Bar Chart
BAR CHART

- Developed by Henry Gantt.
- Definitions
  A graphical description of the project consisting of well-defined collection of tasks.
- Activity
  An activity is a task or closely related group of tasks whose performance contributes to the completion of the overall project. “Excavate Foundation”.

DR. Nabil Dmaidhi
# BAR CHARTS

## ORGANIZATION

<table>
<thead>
<tr>
<th>Item</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M10</td>
<td>Mobilization</td>
</tr>
</tbody>
</table>

Bars (Month or Year)
CONSTRUCTION THE BAR CHART

- When constructing a bar chart, the following questions must be answered:
  1. What time units should be used?
  2. Should work days or calendar days be used?
  3. What about noncontinuous work?

- Additional information may be added to the basic bar chart such as activity value, cost and resource requirements.
TYPE OF BAR CHART

Type I

- Linear time-scaled for planning, Linear progress-scaled for reporting
- Assume the progress of the activity as a direct-linear function of the elapsed time.
- For this example
  - Five months were originally scheduled for this activity.
  - Reporting date at 3rd month, 60% of the elapsed time.
  - Activity behind by 10% “May or may not be true”.
Type I Bar Charts

(a) Type I Plan Bar

(b) Type I Reporting: Version 1

(c) Type I Reporting: Version 2

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TYPE OF BAR CHART (cont.)

Type II

- Time scaled for planning - Time scaled for reporting.
- Planned cumulative progress % are written at the end of each time interval.
- No linearity
- the reporting bar gives no indication of about the actual progress.
Type II Bar Charts

(a) Type II Plan Bar

(b) Type II Reporting: Case 1

(b) Type II Reporting: Case 2
BAR CHART
ADVANTAGES AND DISADVANTAGES

Advantages

- Easy to prepare
- Easily understood by all parties
- It shows the total plan in impact form.
- Good communication tool

Disadvantages

- Does not show interrelationships between activities
- Managing projects becomes difficult without those relationships between activities
- It is difficult to judge the impact of an unexpected event on the rest of the construction process