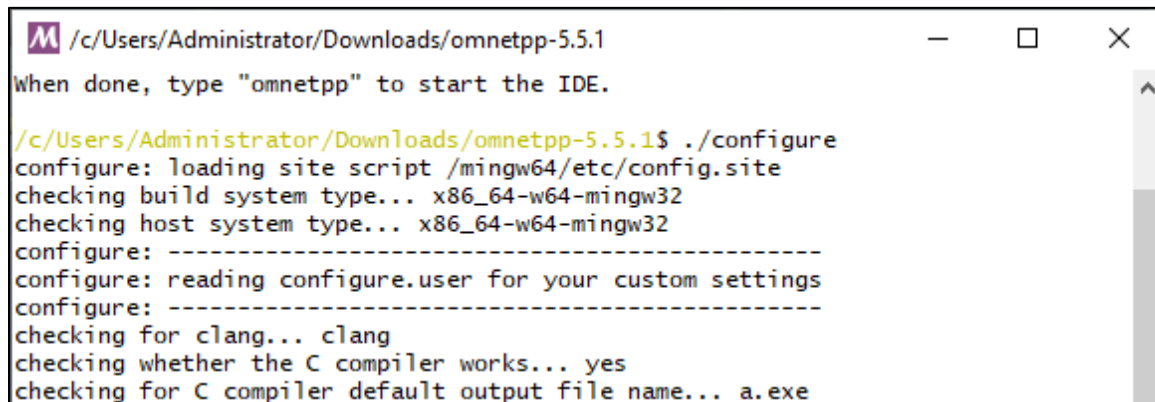


PRACTICAL NO: 5

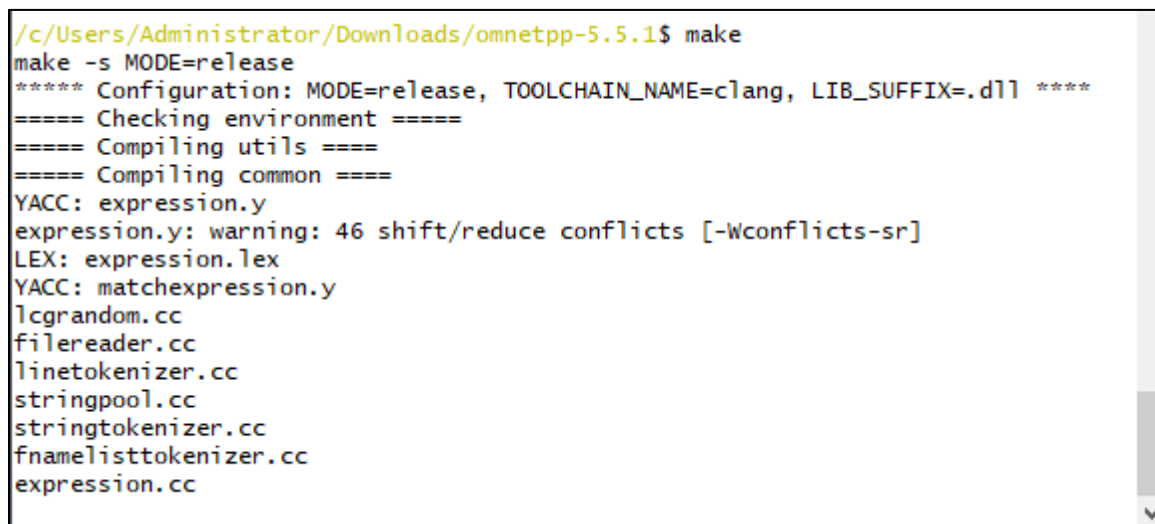
AIM: Create simple Adhoc network.

Step 1: Go to omnetpp-5.5.1 folder in which open “mingwenv.cmd” file, we get following window. Type “./configure” and “make” command for further installation.



