WEEK-9

**AIM:**

To implement Link state routing algorithm using NS2 Simulation Tool.

**SOFTWARE USED:**

NS2

**PROCEDURE:**

1.Create a simulator object

2. Define different colors for different data flows

3. Open a nam trace file and define finish procedure then close the trace file, and execute nam on trace

file.

4. Create n number of nodes using for loop

5. Create duplex links between the nodes

6. Setup UDP Connection between n(0) and n(5)

7. Setup another UDP connection between n(1) and n(5)

8. Apply CBR Traffic over both UDP connections

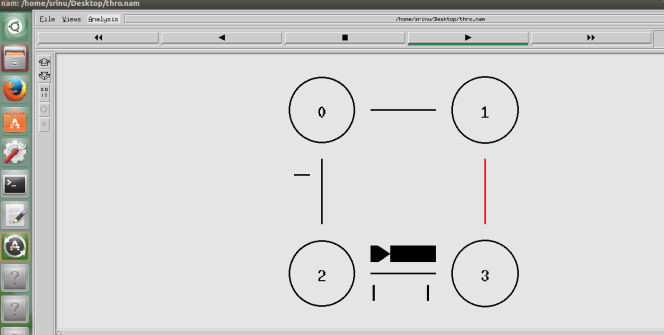
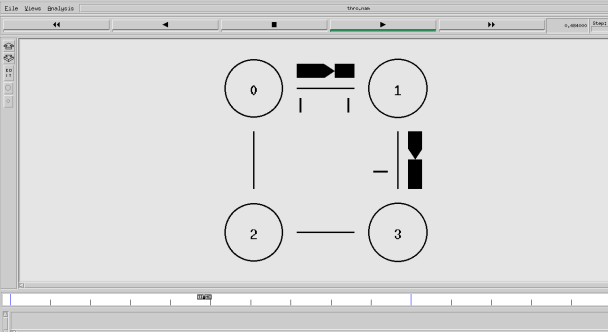
9. Choose LINK STATE routing protocol to transmit data from sender to receiver.

10. Schedule events and run the program.

**IMPLEMENTATION:**

set ns [new Simulator]  
set nf [open thro.nam w]  
$ns namtrace-all $nf  
set n0 [$ns node]  
set n1 [$ns node]  
set n2 [$ns node]  
set n3 [$ns node]  
$ns duplex-link $n0 $n1 1Mb 10ms DropTail  
$ns duplex-link $n1 $n3 1Mb 10ms DropTail  
$ns duplex-link $n0 $n2 1Mb 10ms DropTail  
$ns duplex-link $n2 $n3 1Mb 10ms DropTail  
$ns duplex-link-op $n0 $n1 orient right  
$ns duplex-link-op $n0 $n2 orient down  
$ns duplex-link-op $n2 $n3 orient right  
$ns duplex-link-op $n1 $n3 orient down  
set tcp [new Agent/TCP]  
$tcp set class\_ 1  
$ns attach-agent $n0 $tcp  
set sink [new Agent/TCPSink]  
$ns attach-agent $n3 $sink  
$ns connect $tcp $sink  
set ftp [new Application/FTP]  
$ftp attach-agent $tcp  
$ns rtproto LS  
$ns at 0.05 "$ftp start"  
$ns rtmodel-at 1.0 down $n1 $n3  
$ns at 1.5 "finish"  
proc finish { } {  
global ns nf  
 $ns flush-trace  
close $nf  
exec nam thro.nam &  
exit 0  
 }  
$ns run

**OUTPUT:**

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