Project 2 - Distance Vector Routing Algorithms and Simulation

Team members:

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Below is the output of the executed code.

Each entity is colour coded with a specific colour as below.

Steps to execute:

- 1. Copy the src folder in the zip file and extract it to a local path.
- 2. Open command prompt in that folder and compile the file Project.java using below command.
 - javac –Xlint Project.java
- 3. Run the file Project.java using below command. java Project
- 4. It will prompt you for values of trace level (0 to 2), will the link change (0 or 1) and random seed (1 to 4). Input the appropriate values.
- 5. The output of the executed code will be displayed as a HTML file on your browser. The output HTML file will be saved in C:\CCN directory.

Execution:

Compiling 1 source file to C:\Users\\$ VIJAY \$\Documents\NetBeansProjects\New Folder\CCN_Proj2\build\classes compile:

run:

Network Simulator v1.0

Enter trace level (≥ 0): [0] 0

Will the link change (1 = Yes, 0 = No): [0] 1

Enter random seed: [random] 1

BUILD SUCCESSFUL (total time: 7 seconds)

Output:

Entity0 is called at t = 21:57:21:872 Entity1 is called at t = 21:57:21:932 Entity2 is called at t = 21:57:21:942 Entity3 is called at t = 21:57:21:942 rtupdate0 is called at t = 21:57:21:872 node 0 is receiving packet from node 2 Node 0's distance table updated.

		via	
D 0	1	2	3
1	1	4	999
2	999	3	999
3	999	999	7

Node 0's distance table updated.

		via	
D 0	1	2	3
1	1	4	999
2	999	3	999
3	999	5	7

Due to vector change, Packet is being sent to node 1 from Node 0.

Due to vector change, Packet is being sent to node 2 from Node 0.

Due to vector change, Packet is being sent to node 3 from Node 0.

rtupdate3 is called at t= 21:57:21:942 node 3 is receiving packet from node 0 Node 3's distance table updated.

	V	ia
D 3	0	2
0	7	999
1	8	999

2	999	2

Node 3's distance table updated.

	via	
D 3	0	2
0	7	999
1	8	999
2	10	2

Due to vector change, Packet is being sent to node 0 from Node 3. Due to vector change, Packet is being sent to node 2 from Node 3.

rtupdate0 is called at t= 21:57:21:872 node 0 is receiving packet from node 1 Node 0's distance table updated.

		via	
D 0	1	2	3
1	1	4	999
2	2	3	999
3	999	5	7

Due to vector change, Packet is being sent to node 1 from Node 0.

Due to vector change, Packet is being sent to node 2 from Node 0.

Due to vector change, Packet is being sent to node 3 from Node 0.

rtupdate2 is called at t= 21:57:21:942 node 2 is receiving packet from node 0 Node 2's distance table updated.

		via	
D 2	0	1	3
0	3	999	999
1	4	1	999
3	999	999	2

Node 2's distance table updated.

		via	
D 2	0	1	3
0	3	999	999
1	4	1	999
3	10	999	2

rtupdate3 is called at t= 21:57:21:942 node 3 is receiving packet from node 0 rtupdate1 is called at t= 21:57:21:932 node 1 is receiving packet from node 0 Node 1's distance table updated.

	via	
D 1	0	2
0	1	999
2	4	1
3	999	999

Node 1's distance table updated.

	via	
D 1	0	2
0	1	999
2	4	1
3	8	999

Due to vector change, Packet is being sent to node 0 from Node 1. Due to vector change, Packet is being sent to node 2 from Node 1.

rtupdate2 is called at t= 21:57:21:942 node 2 is receiving packet from node 0 Node 2's distance table updated.

		via	
D 2	0	1	3
0	3	999	999
1	4	1	999
3	8	999	2

rtupdate3 is called at t= 21:57:21:942 node 3 is receiving packet from node 0 Node 3's distance table updated.

	via		
D 3	0	2	
0	7	999	
1	8	999	
2	9	2	

rtupdate2 is called at t= 21:57:21:942 node 2 is receiving packet from node 3 Node 2's distance table updated.

		via	
D 2	0	1	3
0	3	999	9
1	4	1	999
3	8	999	2

rtupdate3 is called at t= 21:57:21:942 node 3 is receiving packet from node 2 Node 3's distance table updated.

	via		
D 3	0	2	
0	7	5	
1	8	999	
2	9	2	

Node 3's distance table updated.

	V	via	
D 3	0	2	
0	7	5	
1	8	3	
2	9	2	

Due to vector change, Packet is being sent to node 0 from Node 3. Due to vector change, Packet is being sent to node 2 from Node 3.

rtupdate0 is called at t= 21:57:21:872 node 0 is receiving packet from node 3 Node 0's distance table updated.

		via	
D 0	1	2	3
1	1	4	999
2	2	3	9
3	999	5	7

rtupdate1 is called at t= 21:57:21:932 node 1 is receiving packet from node 2 Node 1's distance table updated.

	via		
D 1	0 2		
0	1	4	
2	4	1	
3	8	999	

Node 1's distance table updated.

	v	ia
D 1	0	2
0	1	4
2	4	1



Due to vector change, Packet is being sent to node 0 from Node 1. Due to vector change, Packet is being sent to node 2 from Node 1.

rtupdate2 is called at t= 21:57:21:942 node 2 is receiving packet from node 1 Node 2's distance table updated.

