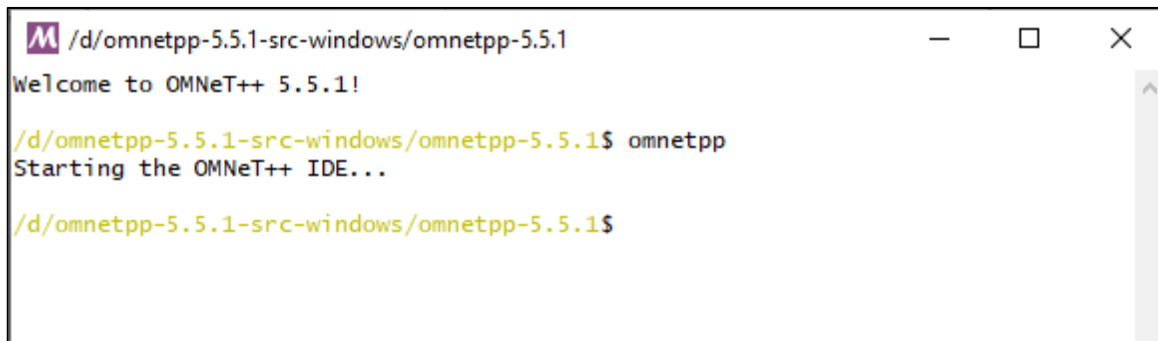


**PRACTICAL NO: 8**

**AIM:** Create wireless network in OMNET++.

**Step 1:** Go to omnetpp-5.5.1 folder in which open “mingwenv.cmd” file, we get following window. Type “omnetpp” command to open omnet++ IDE.