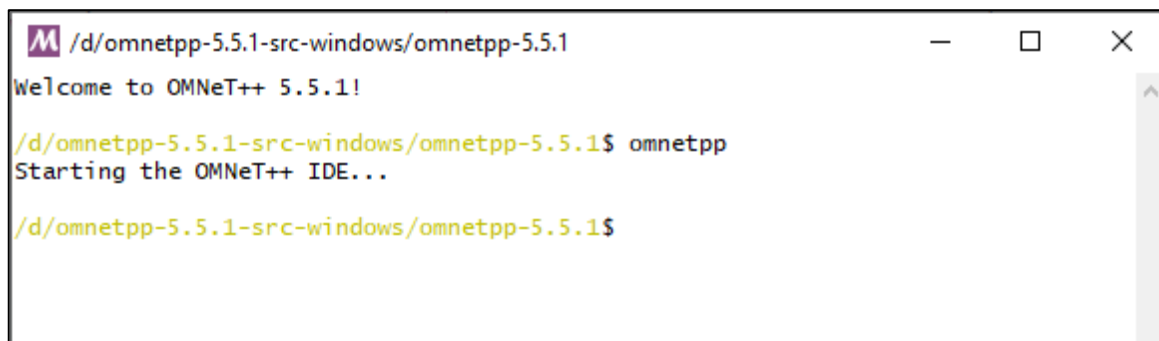
```
M /c/Users/Administrator/Downloads/omnetpp-5.5.1
When done, type "omnetpp" to start the IDE.

/c/Users/Administrator/Downloads/omnetpp-5.5.1$ ./configure
configure: loading site script /mingw64/etc/config.site
checking build system type... x86_64-w64-mingw32
checking host system type... x86_64-w64-mingw32
configure: -----
configure: reading configure.user for your custom settings
configure: -----
checking for clang... clang
checking whether the C compiler works... yes
checking for C compiler default output file name... a.exe
```



```
/c/Users/Administrator/Downloads/omnetpp-5.5.1$ make
make -s MODE=release
***** Configuration: MODE=release, TOOLCHAIN_NAME=clang, LIB_SUFFIX=.dll *****
===== Checking environment =====
===== Compiling utils =====
===== Compiling common =====
YACC: expression.y
expression.y: warning: 46 shift/reduce conflicts [-Wconflicts-sr]
LEX: expression.lex
YACC: matchexpression.y
lcg_random.cc
filereader.cc
linetokenizer.cc
stringpool.cc
stringtokenizer.cc
fnamelisttokenizer.cc
expression.cc
```

Step 2: Go to omnetpp-5.5.1 folder in which open “mingwenv.cmd” file, we get following window. Type “omnetpp” command to open omnet++ IDE.

