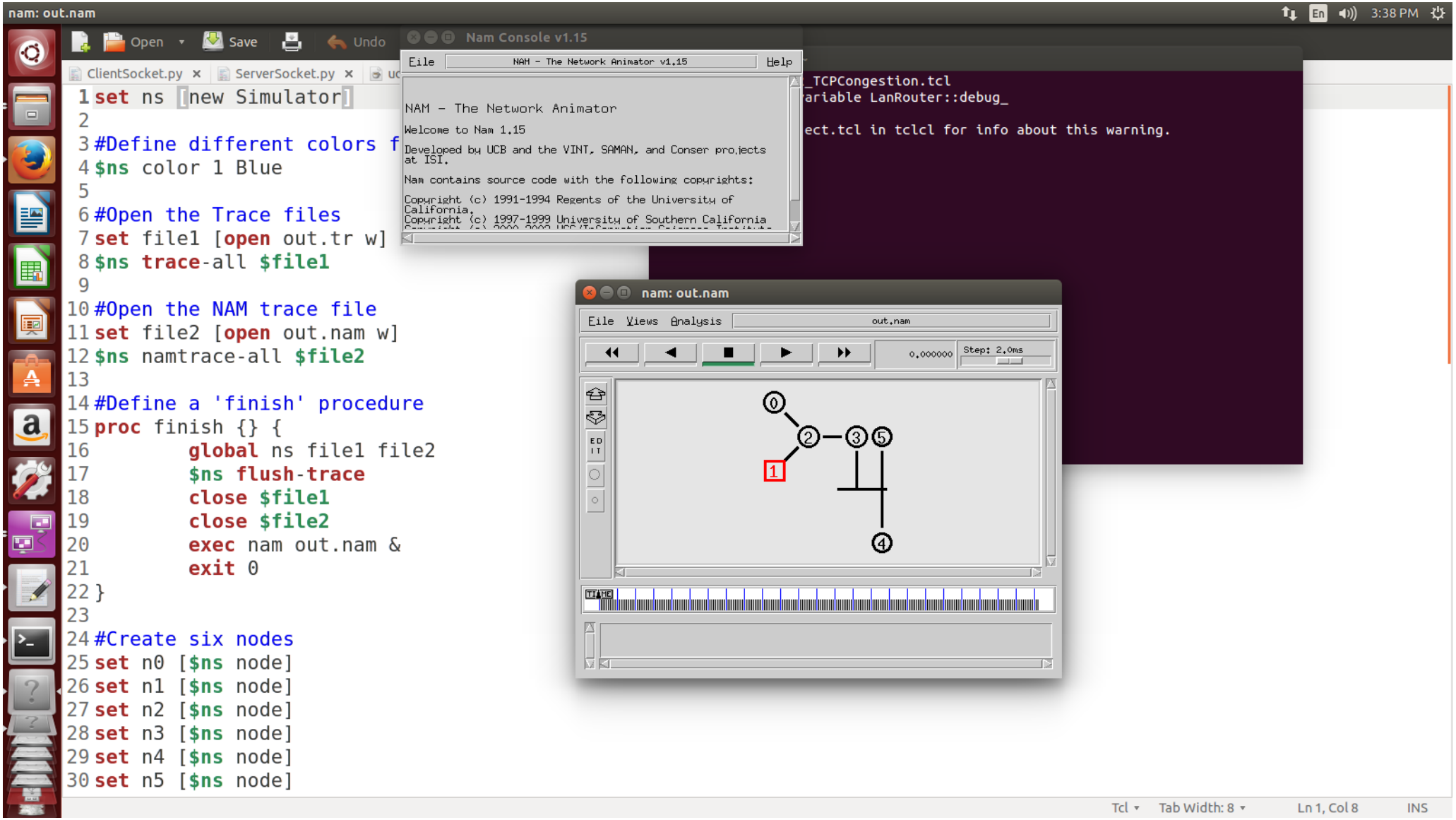
EXPERIMENT NO : 11 | NET SIMULATOR 2



```
set ns [new Simulator]

#Define different colors for data flows (for NAM)
$ns color 1 Blue

#Open the Trace files
set file1 [open out.tr w]
$ns trace-all $file1

#Open the NAM trace file
set file2 [open out.nam w]
$ns namtrace-all $file2

#Define a 'finish' procedure
proc finish {} {
        global ns file1 file2
        $ns flush-trace
        close $file1
        close $file2
        exec nam out.nam &
        exit 0
}

#Create six 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]

$n1 color red
$n1 shape box

#Create links between the nodes
$ns duplex-link $n0 $n2 2Mb 10ms DropTail
$ns duplex-link $n1 $n2 2Mb 10ms DropTail
$ns duplex-link $n2 $n3 2Mb 10ms DropTail
```

```
$ns duplex-link-op $n0 $n2 orient right-down
$ns duplex-link-op $n1 $n2 orient right-up
$ns duplex-link-op $n2 $n3 orient right

set lan [$ns newLan "$n3 $n4 $n5" 0.5Mb 40ms LL Queue/DropTail MAC/Csma/Cd Channel]

#Set Queue Size of link (n2-n3) to 10
$ns queue-limit $n2 $n3 10

#Setup a TCP connection
set tcp [new Agent/TCP]
$ns attach-agent $n0 $tcp
set sink [new Agent/TCPSink]
$ns attach-agent $n4 $sink
$ns connect $tcp $sink
$tcp set fid_ 1
$tcp set packetSize_ 552

#Setup a FTP over TCP connection
set ftp [new Application/FTP]
$ftp attach-agent $tcp

$ns at 0.1 "$ftp start"
$ns at 124.5 "$ftp stop"


proc plotting {tcpsource file3} {
            global ns
            set conges [$tcpsource set cwnd_]
     set now [$ns now]
    puts $file3 "$now $conges"
   $ns at [expr $now+0.1] "plotting $tcpsource $file3"
}
set print [open tcpconges.xg w]
$ns at 1.0 "plotting $tcp $print"
$ns at 125.0 "finish"
$ns run
```