Constraint Programming

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Assignment
Constraint Propagation in Scheduling

- Review the lecture “Constraint Based Scheduling: Propagation”

- Find an example of machine scheduling problem (in the similar format of the ones in the lectures) supporting
  - The edge finding rule on slide 8
    - \( p(\Omega \cup \{A\}) > \text{lct}(\Omega) - \text{est}(\Omega \cup \{A\}) \Rightarrow \Omega << A \)
  - The not-last rule on slide 14
    - \( p(\Omega \cup \{A\}) > \text{lct}(A) - \text{est}(\Omega) \Rightarrow \neg \Omega << A \)
Constraint Programming in Rostering

- Review the literature of constraint programming in solving nurse rostering / personnel scheduling problems
- Read in details one paper employing CP for solving nurse rostering / personnel scheduling problems

- Write a report, imagining you are a referee for the paper, submitted to a conference or a journal
  - What’s the main work of the paper
  - What’s the main contribution and drawback of the paper
  - What could be improved as the future work based on the work
  - You should provide your own (critical) views