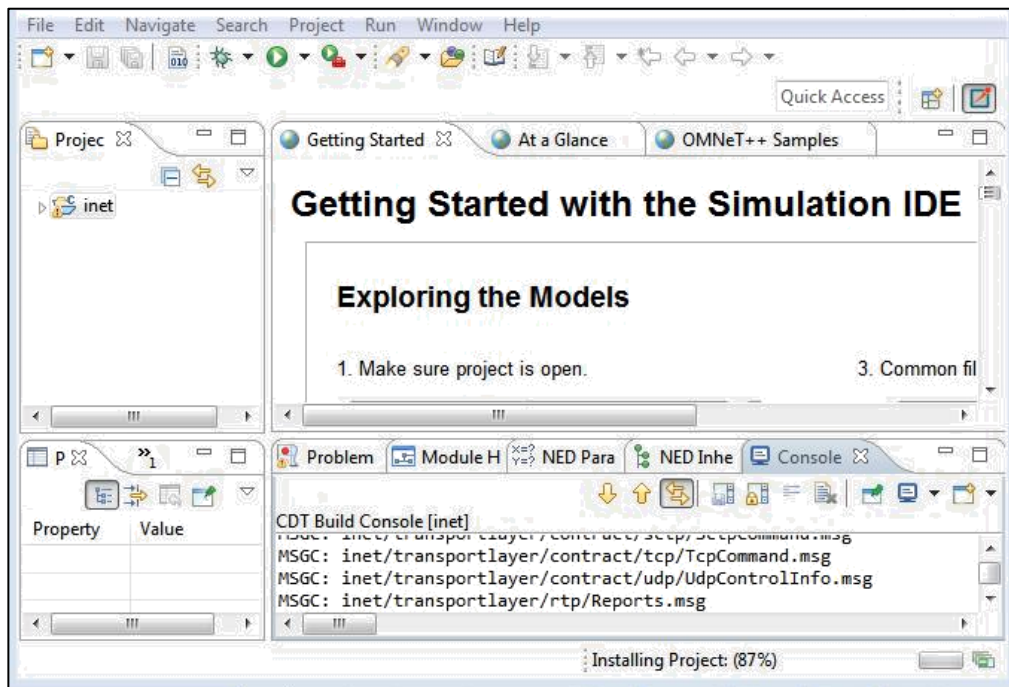


```
M /d/omnetpp-5.5.1-src-windows/omnetpp-5.5.1
Welcome to OMNeT++ 5.5.1!

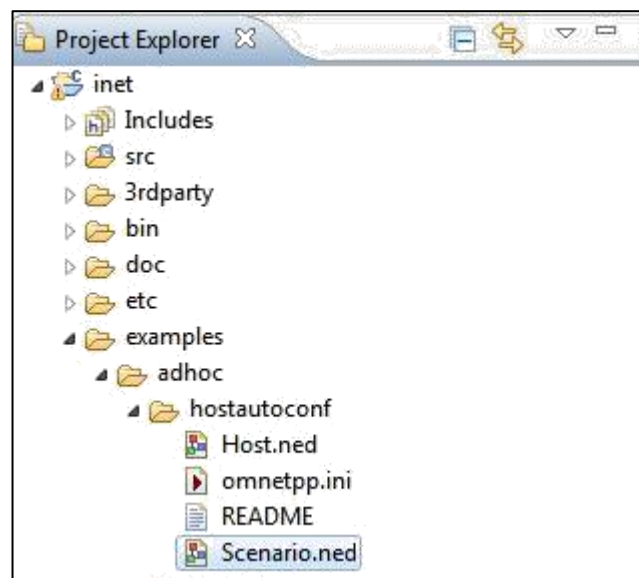
/d/omnetpp-5.5.1-src-windows/omnetpp-5.5.1$ omnetpp
Starting the OMNeT++ IDE...

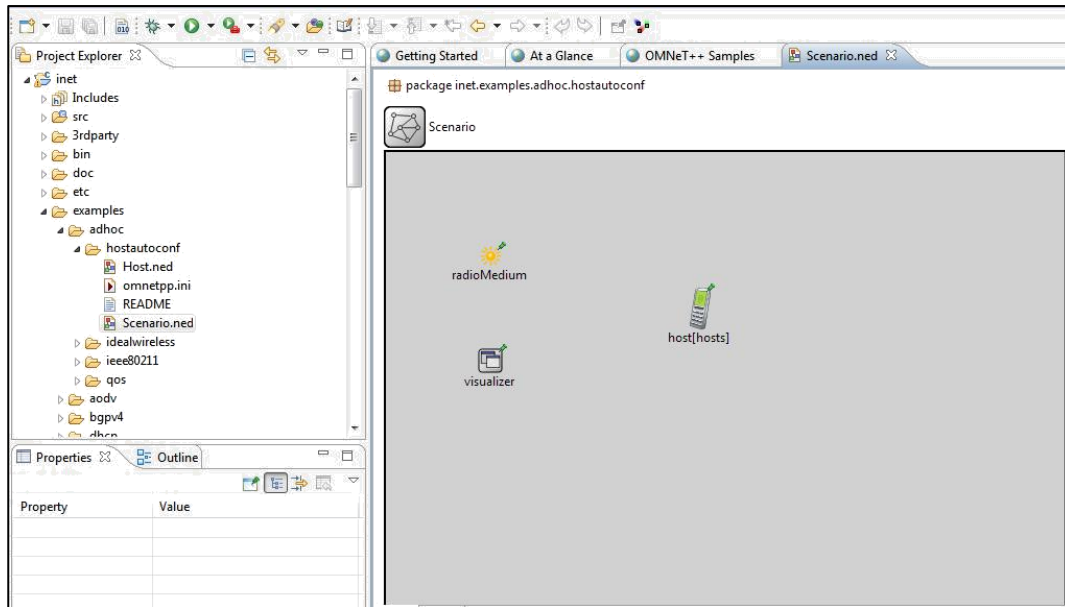
/d/omnetpp-5.5.1-src-windows/omnetpp-5.5.1$
```

Step 3: after that command, following window will open.



