

Question

What types of resource projects, large and small, have taken place in your organisation recently?

There will usually be resource projects across all areas and functions, including:

- People, staffing, and management
- Products and services
- Materials, Manufacturing, and production
- IT and communications
- Plant, vehicles, equipment
- Storage, distribution, logistics
- Buildings and premises
- Finance, administration, acquisition, and divestment
- Purchasing
- Sales, selling, marketing
- Human resources, development, and training
- Customer service and relations
- Quality, health, and safety
- Legal and professional
- Technical, scientific, research, and development
- New business development.

The successful implementation of a resource project, for projects big or small, depends on proper planning.

Planning and Monitoring Techniques

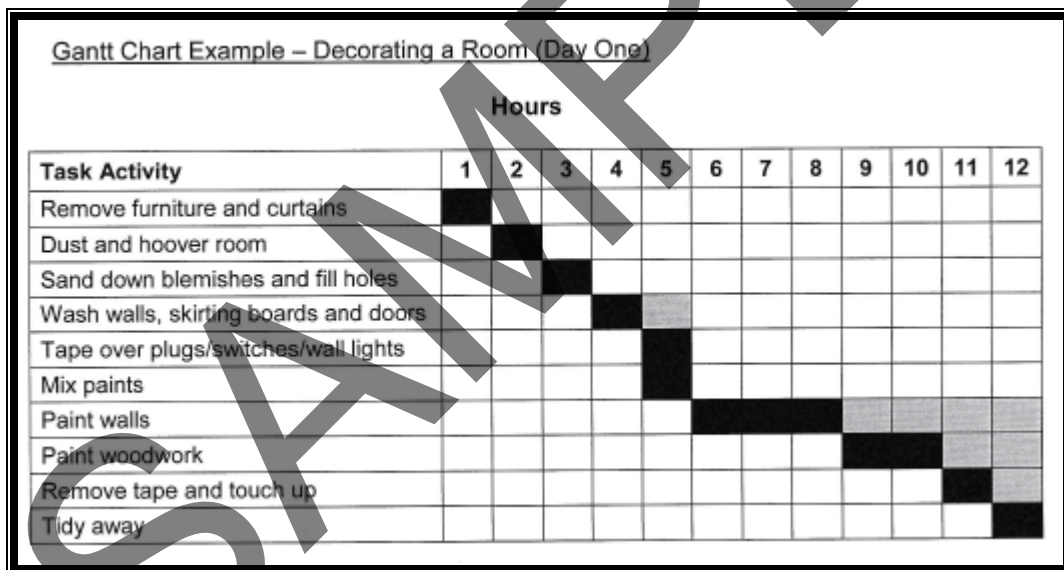
A plan can be defined as: 'A description of how we intend to reach an objective. Planning is the process of determining how the desired outcome will be achieved. In a change project, planning enables the Manager and Resource Project Team to establish what tasks must be undertaken, the resources necessary to complete these tasks, and scheduled work. The two most popular planning tools are the Gantt Chart and Network Diagrams.

Gantt Charts. Gantt Charts are handy project management tools. The Gantt Chart is named after US engineer and consultant Henry Gantt (1861-1919), who devised the technique in the 1910s.

Gantt charts are excellent models for scheduling, budgeting, reporting, presenting, and communicating project plans and progress easily and quickly. But as a rule, Gantt Charts are not as good as a Critical Path Analysis Flow Diagram for identifying and showing interdependent factors or 'mapping' a plan from and into all of its detailed causal or contributing elements.

You can construct a Gantt Chart using MS Excel or a similar spreadsheet. Every activity has a separate line allowing you to create an overall timeline for the project's duration (the example below - one day decorating a room - shows hours, but you usually would use weeks, or for massive long-term projects, months). You can colour code the time blocks to denote type of activity (for example, intense, watching brief, directly managed, delegated, and left-to-run). You can schedule a review and insert breakpoints. At the end of each line, you can show as many cost columns for the activities as you need, showing, for example, planned to spend, actual spend, and spend variances, and calculate any totals, averages, and ratios that you need.

Gantt Charts are probably the most flexible and valuable project management tools. However, they do not quickly show the importance and interdependence of related parallel activities. Nor do they clearly show the necessity to complete one task before another can begin, as a Network Diagram will do. You may need both tools, especially at the planning stage, and almost certainly for large complex projects.



