DVRTest

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To run this program the user must navigate to the directory where the java class “DVRTest.class” and “Router.class” are located in the terminal and then enter “java DVRTest”. The program will then ask you how many routers are in the topography, enter a number between 1 and 26 and press enter. The program will then ask you the delay between each node. Please enter “-1” if these two nodes aren’t neighbors. When this is done, the program will print out a matrix showing the info you entered. If this looks right, enter “1” to proceed, if not enter “2” to reenter your info. It will then run the DVR algorithm N times where N is the amount of routers in the virtual network. Every time a step has completed, it will print out the routing tables. The final routing tables will be the printed out at the end.

The code is structured into two classes “Router.java” and “DVRTest.java”. The Router.java file is an object that is a runnable thread and contains all the info that a router would know when completing this protocol. The DVRTest.java class is a driver that takes user input and creates Router objects accordingly and servers as an in-between for the Router objects to communicate. It keeps these threads in an array. The threads communicate by sending a copy of their info to the neighboring threads.