Step 4: Go to project Explorer > inet > examples > Adhoc > Hostautoconf and open Scenario.ned file.



Scenario.ned:**Coding:****Scenario.ned:**

```

package inet.examples.adhoc.hostautoconf;
import inet.physicallayer.ieee80211.packetlevel.Ieee80211ScalarRadioMedium;
import inet.visualizer.contract.IIntegratedVisualizer; network Scenario
{
    parameters:
    int hosts;
    @display("bgb=650,450");
    submodules:
    visualizer: <default("IntegratedCanvasVisualizer")> like IIntegratedVisualizer if
    hasVisualizer() {
        parameters:
        @display("p=100,200;is=s");
    }
    radioMedium: Ieee80211ScalarRadioMedium
    {
        parameters:
        @display("p=100,100;is=s");
    }
    host[hosts]: Host
    {
        @display("p=300,150");
    }
}

```

Omnetpp.ini:

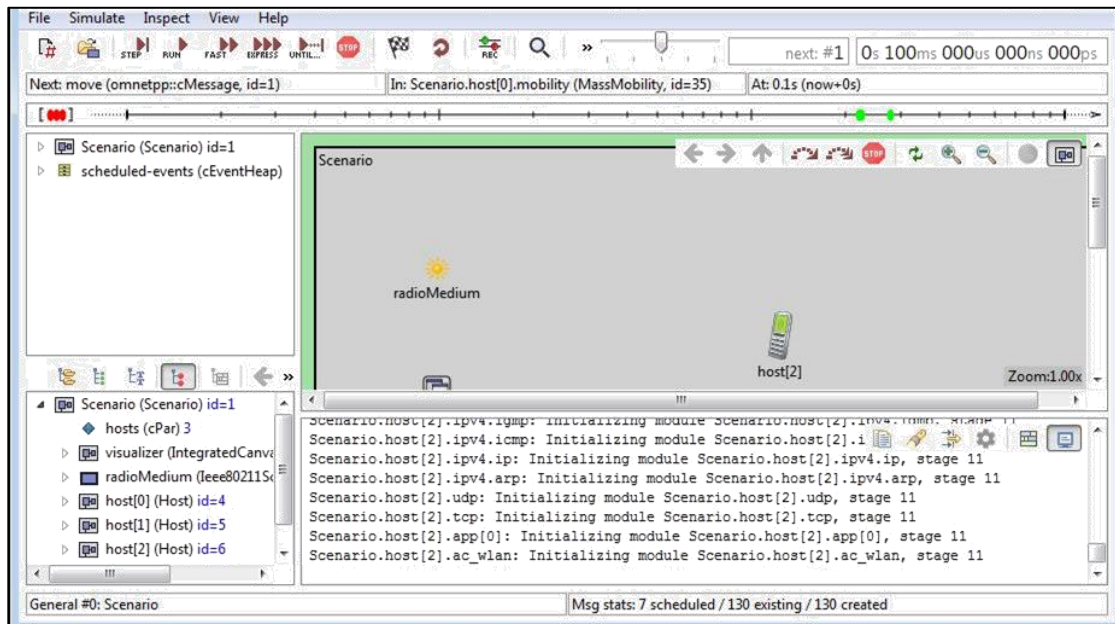
```
[General]
#debug-on-errors = true
#record-eventlog = true
network = Scenario
sim-time-limit = 60min
cmdenv-express-mode = true
*.hosts = 3
