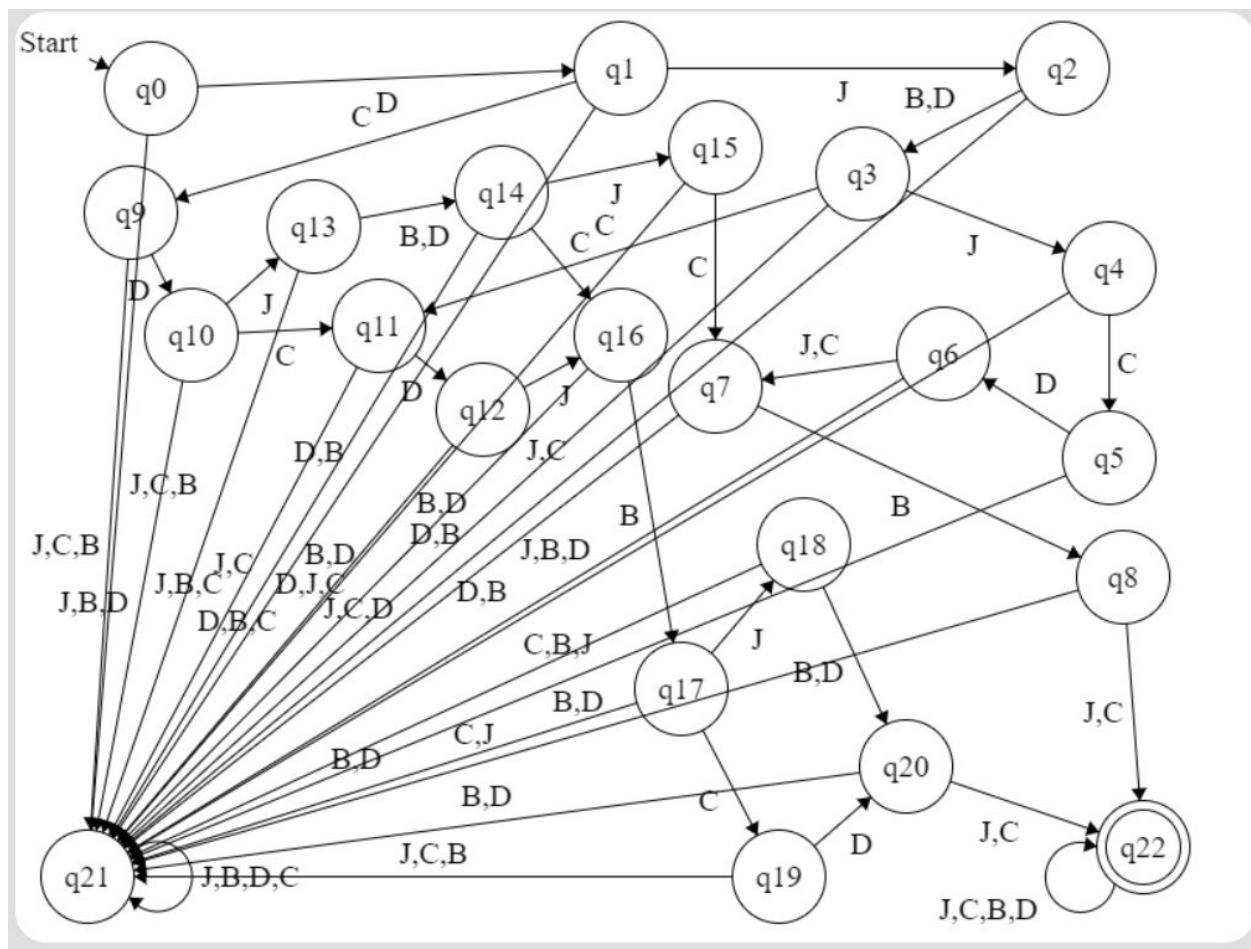


Herbert Glaser
3/31/19
Milestone report

For my project I have decided to recreate a difficult fight from the game called Punch-Out!. Punch-Out! Is a boxing game where you must do things such as punch and dodge to defeat your opponent and become the champion. To simulate this fight I have decided to allow the person to choose from 4 different commands being jab, crosspunch, dodge, and block. These are symbolized as J,C,D, and B. To simulate the original Punch-Out! Final boss being Mike Tyson I gave the player guidelines to defeat him. This fight is very difficult so to defeat him you must follow the rules at the end of the report. If any of these guidelines are broken then you will get attacked and immediately lose the match. In the original Punch-Out! if Mike Tyson hits you even once within the first minute and a half of the fight you get knocked out. I made this mock-up of the game similar to the man,goat,wolf,cabbage puzzle and that you must make decisions based on the situation. In total there are 4 different paths you can take 3 of them being longer paths and one of them being a minor split as shown in the diagram. In this milestone of the project in order to win the game you must hit Mike Tyson 6 times. Later on I plan on making it so that you have to hit him more and I may add more commands such as Uppercuts, fakes, and star punches like the original game. For this milestone I made it so that if you make any incorrect move you instantly get knocked out but in the future I plan on making it so that if you take a more defensive approach to the game you won't be punished for it. Depending on your playstyle you can manipulate Mike into doing things that will lead you to hit him how you want to such as using Crosses instead of Jabs more often makes Mike use specific attacks making it so you know to dodge rather than trying to remember to block or not. The fight is complicated but that's how it was in the original game as well you really have to think about your approach to defeating the most terrifying person in the ring.



This is the DFA diagram with the error state

This is the state Transition table for the milestone report

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State Transition Table		B	D	J	C
	q0	q21	q1	q21	q21
	q1	q21	q21	q2	q9
	q2	q3	q3	q21	q21
	q3	q21	q21	q4	q11
	q4	q21	q21	q21	q5
	q5	q21	q6	q21	q21
	q6	q21	q21	q7	q7
	q7	q8	q21	q21	q21
	q8	q21	q21	q22	q22
	q9	q21	q10	q21	q21
	q10	q21	q21	q13	q11
	q11	q21	q12	q21	q21
	q12	q21	q21	q16	q21
	q13	q14	q14	q21	q21
	q14	q21	q21	q15	q16
	q15	q21	q21	q21	q7
	q16	q17	q21	q21	q21
	q17	q21	q21	q18	q19
	q18	q20	q20	q21	q21
	q19	q21	q20	q21	q21
	q20	q21	q21	q22	q22
	q21	q21	q21	q21	q21
	q22	q22	q22	q22	q22