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#assign 2 q1 single flow traffic
#Create a simulator object
set ns [new Simulator]

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

#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]

#Create links between the nodes
$ns duplex-link $n0 $n1 1.5Mb 10ms DropTail

#Set Queue Size of link (n2-n3) to 10
$ns queue-limit $n0 $n1 10

$ns duplex-link-op $n0 $n1 orient right

#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 $n1 $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

$ns at 0.0 "$ftp start"
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$ns at 4.0 "$ftp stop"
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#Detach tcp and sink agents (not really necessary)
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$ns at 4.5 "$ns detach-agent $n0 $tcp ; $ns detach-agent $n1 $sink"
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#Call the finish procedure after 5 seconds of simulation time
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$ns at 5.0 "finish"
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#Run the simulation
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$ns run
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