**.constraintAreaMinX = 0m
**.constraintAreaMinY = 0m
**.constraintAreaMinZ = 0m
**.constraintAreaMaxX = 600m
**.constraintAreaMaxY = 400m
**.constraintAreaMaxZ = 0m
# mobility
**.host*.mobility.typename = "MassMobility"
**.host*.mobility.initFromDisplayString = false
**.host*.mobility.changeInterval = truncnormal(2s, 0.5s)
**.host*.mobility.angleDelta = normal(0deg, 30deg)
**.host*.mobility.speed = truncnormal(20mps, 8mps)
**.host*.mobility.updateInterval = 100ms
**.host*.ac_wlan.interfaces = "wlan0"

UdpBasicApp / UdpSink *.host*.numApps = 1 *.app[0].typename = "UdpBasicApp"
**.app[0].destAddresses = "host[0]" *.app[0].localPort = 9001 *.app[0].destPort = 9001
**.app[0].messageLength = 100B *.app[0].startTime = uniform(10s, 30s)
**.app[0].sendInterval = uniform(10s, 30s)

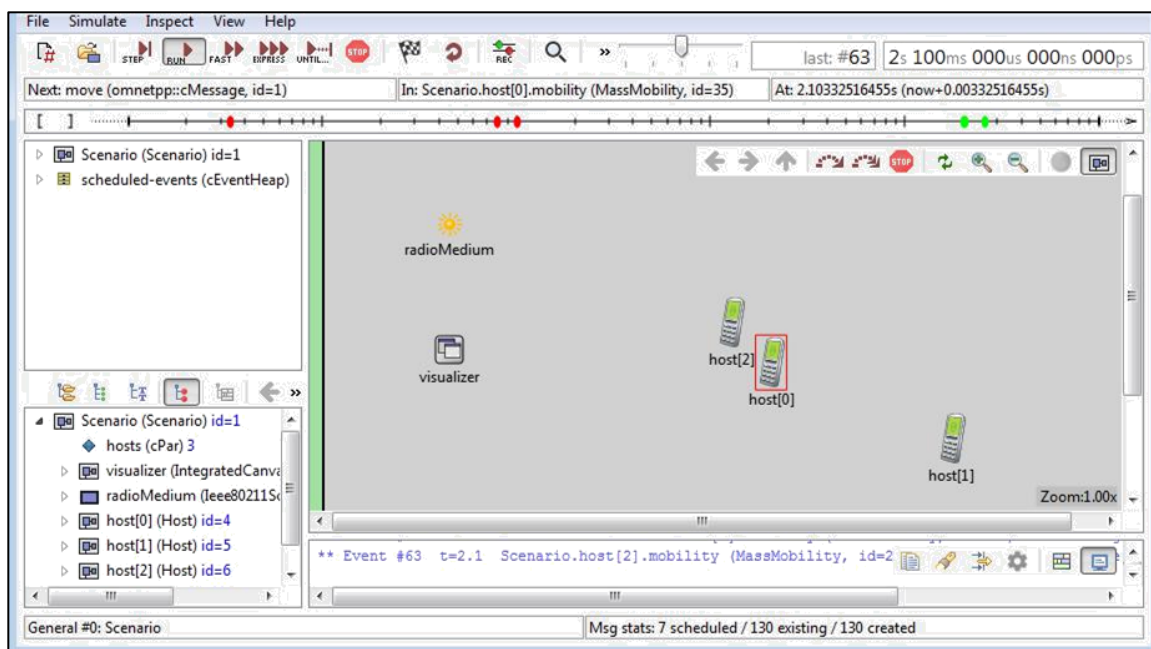
nic settings
**.wlan[*].bitrate = 2Mbps
**.wlan[*].mgmt.frameCapacity = 10
**.wlan[*].mac.retryLimit = 7
**.wlan[*].mac.dcf.channelAccess.cwMin = 7
**.wlan[*].mac.cwMinBroadcast = 31
**.wlan[*].radio.transmitter.power = 2mW
**.wlan[*].radio.receiver.sensitivity = -85dBm
**.wlan[*].radio.receiver.snirThreshold = 4dB
**.udpapp*.vector-recording = true
**.vector-recording = true
```

Step 5: Click on Run button.

