```tcl
#file name tcpsetup.tcl

# Simulator Instance Creation
set ns [new Simulator]

#Fixing the co-ordinate of simulation area
set val(x) 500
set val(y) 500


# Define options
set val(chan)           Channel/WirelessChannel    ;# channel type
set val(prop)           Propagation/TwoRayGround    ;# radio-propagation model
set val(netif)          Phy/WirelessPhy             ;# network interface type
set val(mac)            Mac/802_11                  ;# MAC type
set val(ifq)            Queue/DropTail/PriQueue     ;# interface queue type
set val(ll)             LL                          ;# link layer type
set val(ant)            Antenna/OmniAntenna         ;# antenna model
set val(ifqlen)         50                          ;# max packet in ifq
set val(nn)              3                     ;# number of mobilenodes
set val(rp)             AODV                        ;# routing protocol
set val(x)              500                         ;# X dimension of topography
set val(y)              500                         ;# Y dimension of topography
set val(stop)           10.0                        ;# time of simulation end

# set up topography object
set topo        [new Topography]
$topo load_flatgrid $val(x) $val(y)

#Nam File Creation  nam - network animator
set namfile [open tcpsetup.nam w]

#Tracing all the events and cofiguration
$ns namtrace-all-wireless $namfile $val(x) $val(y)

#Trace File creation
set tracefile [open tcpsetup.tr w]

#Tracing all the events and cofiguration
$ns trace-all $tracefile

# general operational descriptor- storing the hop details in the network
create-god $val(nn)

# configure the nodes
        $ns node-config -adhocRouting $val(rp) \
                        -llType $val(ll) \
                        -macType $val(mac) \
                        -ifqType $val(ifq) \
                        -ifqLen $val(ifqlen) \
                        -antType $val(ant) \
                        -propType $val(prop) \
                        -phyType $val(netif) \
                        -channelType $val(chan) \
                        -topoInstance $topo \
                        -agentTrace ON \
                        -routerTrace ON \
                        -macTrace OFF \
                        -movementTrace ON


# Node Creation

for {set i 0} {$i < 5} {incr i} {

        set node_($i) [$ns node]
```

```tcl
        $node_($i) color black

}


#Location fixing for a first and second node and randomly alloting other three nodes

        $node_(0) set X_ 50
        $node_(0) set Y_ 50
        $node_(0) set Z_ 0


        for {set i 1} {$i < 4} {incr i} {
        $node_($i) set X_ [expr  ($i)*100]
        $node_($i) set Y_ [expr ($i)*100]
        $node_($i) set Z_ 0
}

        $node_(4) set X_ 400
        $node_(4) set Y_ 400
        $node_(4) set Z_ 0



# Label and coloring

for {set i 0} {$i < 5} {incr i} {

        $ns at 0.1 "$node_($i) color blue"
        $ns at 0.1 "$node_($i) label Node$i"

}


#Size of the node

for {set i 0} {$i < 5} {incr i} {

        $ns initial_node_pos $node_($i) 30

}


#*******************************Defining Communication Between node0 and all nodes
****************************8


for {set i 1} {$i < 5} {incr i} {
# Defining a transport agent for sending
set tcp [new Agent/TCP]

# Attaching transport agent to sender node
$ns attach-agent $node_(0) $tcp

# Defining a transport agent for receiving
set sink [new Agent/TCPSink]

# Attaching transport agent to receiver node
$ns attach-agent $node_(4) $sink

#Connecting sending and receiving transport agents
$ns connect $tcp $sink

#Defining Application instance
```

```tcl
set cbr1 [new Application/FTP]

# Attaching transport agent to application agent
$cbr1 attach-agent $tcp

#Packet size in bytes and interval in seconds definition
$cbr1 set packetSize_ 512
$cbr1 set interval_ 0.001


# data packet generation starting time
$ns at 1.0 "$cbr1 start"


# data packet generation ending time
$ns at 6.0 "$cbr1 stop"

}


# ending nam and the simulation
$ns at $val(stop) "$ns nam-end-wireless $val(stop)"
$ns at $val(stop) "stop"

#Stopping the scheduler
$ns at 10.01 "puts \"end simulation\" ; $ns halt"


#$ns at 10.01 "$ns halt"

proc stop {} {
        global namfile tracefile ns
        $ns flush-trace
        close $namfile
        close $tracefile
        #executing nam file
        exec nam tcpsetup.nam &
}



#Starting scheduler
$ns run
```