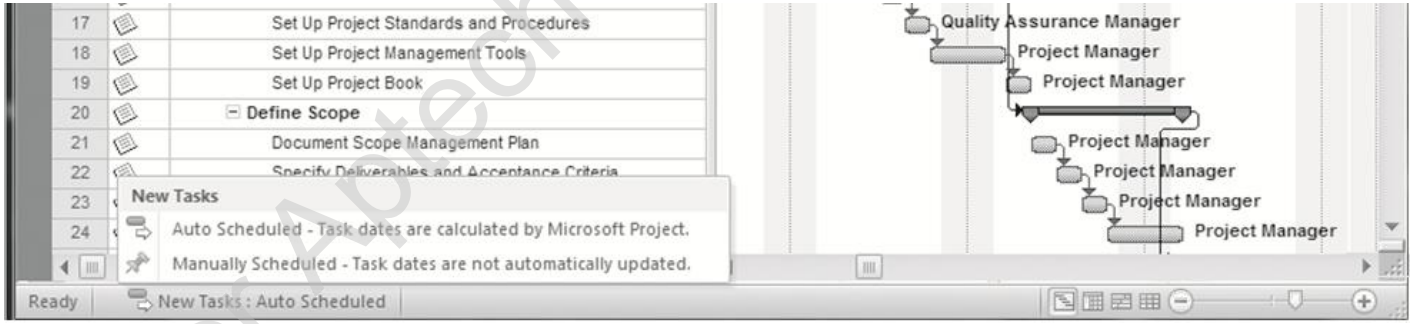
1. In the **Gantt Chart** table, click inside the **Task Name** column and enter the task description.
2. Press **ENTER** or the **Tab** key or simply press the down arrow key to enter the next task.
3. To change the scheduling, click in the **Task Mode** column and select the desired option: **Manually Scheduled** or **Auto Scheduled** from the drop-down list.

Entering Tasks 2-2

- Following figure displays an example of tasks in **Manually Scheduled** and **Auto Scheduled** modes:

Task Mode	Task Name	Duration	Start	Finish
	Project Scope	10 days	Fri 10/28/11	Thu 11/10/11
	Draft scope of work			
	Obtain sponsorship for the project/work order			
	Identify preliminary resources	1 day	Fri 10/28/11	Fri 10/28/11
	Secure resources	1 day	Fri 10/28/11	Fri 10/28/11

- Following figure depicts the two default scheduling options:



Creating Subtasks and Summary Tasks 1-2

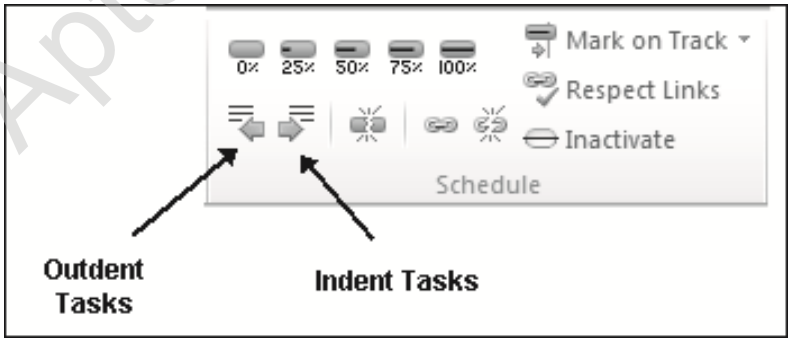
- After entering all major tasks, a project manager can detail out the subtasks.
- To enter a subtask for a major task, perform the following steps:

First, select the task and click the top part of the **Task** button (with a blue icon) in the **Insert** group on the **Task** tab. This adds a new task row.

Next, enter the subtask name in the **Task Name** column.

