

Elective in Software and Services

(Complementi di software e servizi per la società dell'informazione)

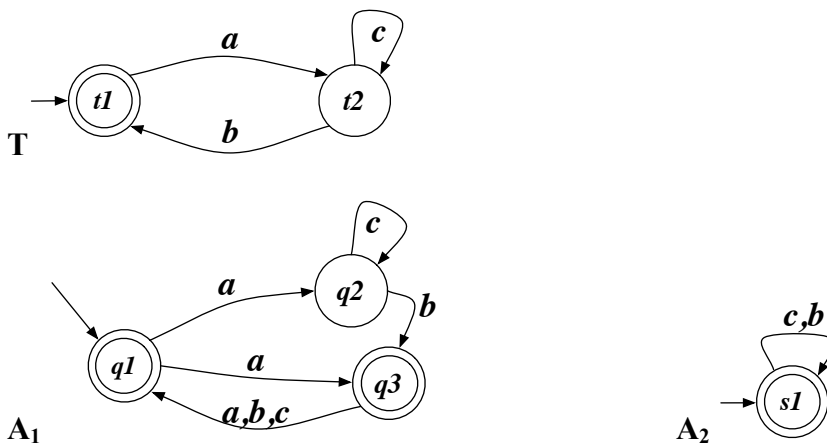
2010/11

10/06/2011

Time to complete the assignment: 2 hours

Part 1 (Composition Synthesis)

Given the following the available services A_1 and A_2 and the target service T , check whether a composition realizing it exists, and if it does, produce the output relation of orchestrator generator. If not, single out the target state that cannot be (ND-)simulated, and propose a change to the available services so as to guarantee the composition.



Part 2 (Theoretical Question)

Write the definition of bisimulation and simulation. Then consider the following transition systems.



- Are they bisimilar? If so, write a bisimulation relation. If not, show where bisimulation breaks.
- Does S simulate T ? If so, write a simulation relation. If not, show where simulation breaks.
- Does T simulate S ? If so, write a simulation relation. If not, show where simulation breaks.