Theory of Computation, CSCI 438 spring 2022 Pushdown automaton, pages 111-116, Feb. 23

1. Create a PDA that recognizes the language $L=\{a^nb^n \mid n\geq 0\}$.

2. Create a PDA that recognizes the language $L=\{w\mid w\in\{a,b\}^* \text{ such that } w \text{ starts and ends with the same symbol}\}.$

3. Create a PDA that recognizes the language $L=\{a^ib^jc^k\mid i,j,k\geq 0 \text{ and } i=j \text{ or } j=k\}.$

2.6 b Give a PDA for the complement of the language $\{a^nb^n\mid n{\ge}0\}$