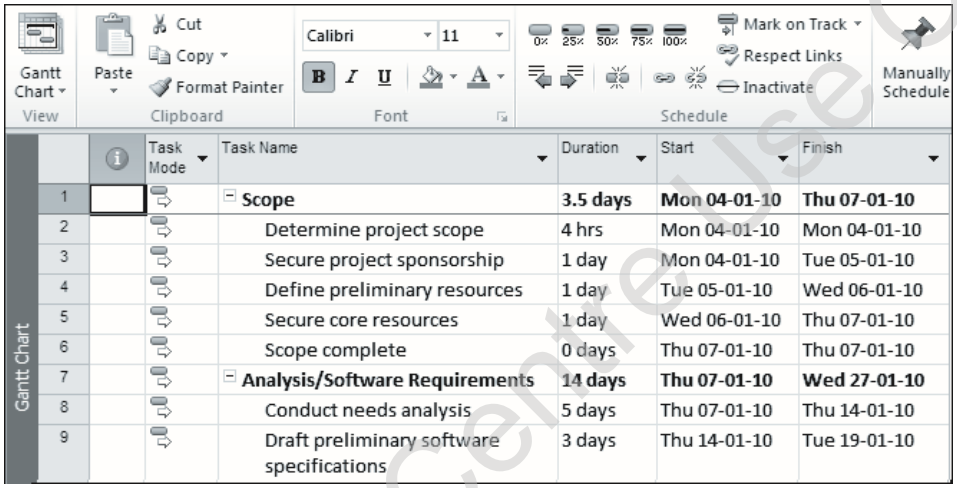
Click the **Indent Task** button in the **Schedule** group on the **Task** tab. Similarly, to modify a subtask to main task, click the **Outdent Task** button.

- Following figure displays the **Indent Task** and **Outdent Task** options on the Ribbon:



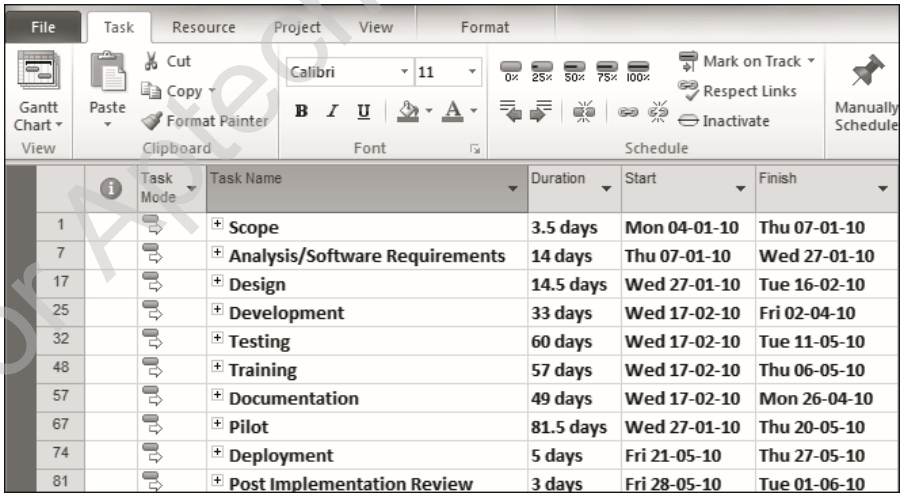
Creating Subtasks and Summary Tasks 2-2

- The list of tasks and subtasks for the Smart Signup project is shown in the following figure:



	Task Mode	Task Name	Duration	Start	Finish
1		**Scope**	**3.5 days**	**Mon 04-01-10**	**Thu 07-01-10**
2		Determine project scope	4 hrs	Mon 04-01-10	Mon 04-01-10
3		Secure project sponsorship	1 day	Mon 04-01-10	Tue 05-01-10
4		Define preliminary resources	1 day	Tue 05-01-10	Wed 06-01-10
5		Secure core resources	1 day	Wed 06-01-10	Thu 07-01-10
6		Scope complete	0 days	Thu 07-01-10	Thu 07-01-10
7		**Analysis/Software Requirements**	**14 days**	**Thu 07-01-10**	**Wed 27-01-10**
8		Conduct needs analysis	5 days	Thu 07-01-10	Thu 14-01-10
9		Draft preliminary software specifications	3 days	Thu 14-01-10	Tue 19-01-10

