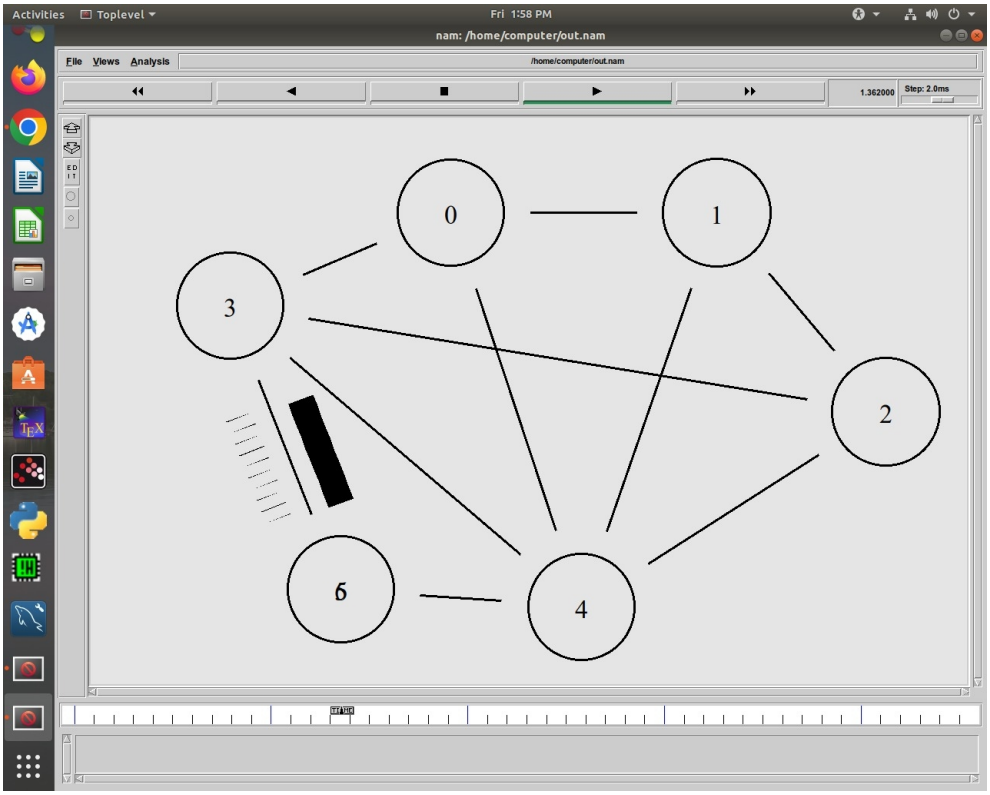
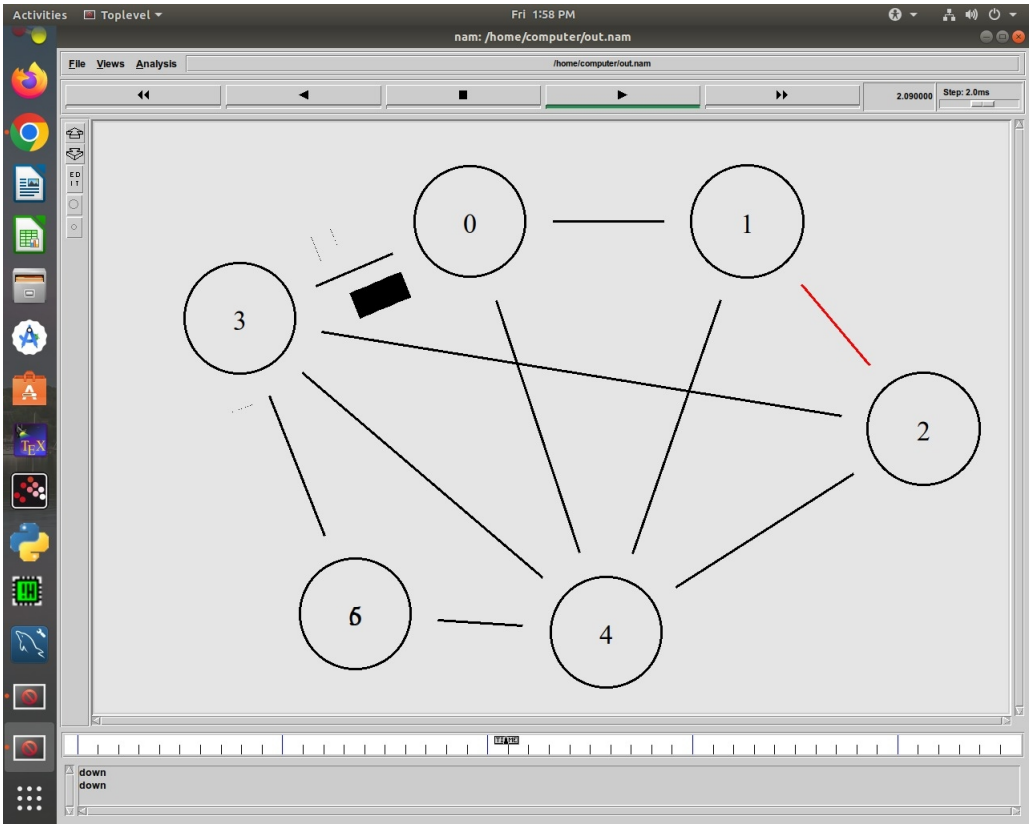
Program:

```
set ns [new Simulator]

$ns rtproto DV

#Open the NAM trace file
set nf [open out.nam w]
$ns namtrace-all $nf

#Define a 'finish' procedure
proc finish {} {
        global ns nf
        $ns flush-trace
        #Close the NAM trace file
        close $nf
        #Execute NAM on the trace file
        exec nam out.nam &
        exit 0
}

#Create four nodes
set n0 [$ns node]
set n1 [$ns node]
set n2 [$ns node]
set n3 [$ns node]
set n4 [$ns node]
set n5 [$ns node]
set n6 [$ns node]

#Create links between the nodes
$ns duplex-link $n0 $n1 10Mb 10ms DropTail
$ns duplex-link $n1 $n2 10Mb 10ms DropTail
$ns duplex-link $n2 $n3 10Mb 10ms DropTail
$ns duplex-link $n3 $n4 10Mb 10ms DropTail
$ns duplex-link $n3 $n0 10Mb 10ms DropTail
$ns duplex-link $n0 $n4 10Mb 10ms DropTail
$ns duplex-link $n4 $n2 10Mb 10ms DropTail
$ns duplex-link $n1 $n4 10Mb 10ms DropTail
$ns duplex-link $n4 $n3 10Mb 10ms DropTail
$ns duplex-link $n4 $n5 10Mb 10ms DropTail
$ns duplex-link $n3 $n5 10Mb 10ms DropTail
$ns duplex-link $n4 $n6 10Mb 10ms DropTail
$ns duplex-link $n3 $n6 10Mb 10ms DropTail

#Give node position (for NAM)
$ns duplex-link-op $n0 $n1 orient right