Project Evaluation and Review Technique - Network Diagrams

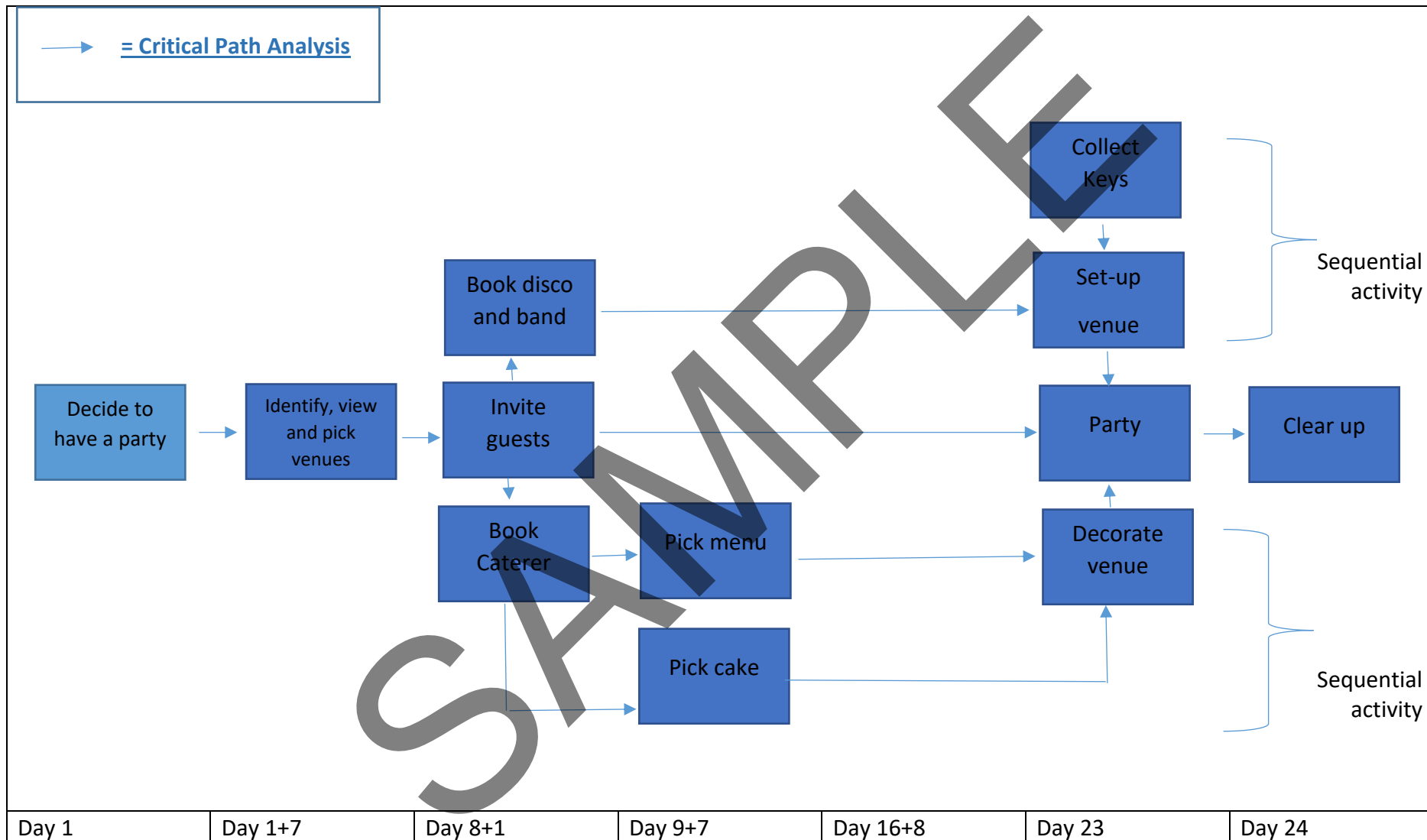
Another commonly used planning tool is Project Evaluation and Review Technique (PERT). PERT is a specialised method for identifying related and interdependent activities and events within a project. While PERT is not ordinarily relevant in simple tasks, any project of considerable size and complexity, mainly when timings and interdependency issues are crucial, can benefit from the detailed analysis enabled by PERT methods. PERT analysis commonly feeds into what is known as Critical Path Analysis. 'Critical Path Analysis' sounds very complicated, but it's a logical and effective method for planning and managing

complex projects. Critical path analysis is generally shown as a flow diagram whose format is linear (organised in a line), specifically a timeline.

The Critical Path on any project is defined as 'the longest route through the project'; that is, the total time it will take for the most extended sequence of interdependent events/activities to complete. Critical Path Network diagrams perfectly show interdependent factors where timings overlap or coincide. They also enable a plan to be scheduled according to a timescale.

Taking, as an example, the project to organise a family party, we can undertake a Critical Path Analysis and prepare a Network Diagram. We know what activities are involved: identifying a venue, booking a venue, booking catering and entertainment, inviting family and friends to attend, ordering a cake, decorating the room, and clearing up. Some of these activities can happen in parallel, and some are interdependent. That is to say, if the organiser (project manager) tried to book catering before the number of attendees was known, it could be a very costly mistake! Similarly, specific tasks must be started before others, and certain tasks must be completed for others to begin. For example, the venue must be booked before invitations can be sent out, and we cannot clear up until after the party. See a measure on the next page.

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Challenge

Using the critical path analysis example above, create your own critical Path below of an activity/project.

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