Project 1

Ogbondah, Chimzim

During the course of this project I was able to get a better understanding of the backward and forward pass algorithms for the enumeration. I understood that the forward pass would always take the 1-route but I didn’t understand how all the paths could be reached this way but upon implementing the forward and backward pass I was able to see when I was debugging and saw how the backward pass sets the forward pass back up to take a different route from before. (taking false edge of branch node and sending to forward pass).

Through the course of this project I would say I spent about an hour reading the both the project guide and the project document and understanding the algorithms from lecture. Importing the project was easy for me, I have importing, and indexing memorized so I didn’t have to follow any guidance on that aspect. I would also say I spent about 30 minutes to an hour understanding the code and what each TODO section was asking me to implement. Writing the required code took me about 2 hours. I followed the lecture pseudocode as best as I could but I also had to look to Piazza for some help on 1-0 successors and looping (recursion). Debugging and verifying took me the longest time with about 4 hours spent. I had to spend time stepping through so I could see what was really happening. In the end I changed my comparisons to .equals() the predecessors to .peek() of the stack and my successor to be the 1-0.to() rather than the common.toQ() from the DAG because I noticed it was causing issues. Exporting the code was fairly easy as well to thanks to the project guide and so that only took me 5 minutes. Finally, writing the report took me about 15 minutes to talk about my progress from beginning to end and then importing everything.

Screenshots of Enumeration Algorithm:

**Dswrite:**

Graphical user interface, text, application

Description automatically generated

**Dskenq:**

Text, letter

Description automatically generated

**Dskqopt:**

Scatter chart

Description automatically generated

**ExportResults.export**

Graphical user interface, application, table, Excel

Description automatically generated