Installing NS2
sudo apt-get install ns2
sudo apt-get install nam
sudo apt-get install tcl

Running this file -
Save this file as filename.tcl
On terminal,
ns filename.tcl
(or use sudo ns filename.tcl)

#Create a simulator object
set ns [new Simulator]
#Open trace files
set f [open out.tr w]
$ns trace-all $f

set nf [open test2.nam w]
$ns namtrace-all $nf

#Define a 'finish' procedure
proc finish {} {
global ns
$ns flush-trace
exit 0
}
#Create four nodes
set s1 [$ns node]
set s2 [$ns node]
set s3 [$ns node]
set G [$ns node]
set r [$ns node]

#Create links between the nodes
$ns duplex-link $s1 $G 1Mb 10ms DropTail
$ns duplex-link $s2 $G 1Mb 10ms DropTail
$ns duplex-link $s3 $G 1Mb 10ms SFQ
$ns duplex-link $G $r 1Mb 10ms SFQ

#Create a TCP agent and attach it to node s1
set tcp1 [new Agent/TCP/Reno]
$ns attach-agent $s1 $tcp1
$tcp1 set window_ 8
$tcp1 set fid_ 1

#Create a TCP agent and attach it to node s2

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set tcp2 [new Agent/TCP/Reno]
$ns attach-agent $s2 $tcp2
$tcp2 set window_ 8
$tcp2 set fid_ 2

#Create a TCP agent and attach it to node s3
set tcp3 [new Agent/TCP/Reno]
$ns attach-agent $s3 $tcp3
$tcp3 set window_ 4
$tcp3 set fid_ 3

#Create TCP sink agents and attach them to node r
set sink1 [new Agent/TCPSink]
set sink2 [new Agent/TCPSink]
set sink3 [new Agent/TCPSink]
$ns attach-agent $r $sink1
$ns attach-agent $r $sink2
$ns attach-agent $r $sink3

#Connect the traffic sources with the traffic sinks
$ns connect $tcp1 $sink1
$ns connect $tcp2 $sink2
$ns connect $tcp3 $sink3

#Create FTP applications and attach them to agents
set ftp1 [new Application/FTP]
$ftp1 attach-agent $tcp1
set ftp2 [new Application/FTP]
$ftp2 attach-agent $tcp2
set ftp3 [new Application/FTP]
$ftp3 attach-agent $tcp3

#Define a 'finish' procedure
proc finish {} {
global ns
$ns flush-trace
exit 0
}
$ns at 0.1 "$ftp1 start"
$ns at 0.1 "$ftp2 start"
$ns at 0.1 "$ftp3 start"
$ns at 5.0 "$ftp1 stop"
$ns at 5.0 "$ftp2 stop"
$ns at 5.0 "$ftp3 stop"
proc finish {} {
global ns nf nt
$ns flush-trace
close $nf
#close $nt
```

```
    puts "running nam…"
    exec nam test2.nam &
    exit 0
}

$ns at 5.25 "finish"
$ns run
```