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February 8, 2015

Project 1 Report

I used C++ and tested the code on Linux machines. STL “map” was used to store the different transitions for efficient lookups, and “set” was used to store all the states that can be reached by the input at each step. The tape input I used to test the first test case is shown below.

7
0

0,1
0,0,0,0,0
0,1,0,1,0,1
0,0,0,1,0,1,0,1,0,1
0,1,0,1,0

The program succeeds if the first six cases yields “ACCEPT” but the last one yields “REJECT,” and fails otherwise.

The tape input I used to test the second test case is shown below.

5
0,1,1,1,1,1
0

0,1
0,1,1,1,0

The program succeeds if the first four cases yields “ACCEPT” but the last one yields “REJECT,” and fails otherwise.