

### Code:

```
set ns [new Simulator]
```

```
$ns color 2 Green
```

```
set nf [open prac1.nam w]
```

```
$ns namtrace-all $nf
```

```
set np [open prac1.tr w]
```

```
$ns trace-all $np
```

```
proc finish {} {
```

```
global ns nf np
$ns flush-trace
#Close the NAM trace file
close $nf
#Execute NAM on the trace file
exec nam prac1.nam &
    exit 0
}

set n0 [$ns node]
set n1 [$ns node]
set n2 [$ns node]
set n3 [$ns node]

#Create links between the nodes
$ns duplex-link $n0 $n2 2Mb 10ms RED
$ns duplex-link $n1 $n2 2Mb 10ms RED
$ns duplex-link $n2 $n3 1.7Mb 20ms RED

$ns queue-limit $n2 $n3 8

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

$ns duplex-link-op $n2 $n3 queuePos 1.5
```

```
set udp [new Agent/UDP]
$ns attach-agent $n1 $udp
set null [new Agent/Null]
$ns attach-agent $n3 $null
$ns connect $udp $null
$udp set fid_ 2
```

```
set cbr [new Application/Traffic/CBR]
$cbr attach-agent $udp
```

```
$cbr set packet_size_ 1000
```

```
$cbr set rate_ 1mb
```

```
$cbr set random_ false
```

```
$ns at 0.1 "$cbr start"
#$ns at 1.0 "$ftp start"
#$ns at 4.0 "$ftp stop"
$ns at 4.5 "$cbr stop"
```

```
$ns at 5.0 "finish"
```

puts "CBR packet size = [\$cbr set packet\_size\_]"

puts "CBR interval = [\$cbr set interval\_]"

\$ns run