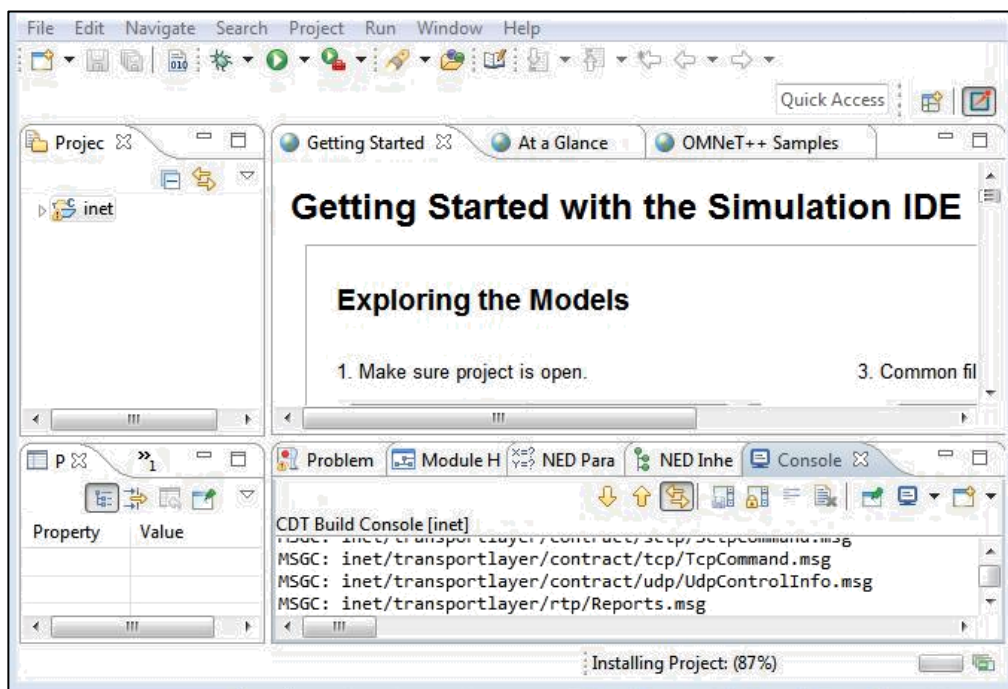


```
M /d/omnetpp-5.5.1-src-windows/omnetpp-5.5.1
Welcome to OMNeT++ 5.5.1!

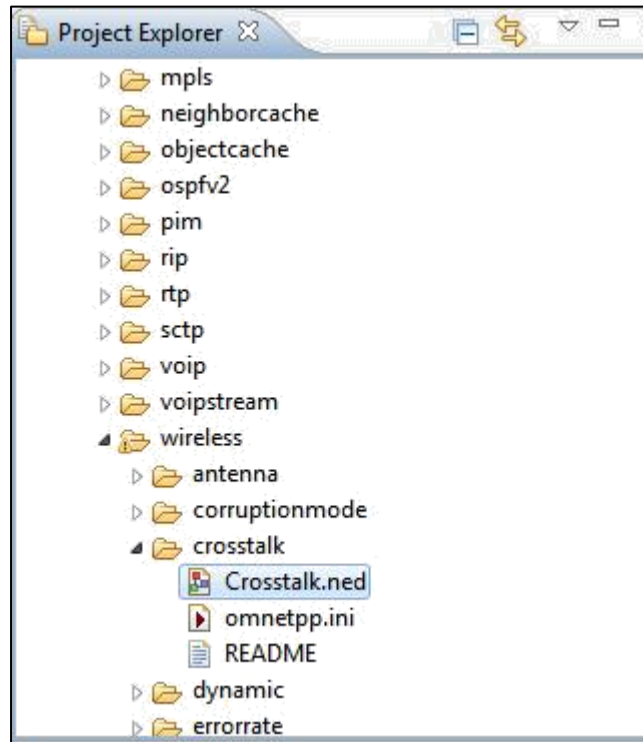
/d/omnetpp-5.5.1-src-windows/omnetpp-5.5.1$ omnetpp
Starting the OMNeT++ IDE...

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

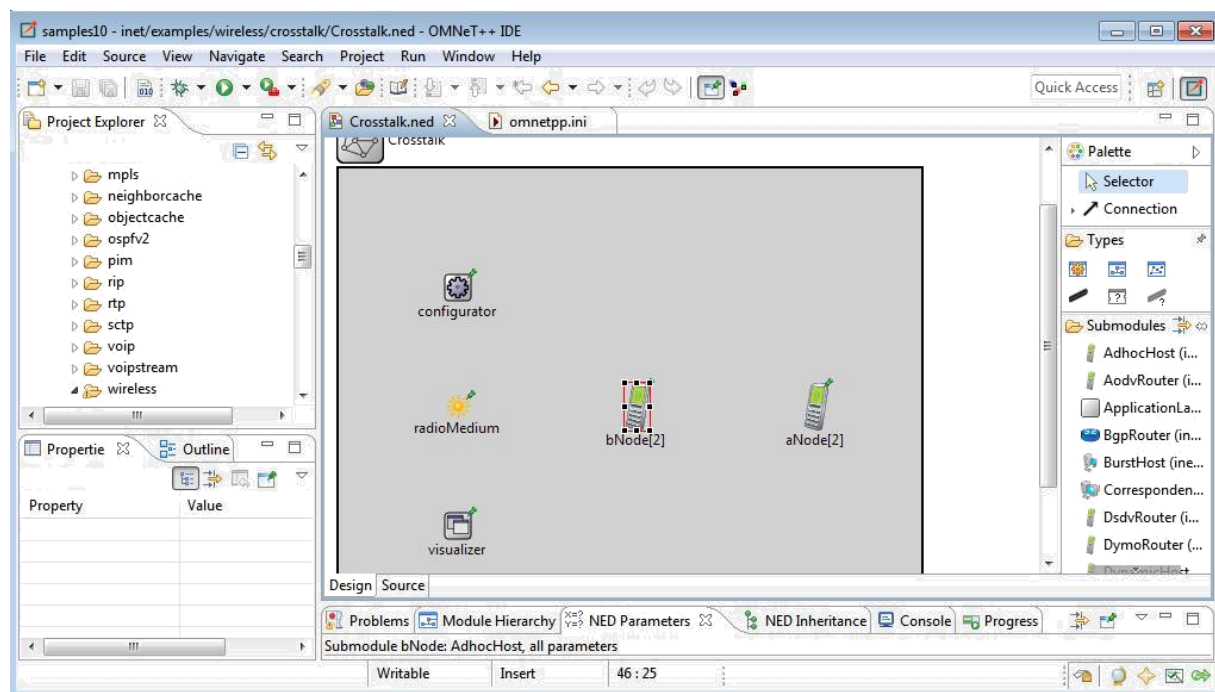
**Step 2:** after that command, following window will open.



**Step 3:** Go to project Explorer > inet > examples > wireless > crosswalk and open Crosstalk.ned file.



**Crosstalk.ned:**



**Coding:****Crosstalk.ned:**

