Rajat Sethi – CPSC 3500 – Assignment 3

Application

Description automatically generated with low confidence

1. Icon

   Description automatically generated

3a.) 1100

3b.) 1111

3c.) This FA accepts all strings of language {0, 1} that does not end with a “1” (Excluding the empty string)

4a.)

//If the regex contains a “\*”, then the language is infinite.

4b.)

//Check every node on the NTM using recursion, with an extra parameter that contains a list of all the previous nodes that were visited.

//If that list contains any repeat nodes, then perform the following check.

//If that path is not in a reject trap and the path does not have ONLY e-transitions, then the language is infinite.

//To find the reject trap, use recursion on every node that is inside the loop and look for an accept state. If it cannot find any path out of the loop, then the path is a reject trap and must continue the original search.