- Following figure shows the Summary tasks for the Smart Signup project:



	Task Mode	Task Name	Duration	Start	Finish
1		**Scope**	**3.5 days**	**Mon 04-01-10**	**Thu 07-01-10**
7		**Analysis/Software Requirements**	**14 days**	**Thu 07-01-10**	**Wed 27-01-10**
17		**Design**	**14.5 days**	**Wed 27-01-10**	**Tue 16-02-10**
25		**Development**	**33 days**	**Wed 17-02-10**	**Fri 02-04-10**
32		**Testing**	**60 days**	**Wed 17-02-10**	**Tue 11-05-10**
48		**Training**	**57 days**	**Wed 17-02-10**	**Thu 06-05-10**
57		**Documentation**	**49 days**	**Wed 17-02-10**	**Mon 26-04-10**
67		**Pilot**	**81.5 days**	**Wed 27-01-10**	**Thu 20-05-10**
74		**Deployment**	**5 days**	**Fri 21-05-10**	**Thu 27-05-10**
81		**Post Implementation Review**	**3 days**	**Fri 28-05-10**	**Tue 01-06-10**

Defining Milestones

- A milestone can be defined as a task with zero duration.
- In essence, it simply marks a moment in time that must be reflected in the project outline.
- Such tasks do not involve any real work or effort.
- They typically involve a series of tasks, which when completed result in achieving the milestones.
- They must be completed for the project to move ahead.

WBS Levels

- Project managers use WBS as an essential aspect of their project management methodology.
- Similar to the outline of project tasks list, WBS is a hierarchical chart of project deliverables.
- Each level represents details of the project deliverables.
- Levels in the hierarchy represent summary tasks, tasks, subtasks, and so forth.
- WBS levels are associated with a specific code set, such as 4.2, 4.2.1, 4.2.2, and so forth.
- A project manager can also define specific and customized WBS codes.

Defining WBS Codes

- MS Project 2010 generates WBS codes for the list of tasks outlined in the Gantt Chart table.
- These codes are similar to the numbering in a table of contents of a document or a book.
- They are added to the project outline to provide a quick overview of the number of tasks and subtasks, the number of tasks completed, and the number of tasks that are pending in a project.
- MS Project 2010 allows project managers to generate a set of unique outline numbers as basic WBS codes for a project.
- Also, the user can define custom dynamic WBS codes for the project tasks list.