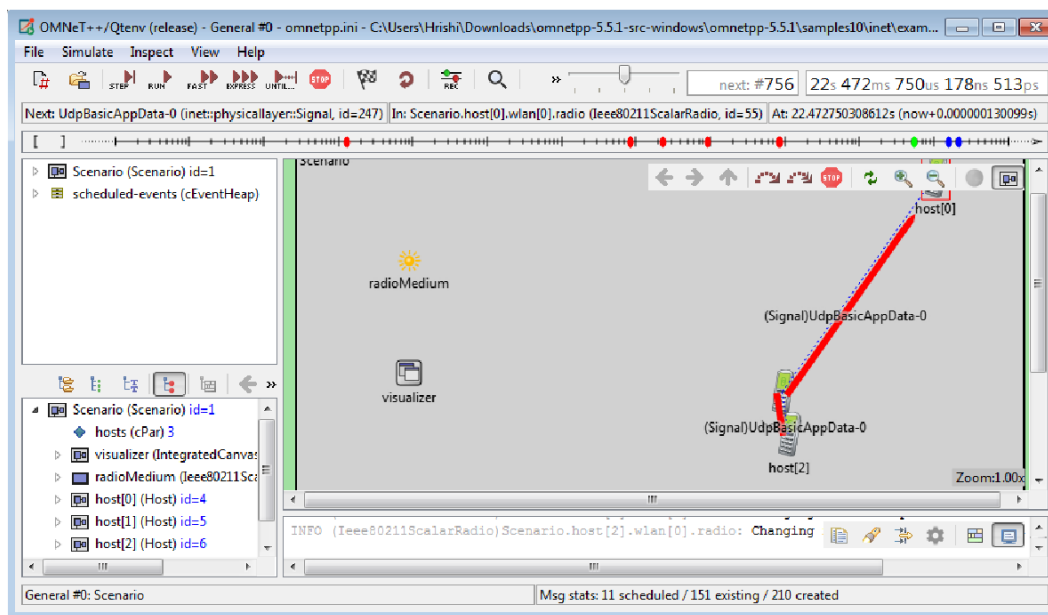
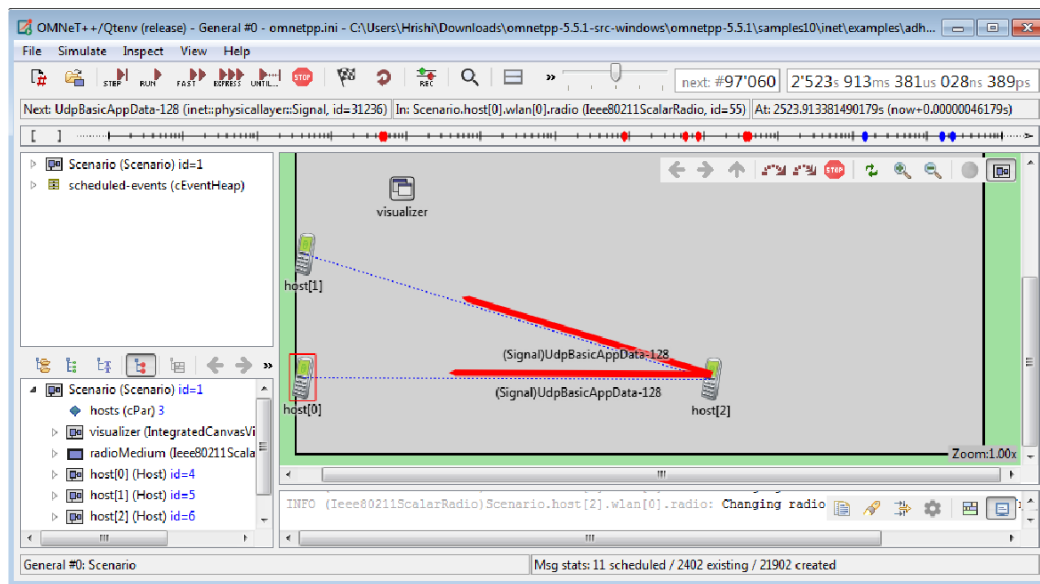
Step 6: After that following window will open.



Step 7: Click on RUN.



OUTPUT:



Conclusion: We have learnt to create a simple ADHOC network.