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1001541467.zip should contain:

- DistanceVectorRouting.py
- network.txt

This program can be run with python3 and should run with the command:

- "python3 DistanceVectorRouting.py network.txt"

Where "network.txt" is the network that is being simulated

There are many options that you can choose from during the program's runtime.

- "show nodes"

This option will print out all current Nodes or Routers in the network

- "show network"

This option will print out all current Nodes or Routers as well as any connections to other routers and their cost

- "optimize routes"

This option would optimize the network, but I was not able to get the algorithm to work properly

- "simulate network"

This option allows you to simulate sending a packet from one node to another, the time it takes for the packet to send depends on the cost between the two nodes, .1 seconds for each cost unit. The two options in the simulation are "send packet" and "exit". "send packet" allows for a source and destination node to be chosen and then simulates a packet being sent. "exit" leaves the simulation.

- "Exit"

This option allows the user to quit out of the program

I was unable to properly get my network optimization algorithm to work, so I had to omit the code from the program so it would run without it crashing. The rest of the code should work with an optimized code however, if a more optimized network was to be imputed on started