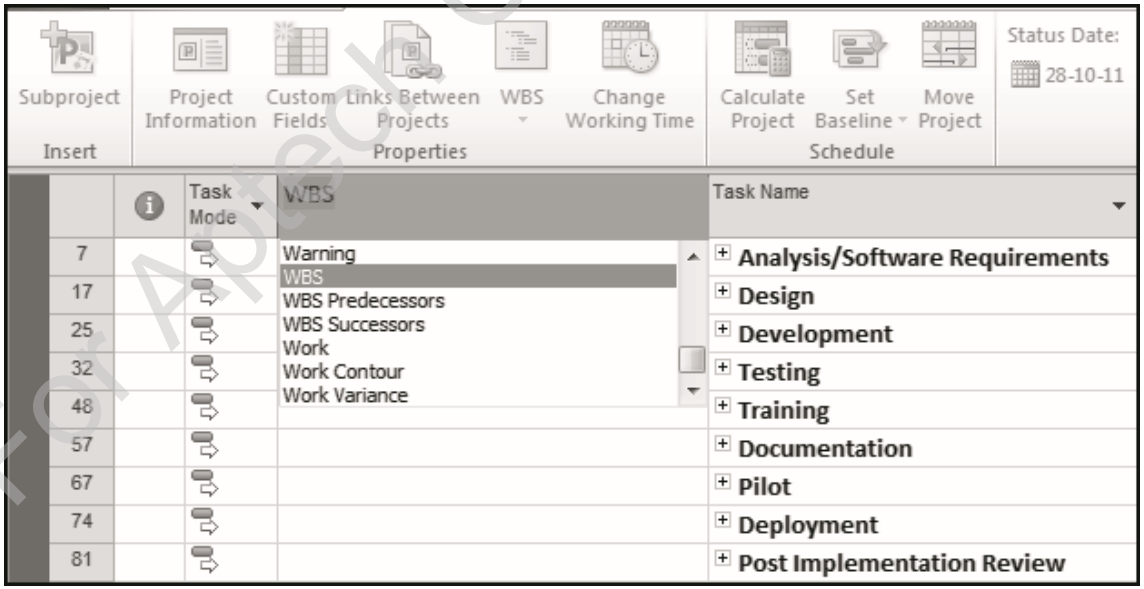
Displaying the WBS Codes

- To display auto-generated WBS codes for a project, perform the following steps:

Insert a new column for WBS codes by right-clicking the column heading before which to display the WBS codes and selecting the **Insert Column** option.

Scroll down the list and select **WBS**. The WBS codes for the entire task details will then be displayed in the column.

- Following figure illustrates the WBS option for displaying WBS codes:



Creating a Custom WBS Code 1-3

- MS Project 2010 allows creating custom WBS codes.
- Users can add a prefix to the WBS codes, such as the name of the project, client name, or department name.
- To create custom WBS codes, perform the following steps:

Open the **Project** tab on the Ribbon.

On the tab, in the **Properties** group, click the **WBS** button and select the **Define Code** option. This displays the **WBS Code Definition** dialog box.

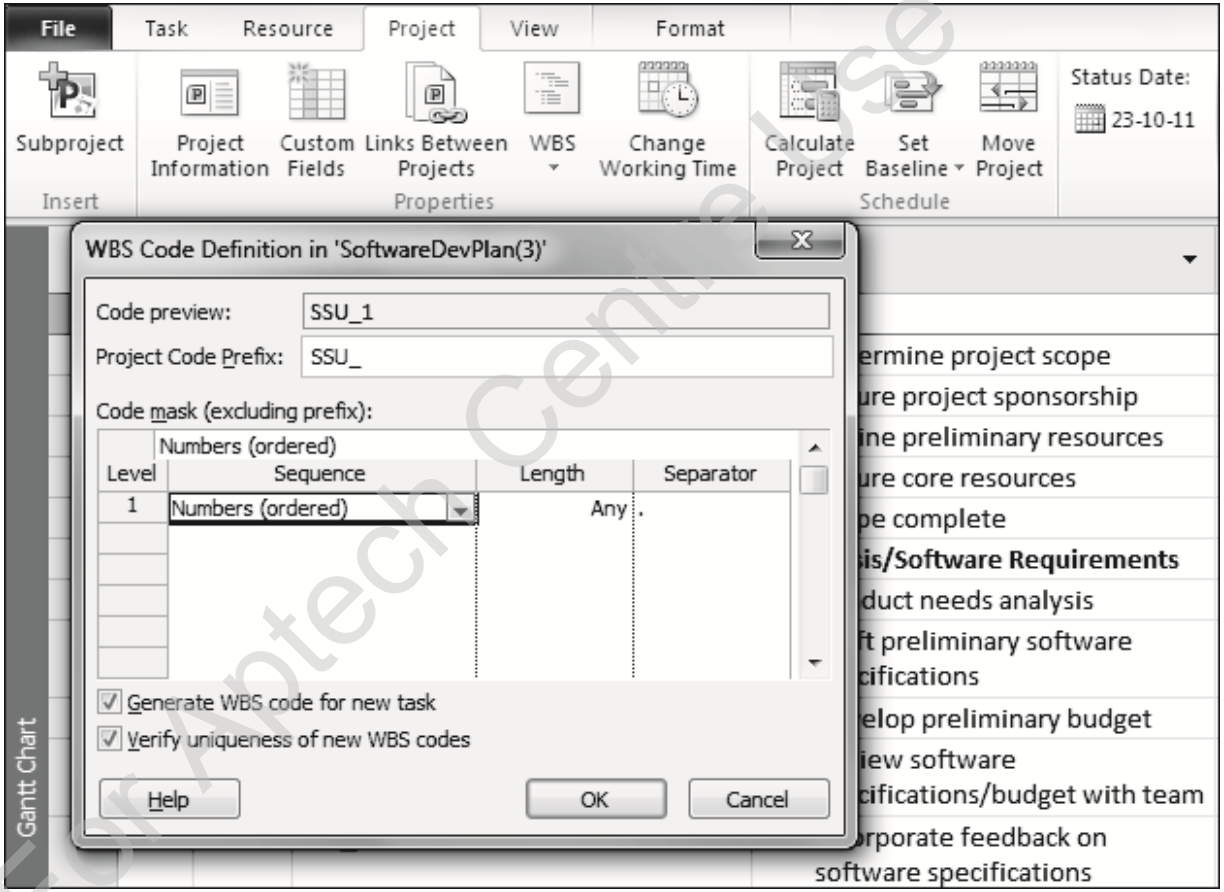
In this dialog box, enter the **Project Code Prefix as SSU_**.

