Lecture 20 - March 26

Model Checking

Exercises: U, W, R Stronger vs. Weaker Assertions

Announcements/Reminders

- WrittenTest2 this Thursday
- Lab4 to be released
- Office Hour this week: 3pm on Wed, Thu
- TA contact information (on-demand for labs) on eClass

Formulating Natural Language in LTL (1)





Formulating Natural Language in LTL (2.4)

Natural Language:

Whenever a process makes a request, it starts waiting. As soon as no other process is in the critical region, the process is granted access to the critical region.

LTL Formulation

Gi (regrested => (noDieInCSR)

ut wing growthat (No One In (SA waiting

Slide 52

Assumed atoms:

- requested
- waiting
- granted
- <u>noOneInCs</u>

Q. Is starvation freedom guaranteed? All⁵⁵

Slide 48

Model Satisfaction: Exercises (7.1)



Slide 49

Model Satisfaction: Exercises (7.2)



Exercise: What if we change the LHS to s₂?

- definitions · F, G, X

Ly prove vs. disprove them?

- path vs. model satisfaction.

