Report

Siddharth Jain
2020113014

Q3. Minimization of DFA: First we partition the DFA into 2 sets accepting and non-accepting ones. Then we check if each set is distinguishable and if the 2 states do not have similar transitions we put them in a new set. We update them till we have all distinguishable sets. Then we merge all nodes within the same set as one and the DFA is minimized with equal number of sets.

Q4. REGEX to NFA: Convert the given infix function to postfix form. Then convert it into an NFA using a stack and the value of n, k and a are outputted along with the transition states and accepting states.

To run the program use: ./a.out < input file > < output file >

Where the files are already present in the directory