	via		
D 2	0	1	3
0	3	2	9
1	4	1	999
3	8	999	2

Due to vector change, Packet is being sent to node 0 from Node 2. Due to vector change, Packet is being sent to node 1 from Node 2. Due to vector change, Packet is being sent to node 3 from Node 2.

rtupdate2 is called at t= 21:57:21:942 node 2 is receiving packet from node 3 Node 2's distance table updated.

	via		
D 2	0	1	3
0	3	2	9
1	4	1	10
3	8	999	2

rtupdate2 is called at t= 21:57:21:942 node 2 is receiving packet from node 1 Node 2's distance table updated.

		via	
D 2	0	1	3
0	3	2	9
1	4	1	10
3	8	9	2

rtupdate0 is called at t= 21:57:21:872 node 0 is receiving packet from node 1 Node 0's distance table updated.

	via		
D 0	1	2	3
1	1	4	999
2	2	3	9
3	9	5	7

rtupdate1 is called at t= 21:57:21:932 node 1 is receiving packet from node 2 Node 1's distance table updated.

	via	
D 1	0	2
0	1	3
2	4	1
3	8	3

rtupdate1 is called at t= 21:57:21:932 node 1 is receiving packet from node 0 Node 1's distance table updated.

	via	
D 1	0	2
0	1	3
2	4	1
3	6	3

rtupdate0 is called at t= 21:57:21:872 node 0 is receiving packet from node 1 Node 0's distance table updated.

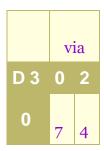
		via	a
D 0	1	2	3
1	1	4	999
2	2	3	9
3	4	5	7

Due to vector change, Packet is being sent to node 1 from Node 0.

Due to vector change, Packet is being sent to node 2 from Node 0.

Due to vector change, Packet is being sent to node 3 from Node 0.

rtupdate3 is called at t= 21:57:21:942 node 3 is receiving packet from node 2 Node 3's distance table updated.



1	8	3
2	9	2

Due to vector change, Packet is being sent to node 0 from Node 3. Due to vector change, Packet is being sent to node 2 from Node 3.

rtupdate0 is called at t= 21:57:21:872 node 0 is receiving packet from node 3 Node 0's distance table updated.

		via	
D 0	1	2	3
1	1	4	15
2	2	3	9
3	4	5	7

rtupdate2 is called at t= 21:57:21:942 node 2 is receiving packet from node 0 rtupdate3 is called at t= 21:57:21:942 node 3 is receiving packet from node 0 rtupdate0 is called at t= 21:57:21:872 node 0 is receiving packet from node 2 rtupdate2 is called at t= 21:57:21:942 node 2 is receiving packet from node 1 Node 2's distance table updated.

		via	
D 2	0	1	3
0	3	2	9
1	4	1	10
3	8	4	2

rtupdate2 is called at t= 21:57:21:942

node 2 is receiving packet from node 3 Node 2's distance table updated.

		via	
D 2	0	1	3
0	3	2	7
1	4	1	10
3	8	4	2

Node 2's distance table updated.

	via		
D 2	0	1	3
0	3	2	7
1	4	1	5
3	8	4	2

rtupdate1 is called at t= 21:57:21:932 node 1 is receiving packet from node 0 Node 1's distance table updated.

	via	
D 1	0	2
0	1	3
2	3	1
3	6	3

rtupdate2 is called at t= 21:57:21:942

node 2 is receiving packet from node 0 Node 2's distance table updated.

		via	
D 2	0	1	3
0	3	2	7
1	4	1	5
3	7	4	2

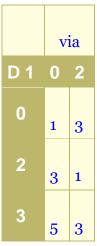
rtupdate0 is called at t= 21:57:21:872 node 0 is receiving packet from node 3 Node 0's distance table updated.

		via	
D 0	1	2	3
1	1	4	10
2	2	3	9
3	4	5	7

rtupdate2 is called at t= 21:57:21:942 node 2 is receiving packet from node 3 Node 2's distance table updated.

		via	
D 2	0	1	3
0	3	2	6
1	4	1	5
3	7	4	2

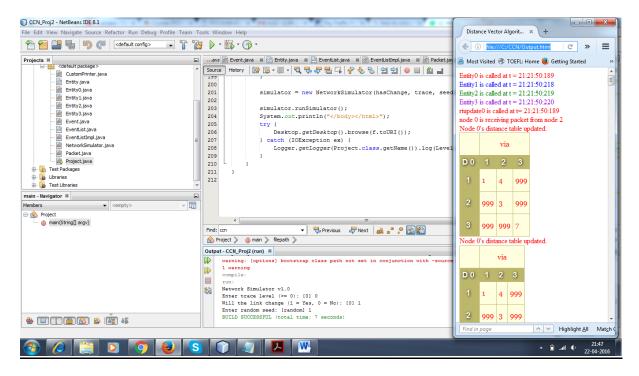
rtupdate1 is called at t= 21:57:21:932 node 1 is receiving packet from node 0 Node 1's distance table updated.



rtupdate0 is called at t= 21:57:21:872 node 0 is receiving packet from node 3

Simulator terminated at t=10000.0, no packets in medium.

Screenshots:



Final Tables:

		via	
D 0	1	2	3
1	1	4	10
2	2	3	9
3	4	5	7

	via	
D 1	0	2
0	1	3
2	3	1
3	5	3

	via		
D 2	0	1	3
0	3	2	6
1	4	1	5
3	7	4	2

	Via	
D 3	0	2
0	7	4
1	8	3
2	9	2