```

package inet.examples.wireless.crosstalk;
import inet.networklayer.configurator.ipv4.Ipv4NetworkConfigurator;
import inet.node.inet.AdhocHost;
import inet.physicallayer.ieee80211.packetlevel.Ieee80211DimensionalRadioMedium;
import inet.visualizer.contract.IIntegratedVisualizer; network Crosstalk
{
parameters:
submodules:
visualizer: <default("IntegratedCanvasVisualizer")> like IIntegratedVisualizer if hasVisualizer()
{
parameters:
@display("p=100,300;is=s");
}
configurator: Ipv4NetworkConfigurator {
parameters:
@display("p=100,100;is=s");
}
radioMedium: Ieee80211DimensionalRadioMedium { parameters:
@display("p=100,200;is=s");
}
aNode[2]: AdhocHost {
parameters:
@display("r=.,#707070;p=400,200");
}
bNode[2]: AdhocHost {
parameters:
@display("r=.,#707070;p=250,200");
}
}

```

**Omnetpp.ini:**

```

[General]
network = Crosstalk
#record-eventlog = true
sim-time-limit = 0.1s
seed-set = 1
**.constraintAreaMinX = 0m
**.constraintAreaMinY = 0m
**.constraintAreaMinZ = 0m
**.constraintAreaMaxX = 100m
**.constraintAreaMaxY = 100m
**.constraintAreaMaxZ = 0m

```

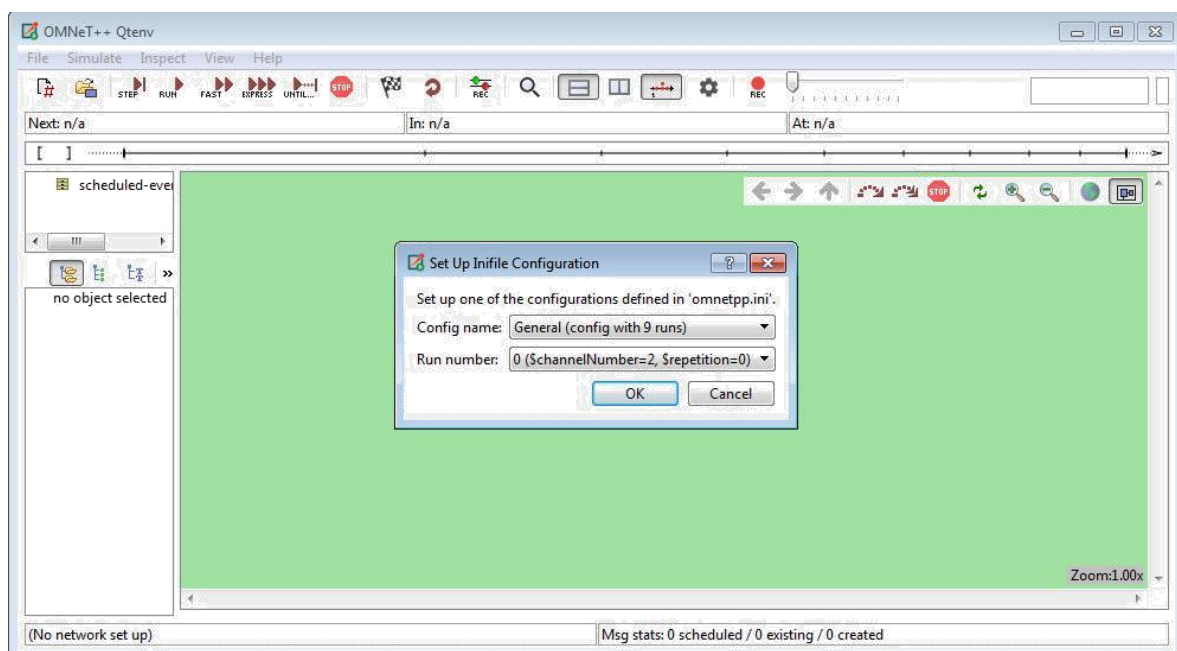
```

# mobility
*. *Node[*].mobility.typename = "StationaryMobility"
*. *Node[*].mobility.initFromDisplayString = false
# udp App
*. *Node[*].numApps = 1
*. *Node[0].app[0].typename = "UdpSink"
*. *Node[*].app[0].typename = "UdpBasicApp"
*. *Node[*].app[0].localPort = 100
*. *Node[*].app[0].destPort = 100
*. *Node[*].app[0].messageLength = 1250B
*. *Node[*].app[0].startTime = exponential(100us)
*. *Node[*].app[0].sendInterval = exponential(100us)
*. aNode[*].app[0].destAddresses = "aNode[0]"
*. bNode[*].app[0].destAddresses = "bNode[0]"
# nic
*. *Node[*].wlan[*].radio.typename = "Ieee80211DimensionalRadio"
# medium
*. radioMedium.backgroundNoise.dimensions = "time frequency"
# radio
*. *Node[*].wlan[*].radio.transmitter.bandwidth = 20 MHz
*. *Node[*].wlan[*].radio.receiver.bandwidth = 20 MHz
*. *Node[*].wlan[*].radio.transmitter.dimensions = "time frequency"
*. aNode[*].wlan[*].radio.channelNumber = 1
*. bNode[*].wlan[*].radio.channelNumber = ${channelNumber=2..10}

