

CSC231 Project1

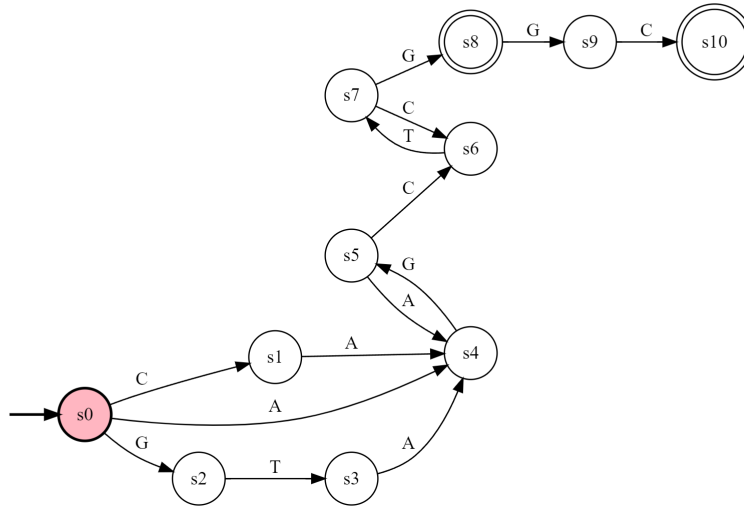
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The following figure is the graphical representation of my finite state machine.

③ Transition graph

The FSM being simulated is displayed in the form of a transition graph. The nodes representing the current states of the FSM are colored in .



Explanation

Based on the figure, s0 is the starting state. I did not include an explicit trash state but every letter in each state without rules goes into trash state.

1. s1 state checks the optional C at the beginning of the words
2. s2 and s3 check the optional GT at the beginning of the words.
3. s4 and s5 is the loop that check containing one or more instances of AG.
4. s6 and s7 use the loop to check whether contains one or more instances of CT.
5. s8 checks whether it contains only one G.
6. s9 and s10 check the optional GC at the end of the words.

Three Additional Words

Three additional words that are in part of the language will be:

1. GTAGAGAGCTCTCTG
2. AGAGCTCTGGC
3. AGCTGGC

Three additional words that are NOT part of the language will be:

1. T
2. GTAGCTT
3. GTAGCTCTGGT