Programming Assignment – 2 (Part -1)

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Directory Structure

- ./run.script (Bash script that can be directly run)
- constraints.pl (Contains all the constraints for the given FSM model)
- databases/ (Directory containing all the prolog databases against which we are running our constraints.pl)

This problem was very interesting as it had so many cases of failure in FSM model, which certainly tested my prolog knowledge.

As described in the class, various FSM drawing tools in market allow user to draw FSM's which don't even make sense. Therefore, in the list of my constraints, I tried to cover all the cases which I could think of. Some of the challenging ones to implement were:

1. We should check that each node in the graph should be reachable from start and stop node both.
2. There should exactly be one start or stop node.
3. Printing down all the invalid constraints. If no invalid rule is there, printout a message saying "No invalid constraints found"

In my test databases, I have added two copies of each db (except the fsm* ones), one is a FSM which would violate some constraints and another one is a correct FSM.

Databases/
- eatinghabits_db_with_errors.pl
- eatinghabits_db.pl
- fsm10.pl
- fsm20.pl
- fsm30.pl
- progAss1_part3_db.pl
- progAss1_part3_db_with_errors.pl

Note: You should just run.script. It would take care of running constraints.pl agianst each prolog database and would print out meaningful messages.

One Catch:
You might observe some outputs like:

* Primary key is not unique in the transition table. We are repeating: t3
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This might seem incorrect, but its just that multiple primary key error is reported twice (once each time for the repetitive entry).