

Assignment 6, due 3/5/2020 in class

Consider the following context-free grammar:

$$\begin{aligned} S &\rightarrow JC \mid K \\ J &\rightarrow aJb \mid \varepsilon \\ C &\rightarrow cC \mid \varepsilon \\ K &\rightarrow aKc \mid B \\ B &\rightarrow bB \mid \varepsilon \end{aligned}$$

The strings that can be derived from B are b^* .

The strings that can be derived from J are $\{a^n b^n \mid n \geq 0\}$.

1. What are the strings generated from C ?
2. What are the strings generated from K ?
3. What are the strings generated from the start symbol S ?
4. Build a PDA for the context-free grammar.
5. Simulate your pushdown automaton for the first 6 transitions of an accepting computation of $aabbcc$. You need to include for each step, the current state, the input left to read and the contents of the stack.