$ns duplex-link-op $n1 $n2 orient down
$ns duplex-link-op $n2 $n3 orient left
$ns duplex-link-op $n3 $n0 orient right
$ns duplex-link-op $n0 $n4 orient right-down
$ns duplex-link-op $n4 $n2 orient right-down
```

```
$ns duplex-link-op $n1 $n4 orient left-down
$ns duplex-link-op $n4 $n3 orient left-down
$ns duplex-link-op $n4 $n5 orient left-down
$ns duplex-link-op $n3 $n5 orient left-down
$ns duplex-link-op $n4 $n6 orient left-down
$ns duplex-link-op $n3 $n6 orient left-down

#Setup a TCP connection
set tcp [new Agent/TCP]
$tcp set class_ 2
$ns attach-agent $n0 $tcp
set sink [new Agent/TCPSink]
$ns attach-agent $n5 $sink
$ns connect $tcp $sink
$tcp set fid_ 1

#Setup a FTP over TCP connection
set ftp [new Application/FTP]
$ftp attach-agent $tcp
$ftp set type_ FTP
$ftp set packet_size_ 1000
$ftp set rate_ 1mb

$ns at 1.0 "$ftp start"
$ns rtmodel-at 2.0 down $n1 $ n2
$ns rtmodel-at 3.0 up $n1 $ n2
$ns at 4.0 "$ftp stop"

$ns at 5.0 "finish"

#Run the simulation
$ns run
```

output:


Activities
Toplevel
Fri 1:58 PM
nam: /home/computer/out.nam
File Views Analysis
/home/computer/out.nam
1.362000
Step: 2.0ms
0
1
2
3
4
6


Activities
Toplevel
Fri 1:58 PM
nam: /home/computer/out.nam
File Views Analysis
/home/computer/out.nam
2.090000
Step: 2.0ms
0
1
2
3
4
6
down
down