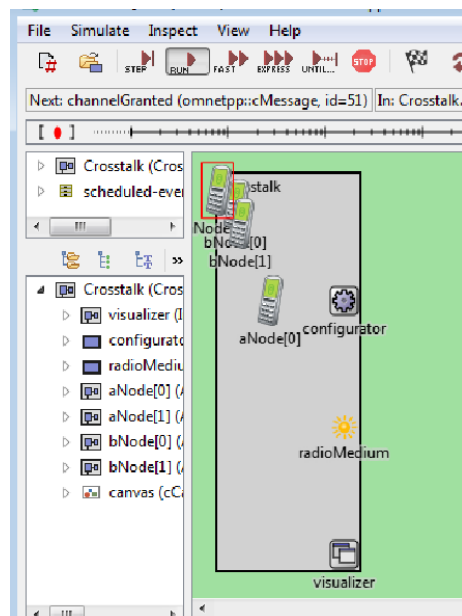
```

**Step 4:** Click on Run button.

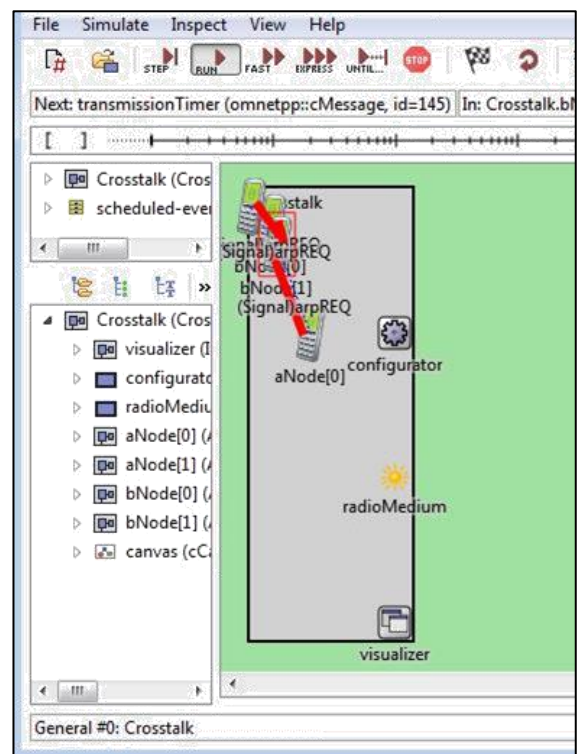
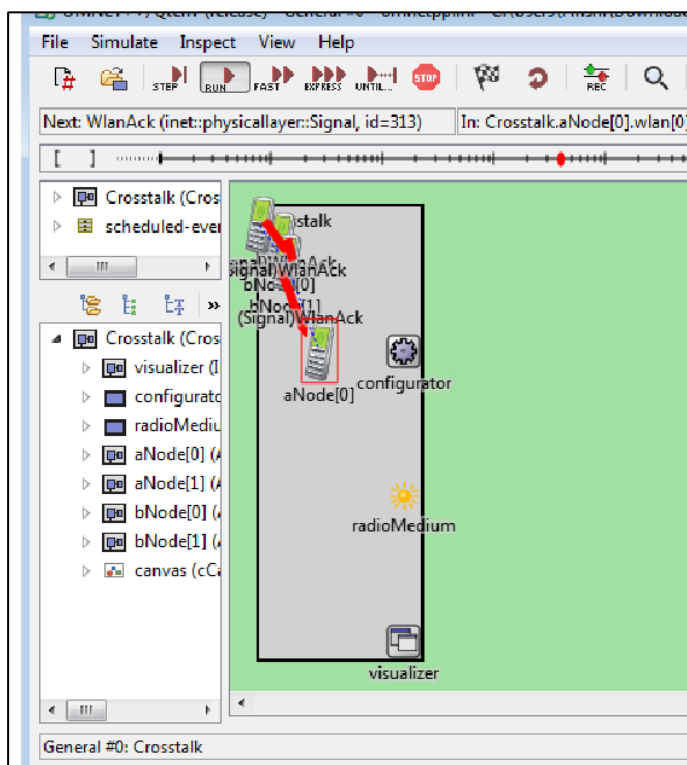
**Step 5:** After that following window will open.



**Step 6:** Click OK and then Click on RUN.



**OUTPUT:**



**Conclusion:** We have learnt to wireless network in OMNET++.