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CCN Project 3

Distance Vector Routing Protocol

The shortest path is calculated by performing distance vector routing protocol. The following is the basis of this routing protocol

Let dx(y) = Least cost path from x to y,

Then, **dx(y) = min {c(x, v)+ dv(y)}**

Where,

C(x,v) is the minimum distance to the neighbor v.

Dv(y) is the cost from v to destination y

Steps to Execute:

Download all the files in a folder.

Go inside that folder and run the below commands

Compile all the files using Java Command

Javac *.java

Since I am using Multicase address give same port number

Format: java DVRStarter <port number> <filename>

DVRStarter : Main class to execute the program.

Input:

a.dat

b.dat

c.dat

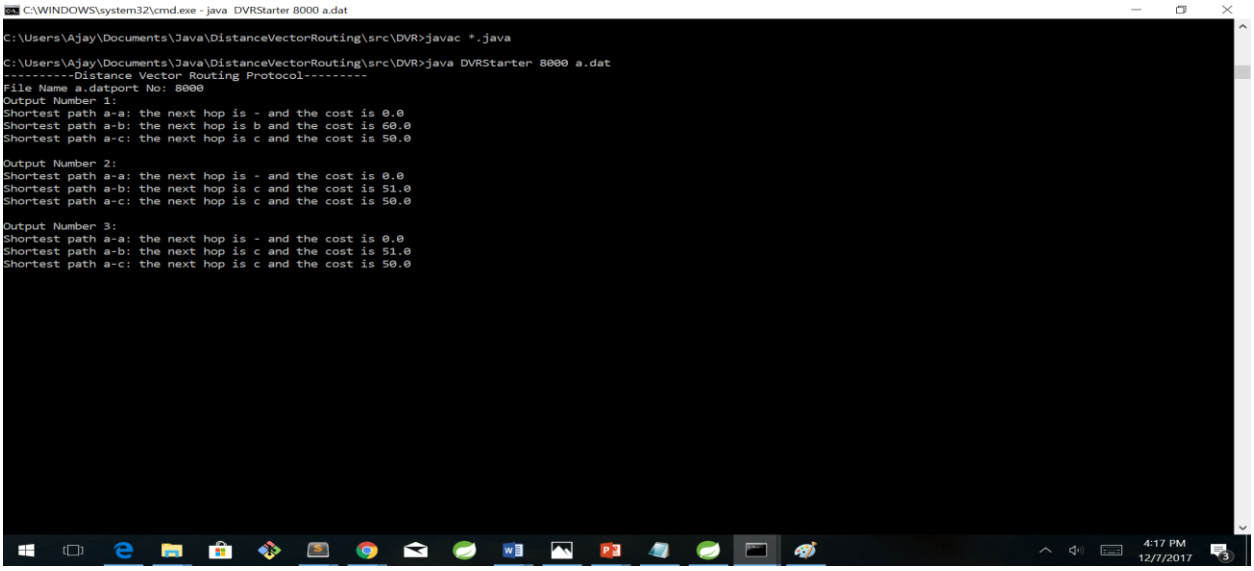
Commands for above 3 files:

