

DCR Graphs



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The Theory

- Imperative vs Declarative process modelling
- Explanation of Relations

The Assignment

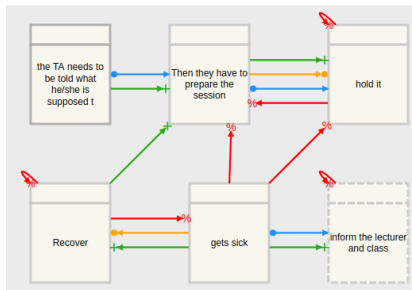
- Modelling the events
- Conformance Checker

The Theory



- ▶ Events are unconstrained by default
 - ▶ As opposed to nothing being allowed
- ▶ Constraint relations used to model processes
 - ▶ As opposed to allowance
- ▶ State represented as marking
 - ▶ Executed, pending or included

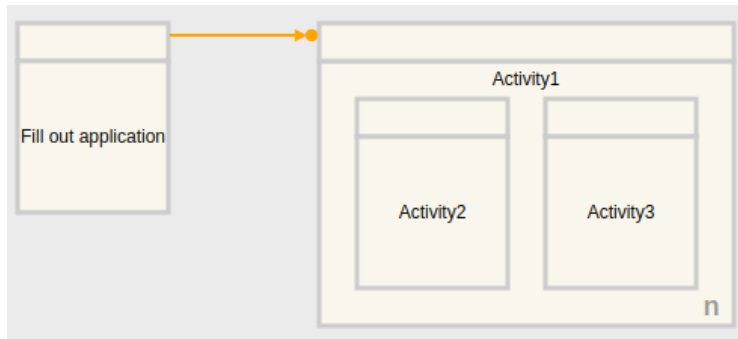
- ▶ Example graph
 - ▶ Response
 - ▶ Condition
 - ▶ Exclude
 - ▶ Include

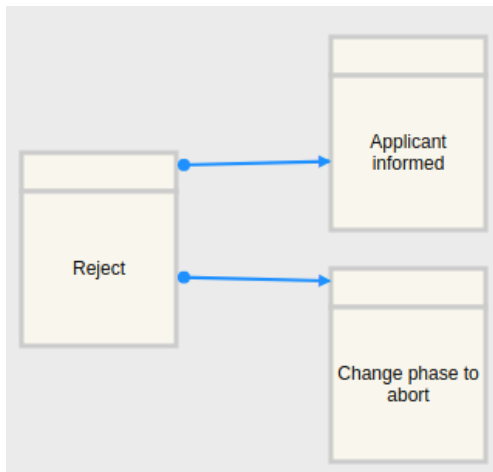


The Assignment



- ▶ "Fill out application" must happen first
- ▶ "Applicant Informed" and "Change phase to abort" must happen after "Reject"
- ▶ Thought process behind modelling each





- ▶ Given a log and DCR Graph
 - ▶ How many processes are conformant
 - ▶ Where can things be improved?
- ▶ Real world applications
 - ▶ Is model wrong, is the process wrong or the execution?
 - ▶ Cannot answer, but can help figure out where to ask
 - ▶ Process enhancement