



SNS COLLEGE OF TECHNOLOGY
(An Autonomous Institution)
Coimbatore – 641035.



Unit 4– Topic 4

Gantt Charting: Definition, Benefits, and How They're Used

What Is a Gantt Chart?

A Gantt chart is a commonly used graphical depiction of a project schedule. It's a type of bar chart showing the start and finish dates of a project's elements such as resources, planning, and dependencies.

Henry Gantt (1861-1919), an American mechanical engineer, designed the Gantt chart. [1](#)

KEY TAKEAWAYS

- A Gantt chart is a visualization that helps in scheduling, managing, and monitoring specific tasks and resources in a project.
- It consists of a list of tasks and bars depicting each task's progress.
- The horizontal bars of different lengths represent the project timeline, which can include task sequences, duration, and the start and end dates for each task
- It's the most widely used chart in project management.
- Gantt charts are used in heavy industries for projects like building dams, bridges, and highways, as well as software development and building out of other goods and services.

Understanding Gantt Charts

The Gantt chart is the most widely used chart in [project management](#). These charts are useful in planning a project and defining the sequence of tasks that require completion. In most instances, the chart is displayed as a horizontal bar chart.

Horizontal bars of different lengths represent the project timeline, which can include task sequences, duration, and the start and end dates for each task. The horizontal bar also shows how much of a task requires completion.

The length of the bar is proportional to the time necessary for a task's completion. The project tasks are represented on the vertical axis.

A Gantt chart helps in scheduling, managing, and monitoring specific tasks and resources in a project. The chart shows the project timeline, which includes scheduled and completed work over a period of time. The Gantt chart aids [project managers](#) in communicating project status and completion rate of specific tasks



SNS COLLEGE OF TECHNOLOGY
(An Autonomous Institution)
Coimbatore – 641035.



within a project, and also helps ensure the project remains on track. By convention, it is a standard tool that makes communication unified among the engineering and project management community.

Benefits of a Gantt Chart

The chart identifies tasks that may be executed in parallel and those that can't be started or finished until others are complete. It can help detect potential bottlenecks and identify tasks that may have been excluded from the [project timeline](#).

The chart depicts things like task slack time or additional time for completion of a task that shouldn't delay the project; noncritical activities that may be delayed; and critical activities that must be executed on time.

Gantt charts can be used in managing projects of all sizes and types. These may include building [infrastructures](#) like dams, bridges, and highways. They may also include software development and other technologies. Project management tools, such as Microsoft Visio, Project, SharePoint, and [Excel](#), or specialized software, such as Gantto or Matchware, can help in designing Gantt charts.

Example of a Gantt Chart

Company A is taking on a project to install new software on the servers of a large [investment bank](#). Company A decides to create a Gantt chart to help manage the project and its different components.

The project's tasks that require completion include conducting research, selecting a software product, testing the software, and installing it. These tasks appear as vertical lines on the Gantt chart. A milestone of the project is selecting the software.

The project's duration is 40 days as agreed upon between Company A and the investment bank. Each task takes 10 days to complete, and each task is dependent on the previous task. A critical activity is testing the software in the development and test environments.

The task start and end dates, duration, and milestones appear as horizontal bars on the Gantt chart. The percentage of work completed for each task also is displayed on the horizontal bars. Using the Gantt chart will help Company A map out the tasks along a timeline to reach full completion in 40 days.

What Are Gantt Charts Used for?

Gantt charts help visualize various tasks and projects that occur simultaneously within an organization, and how far along they have progressed. They are used by management to plan and schedule such projects so



SNS COLLEGE OF TECHNOLOGY
(An Autonomous Institution)
Coimbatore – 641035.



that resources can be allocated in an optimal way and that projects that are prioritized can finish before less important ones begin.

Who Was Henry Gantt?

Henry Gantt was a social scientist and management consultant who also held a degree in mechanical engineering. He worked in the field of scientific management, developing methods to streamline and increase the productivity of corporations and their workforce. He created the Gantt chart in the 1910s to help supervisors understand the progress of their labor force and to ensure tasks were on schedule. ¹

What Are the Components of a Gantt Chart?

A Gantt chart can vary in complexity and depth, but will always have three key components: activities or tasks that are to be done, running along the y-axis; milestones or progress stages indicated along the x-axis (either on the top or bottom of the chart); and progress bars, denoted as horizontal bars, denoting how far along each task is at any given point.

The Bottom Line

A Gantt chart is a visual description of a project's timeline. The chart shows the start and end dates of a project's components, such as resources and planning. If you are involved in a project, it is recommended to use a Gantt chart to help organize the various tasks within the project.