EECS 638

Homework Assignment # 2

due: February 28, 2017

A production system is described as follows

Rules

R1. $A \wedge B \rightarrow E$,

R2. $A \wedge C \rightarrow F$,

R3. $\neg A \wedge B \rightarrow D$,

R4. $\neg A \wedge \neg B \rightarrow E$,

R5. $B \wedge C \rightarrow F$,

R6. $D \wedge \neg F \rightarrow H$,

R7. $D \wedge F \rightarrow G$,

R8. $E \wedge F \rightarrow H$,

R9. $E \wedge \neg F \rightarrow G$.

Conflict Resolution

Rules are ordered according to their names. During each scanning of the list of rules by the interpreter, applicable rules are pushed into a stack, successively. After scanning, a rule popped from the top of the stack is fired. During each session, any rule may be fired once.

Tell what the content of the data base is after the forward chaining session if the initial content of the data base is

$$\{A, B, C\}.$$

Assume that the facts are created starting from A, then B, and finally C.

Use CLIPS for your implementation. Submit a printout with your source code and with a session, including *facts* at the beginning and at the end of the session.