Pushdown Automata

CS 311, Fall 2015

Exercise 1

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

$$S \rightarrow aSb \mid bY \mid Ya$$
$$Y \rightarrow bY \mid Ya \mid \varepsilon$$

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.)

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.)