**Aim**: Prepare a linked Gantt chart indicating the various responsibilities of the team members.

**Theory**:

Gantt charts illustrate the start and finish dates of the terminal elements and summary elements of a [project](http://en.wikipedia.org/wiki/Project). Terminal elements and summary elements comprise the [work breakdown structure](http://en.wikipedia.org/wiki/Work_breakdown_structure) of the project. Some Gantt charts also show the [dependency](http://en.wikipedia.org/wiki/Dependency_(project_management)) (i.e. precedence network) relationships between activities.

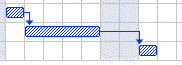
Gantt charts have become common technique for representing the phases and activities of a project [work breakdown structure](http://en.wikipedia.org/wiki/Work_breakdown_structure) (WBS), so they can be understood by a wide audience all over the world. The technique is frequently used in [Project Management](http://en.wikipedia.org/wiki/Project_Management) to help break down the project.

Gantt charts only represent part of the [triple constraints](http://en.wikipedia.org/wiki/Triple_constraints) (cost, time and scope) on projects, because they focus primarily on schedule management. Moreover, Gantt charts do not represent the size of a project or the relative size of work elements, therefore the magnitude of a behind-schedule condition is easily miscommunicated. If two projects are the same number of days behind schedule, the larger project has a larger effect on resource utilization, yet the Gantt does not represent this difference.

Although project management software can show schedule dependencies as lines between activities, displaying a large number of dependencies may result in a cluttered or unreadable chart.

Project plans normally require tasks to be performed in a specific order. For instance, a publication must be written and proofread before it can be printed. To achieve this, the Gantt application lets you link tasks so that they depend on each other. By default, tasks are usually linked in a 'Finish to Start' relationship (dependency), which means that the first task you select (the predecessor task) must end before the next task you select (the successor task) can start, and so on.

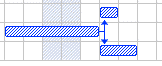
This is typically represented on the Gantt chart by lines with arrowheads joining each task to its successor. The arrowhead indicates the direction of the link: it goes from the predecessor to the successor.



A task can have more than one predecessor. In this case its start date is determined by the predecessor link that gives it the latest start date. As dates and times change during the course of the project, the predecessor link that determines the start date of the task may also change.

gantt chart, predecessors

Similarly a task can have several successors. In this case the task determines the start date of all its successor tasks.



When you are scheduling a project plan from its start date the Gantt application calculates the end date of the project automatically, on the basis of the task durations, the task dependencies and the project calendar.

The possibility of linking tasks in this way is what makes project management software particularly powerful: you can change the duration of one or more tasks, add a task or remove a task from a chain of linked tasks, and all the dates are recalculated automatically so as to maintain the task dependencies you have defined.

Other link types

There are four possible relationships (dependencies) between tasks:

Finish to Start (FS) - the default: The task cannot start before its predecessor ends, although it may start later. This is the most common type of relationship, and is described above.

Start to Start (SS): The task cannot start until the predecessor starts, although it may start later. This can be useful if you have a task whose start date depends on the start date of another task.

Finish to Finish (FF): The task cannot end before the predecessor ends, although it may end later.

Start to Finish (SF): The task cannot end before the predecessor starts, although it may end later. This task relationship is rarely used.

Including resources in a Gantt chart

Many Gantt applications allow you to assign resources to your tasks and project plans. Resources can be people, materials, equipment, budget amounts, or anything else.

**Output**:

