Pushdown Automata

CS 311, Fall 2015

Exercise 1

a) Describe in English the language generated by the following Grammar

\[
S \rightarrow aSb \mid bY \mid Ya \\
Y \rightarrow bY \mid Ya \mid \epsilon
\]

b) Draw a state diagram for a PDA that recognizes the language generated by the grammar in part a. (You may use the simplified machine that pushes multiple symbols to the stack at a time.)
Exercise 2

a) Describe in english the language generated by the following Grammar

\[ A \rightarrow BA \mid \varepsilon \]
\[ B \rightarrow aBb \mid \varepsilon \]

b) Draw a state diagram for a PDA that recognizes the language generated by the grammar in part a. (You may use the simplified machine that pushes multiple symbols to the stack at a time.)