- Activities
  - $\mathcal{A} = \{A_1, \ldots, A_n\}$ the set of activities/tasks, and
  - dummy activities: A_0 (source/start of the project) and A_{n+1} (sink/end of the project)
  - $V = \{A_0, A_{n+1}\} \cup \mathcal{A}$
  - p_i processing time/duration of activity A_i
  - $G(V, E, p)$ precedence graph: if $(A_i, A_j) \in E$ then $S_j \geq S_i + p_i$
  - $\Gamma_i \subseteq V$ set of direct successors of activity A_i
  - $\Gamma_i^{-1} \subseteq V$ set of direct predecessors of activity A_i
  - S_i starting time of activity A_i,
  - C_i finishing time of activity A_i,
  - ES_i earliest starting time (when computed during resolution)
  - r_i release date (when part of input data),
  - EC_i earliest completion time,
  - LS_i latest starting time,
  - LC_i latest completion time (when computed during resolution),
  - d_i due date (when part of input data)
  - δ_{ij} minimal (start-start-)distance between A_i and A_j: $S_j - S_i \geq \delta_{ij}$
  - $S = \{S_0, S_1, \ldots, S_{n+1})$ a schedule
  - $C_{\max}$, $L_{\max}$: makespan and maximum lateness
  - L_i, T_i : lateness and tardiness
- Time
  - H time horizon: $S_0 = 0$ and $S_{n+1} \leq H$
  - $\mathcal{T} = \{0, 1, \ldots, H-1\}$ the set of time periods t
  - $\mathcal{A}_t = \{A_i \in \mathcal{A} \mid S_i \leq t < S_i + p_i\}$ the set of activities in process at period t
  - $\mathcal{S}_H$ the set of feasible schedules with makespan not greater than H
- Resources
  - $\mathcal{R} = \{R_1, \ldots, R_q\}$ the set of resources
  - B_k capacity of resource R_k
  - b_{ik} amount of resource R_k used during the execution of A_i
- Sequencing constraints and related sets
  - $i - j$ short notation for constraint ($S_i + p_i \leq S_j$ or $S_j + p_j \leq S_i$): i and j are in disjunction.

- $i \rightarrow j$ short notation for constraint $S_i + p_i \geq S_j$: i precedes j.
- $i||j$ short notation for constraint ($S_i + p_i > S_j$ and $S_j + p_j > S_i$): i and j are in parallel.
- D a set of disjunctions $i - j$.
- Ω a set (or clique) of activities pairwise in disjunction.
- $\mathcal{F}$: $l \in \mathcal{F}$ is a feasible set of activites, i.e. a set of activities that can be all in parallel in a feasible solution.
- $\mathcal{C}_m$: $C \in \mathcal{C}_m$ is a minimal critical (or forbidden) set of activites (C is not a feasible set and any subset of C is a feasible set).

- Linear Programming
  - x_{ij} 0-1 variable: $x_{ij} = 1 \Leftrightarrow i \rightarrow j$
  - f_{ijk} flow of resource R_k units from A_i to A_j
  - y_{it} 0-1 variable: $y_{it} = 1 \Leftrightarrow S_i = t$
  - z_{lt} 0-1 variable: $z_{lt} = 1 \Leftrightarrow$ feasible set $l \in \mathcal{F}$ is in process at time t