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CSSE373
Lab 8

1)

a) Loads the file into the NuSMV environment
b) Chooses the initial state randomly
c) Prints the current state to the console
d) Starts a three step simulation of the model by picking next states randomly
e) Outputs the number of traces to the console
f) Displays a trace of the simulation including the initial state and the three random states added
g) Changes the current state to the 4^{th} state in the 1^{st} trace
h) Displays a trace of the simulation starting from state 2.4
i) Specifies that we want to manually pick the next state in the simulation interactively
j) Displays a trace of the simulation starting from state 3.1
k) Specifies that we want to interactively pick the next state based on states that are constrained by "request = TRUE"

3)

Saw no difference in the traces

4)

The first LTL formula specifies that two processes cannot be in the critical region at the same time. The second LTL formula specifies that whenever a process wants to enter its critical session, it eventually does. The second formula does not hold because a process can get into an infinite loop where it uses up the resource but right as it lets it go it claims the resource again before the other process, which has requested the resource, can grab hold of it.