CS3110 Formal Language and Automata
JFLAP Questions
Due date: 05/19 (Wednesday), 23:59pm

Download JFLAP software version 7 (May 15, 2011) from http://www.jflap.org/jflaptmp/.

An online tutorial can be found at http://www.jflap.org/tutorial/. User manual document titled "JFLAP Activities for Formal Languages and Automata" is up on blackboard Course Materials. Please read the Section 2.2 and 2.3 in the user manual for explanations on how to use JFLAP for the following tasks. Solve the following JFLAP questions. Submit a report file which includes answers to questions and explanations, and the required .jff files.

1. Given the alphabet {a,b,c}, construct a DFA to recognize any strings with length equal to 3n, where n is any positive integer. Submit your final .jff file.

2. Find the NFA for L(((aa + b)* + ab*a)*) using JFLAP. Convert the NFA to DFA using JFLAP. Submit the .jff files for both NFA and DFA and explain the steps of using JFAP.

3. Given the alphabet of input symbols {a,b,c}. Use JFLAP to construct a PDA to recognize strings for which the number of a's is twice the number of b's. please take screen shots of important steps when you are using JFLAP, and briefly explain your solution and your result. Also turn in the .jff file.

4. For the PDA below, what language does it accept? Use JFLAP to draw another PDA transition graph for the same language. Submit the .jff file.