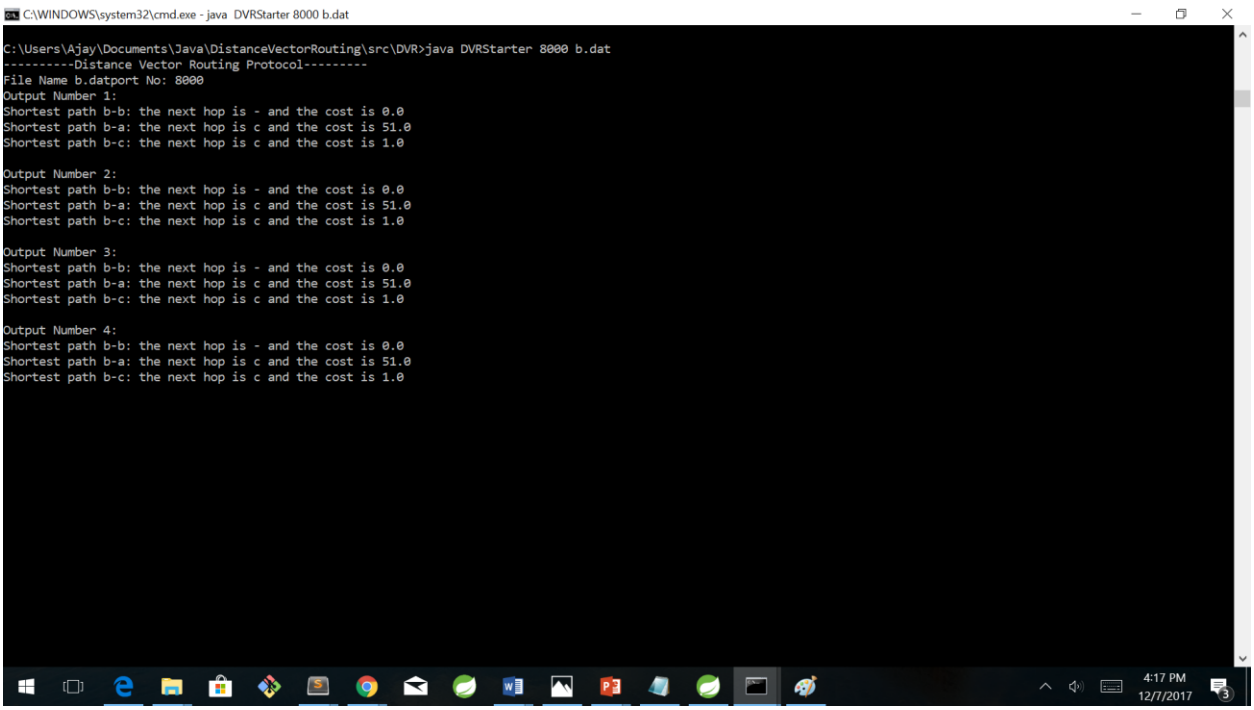
Javac *.java

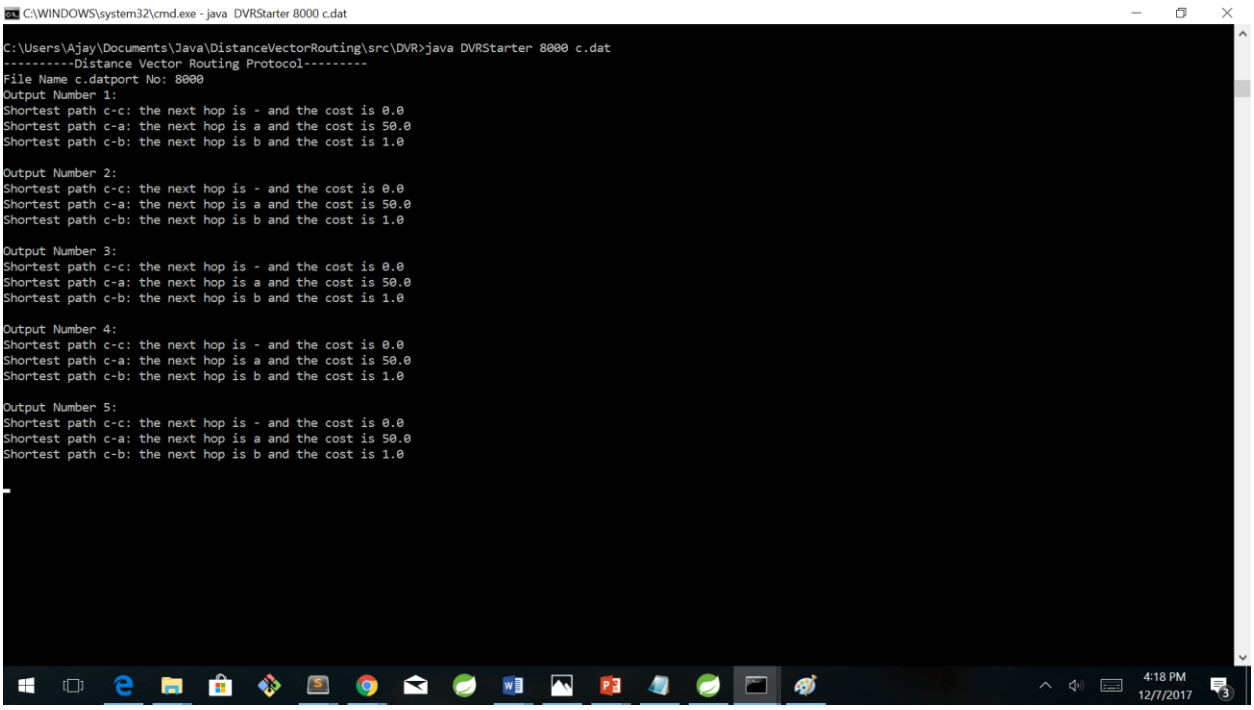
java DVRStarter 8000 a.dat

java DVRStarter 8000 b.dat

java DVRStarter 8000 c.dat






C:\WINDOWS\system32\cmd.exe - java DVRStarter 8000 c.dat
C:\Users\Ajay\Documents\Java\DistanceVectorRouting\src\DVR>java DVRStarter 8000 c.dat
----------Distance Vector Routing Protocol---------
File Name c.datport No: 8000
Output Number 1:
Shortest path c-c: the next hop is - and the cost is 0.0
Shortest path c-a: the next hop is a and the cost is 50.0
Shortest path c-b: the next hop is b and the cost is 1.0
Output Number 2:
Shortest path c-c: the next hop is - and the cost is 0.0
Shortest path c-a: the next hop is a and the cost is 50.0
Shortest path c-b: the next hop is b and the cost is 1.0
Output Number 3:
Shortest path c-c: the next hop is - and the cost is 0.0
Shortest path c-a: the next hop is a and the cost is 50.0
Shortest path c-b: the next hop is b and the cost is 1.0
Output Number 4:
Shortest path c-c: the next hop is - and the cost is 0.0
Shortest path c-a: the next hop is a and the cost is 50.0
Shortest path c-b: the next hop is b and the cost is 1.0
Output Number 5:
Shortest path c-c: the next hop is - and the cost is 0.0
Shortest path c-a: the next hop is a and the cost is 50.0
Shortest path c-b: the next hop is b and the cost is 1.0
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