Date : 10-11-22
Experiment No. 4

4 Implement three nodes point to point network with duplex links between them set queue size vary the bandwidth and find the number of packets dropped.

```
set ns [new Simulator]
set na [open progs.nam w]
$ns namtrace -all $na
set nt [open progs.tr w]
$ns trace -all $nt
set n0 [$ns node]
set n1 [$ns node]
set n2 [$ns node]
$ns duplex-link $n0 $n1 100Mb 100ms DropTail
$ns queue-limit $n0 $n1 10
$ns duplex-link $n1 $n2 100Mb 100ms DropTail
$ns queue-limit $n1 $n2 10
set TCP [new Agent/TCP]
$ns attach-agent $n0 $TCP
set CBR [new Application/Traffic/CBR]
$CBR attach-agent $TCP
set SINK [new Agent/TCPSink]
$ns attach-agent $n2 $SINK
$ns connect $TCP $SINK
proc End {} {
global ns na nt
$ns flush-trace
close $na
close $nt
exec nam progs.nam &
exit 0
}
```

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```
$ns at 0.0 "$cbr start"
$ns at 50.0 "End"
$ns run
```

prog.awk

```
BEGIN {count=0;}
{
  if ($1='d')
    count++;
}
END{
  printf("Number of packets dropped is: %d\n",
          count);
}
```