Next, in the table, click the **Sequence** drop-down list and specify the desired type unique coding for the project.

Finally, click **OK** to generate the custom WBS codes.

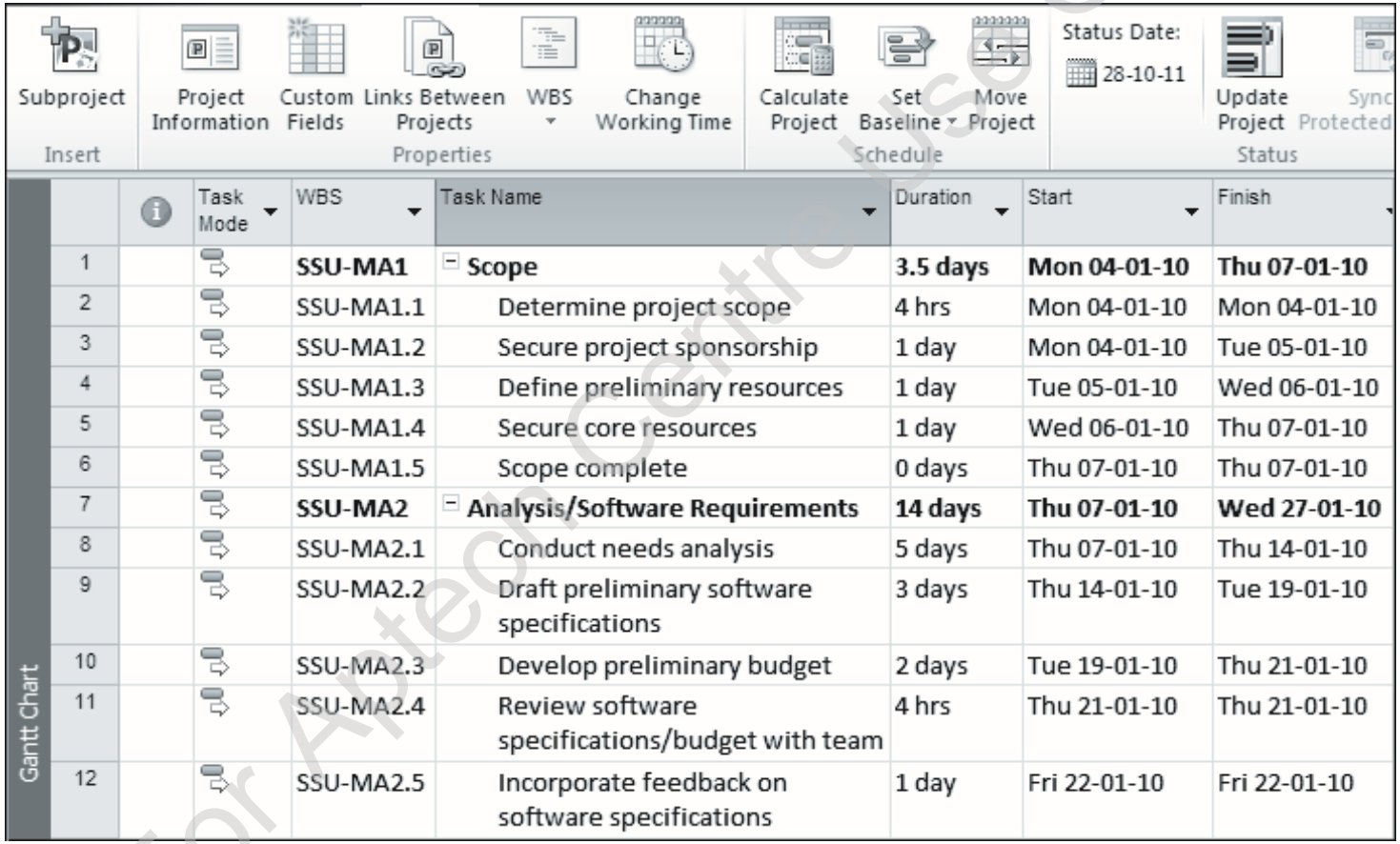
Creating a Custom WBS Code 2-3

- Following figure shows the creation of custom WBS codes in the **WBS Code Definition** dialog box:



Creating a Custom WBS Code 3-3

- Outcome of creating custom WBS codes is as shown in the following figure:



	Task Mode	WBS	Task Name	Duration	Start	Finish
1		**SSU-MA1**	**Scope**	**3.5 days**	**Mon 04-01-10**	**Thu 07-01-10**
2		SSU-MA1.1	Determine project scope	4 hrs	Mon 04-01-10	Mon 04-01-10
3		SSU-MA1.2	Secure project sponsorship	1 day	Mon 04-01-10	Tue 05-01-10
4		SSU-MA1.3	Define preliminary resources	1 day	Tue 05-01-10	Wed 06-01-10
5		SSU-MA1.4	Secure core resources	1 day	Wed 06-01-10	Thu 07-01-10
6		SSU-MA1.5	Scope complete	0 days	Thu 07-01-10	Thu 07-01-10
7		**SSU-MA2**	**Analysis/Software Requirements**	**14 days**	**Thu 07-01-10**	**Wed 27-01-10**
8		SSU-MA2.1	Conduct needs analysis	5 days	Thu 07-01-10	Thu 14-01-10
9		SSU-MA2.2	Draft preliminary software specifications	3 days	Thu 14-01-10	Tue 19-01-10
10		SSU-MA2.3	Develop preliminary budget	2 days	Tue 19-01-10	Thu 21-01-10
11		SSU-MA2.4	Review software specifications/budget with team	4 hrs	Thu 21-01-10	Thu 21-01-10
12		SSU-MA2.5	Incorporate feedback on software specifications	1 day	Fri 22-01-10	Fri 22-01-10

Integrating Project Plans with Other MS Office Applications

- Project plans created and integrated facilitating management of projects with less effort.
- Users can use simple copy-and-paste functions to copy task outlines and notes from other MS Office applications.
- MS Project 2010 keeps intact the project outline structure copied from other Office applications.
- It automatically generates subtasks and summary tasks in the project schedule, based on the list items.
- MS Project 2010 retains text formatting, fonts, text effects, date formats, and colors from the source Office file.

Summary

- MS Project 2010 enables users to create a project file from scratch or by using a template.
- A WBS breaks down the project into detailed smaller tasks and sets milestones for a project.
- Creating a project plan involves creating a new project file, defining a draft WBS, and creating WBS in MS Project 2010 by establishing project information and defining project tasks.
- Project information for any project specifies the project start date, end date, the type of calendar used, and how the tasks will be scheduled.
- Entering tasks and sub tasks mapping to WBS is done after configuring project information.
- The detailed list of major tasks and subtasks in a project file can be collapsed to display a list of Summary tasks to present them in reports.
- MS Project allows generating WBS codes for the list of tasks, which provide a quick glance at the number of tasks and subtasks in the project as well as the number of completed and pending tasks.
- Users can also generate custom WBS codes through the WBS Code Definition dialog box.