

EX NO: 1	<b>DESIGN AND IMPLEMENT THE NETWORK TOPOLOGIES</b>
DATE:	

**AIM:**

To design and implement the network topologies using NETSIM.

**SOFTWARE REQUIRED:**

NETSIM – Simulation Platform for Network

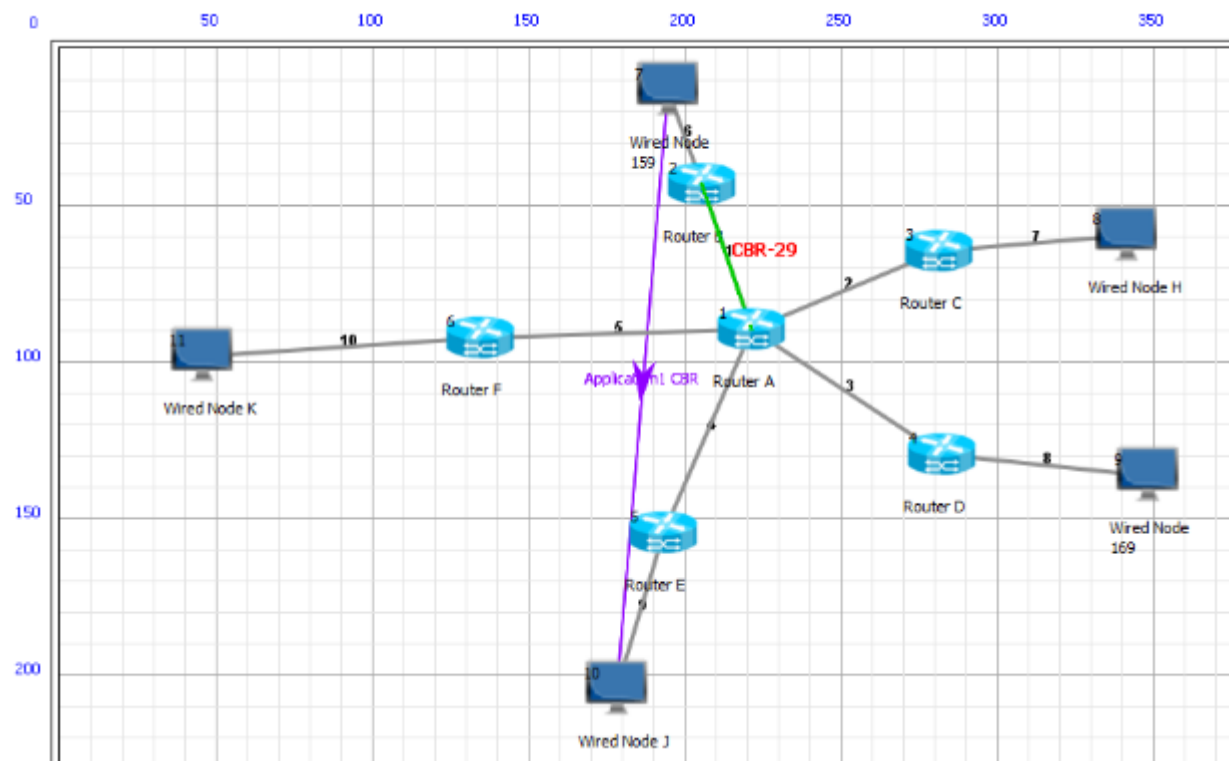
**PROCEDURE:**

- Open the NETSIM software.
- Select the simulation → Networks → Internetworks
- Connect the nodes in a typical fashion for analysis
- Run the simulation
- Analyze and interpret the obtained network metrics

**RESULT:**

Thus the design and implementation of network topologies was done successfully.


<b>Roll Number</b>	21ECR169	<b>Course Code</b>	20ECL62
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<b>Experiment No.</b>	1	<b>Experiment Name</b>	DESIGN AND IMPLEMENT NETWORK TOPOLOGIES; STAR, MESH, BUS, RING
<b>Image caption</b>	STAR TOPOLOGY		




NetSim - Simulation - Internetworks

Simulation Programming Basics Utilities Help

←





Performance Metrics

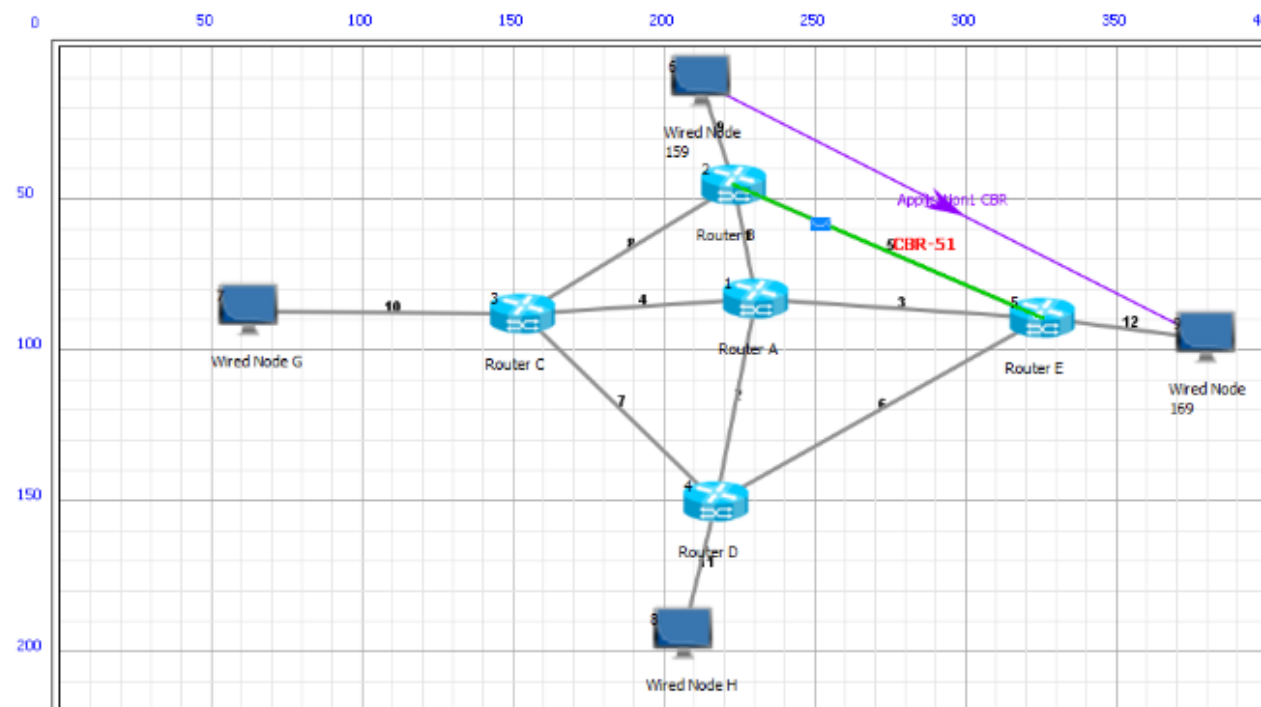
- Network Metrics
- Link Metrics
- Queue Metrics
- TCP Metrics
- IP Metrics
- IP Forwarding Table
- OSPF Metrics
- ARP Metrics
- ARP TABLE
- Application Metrics

Performance Metrics

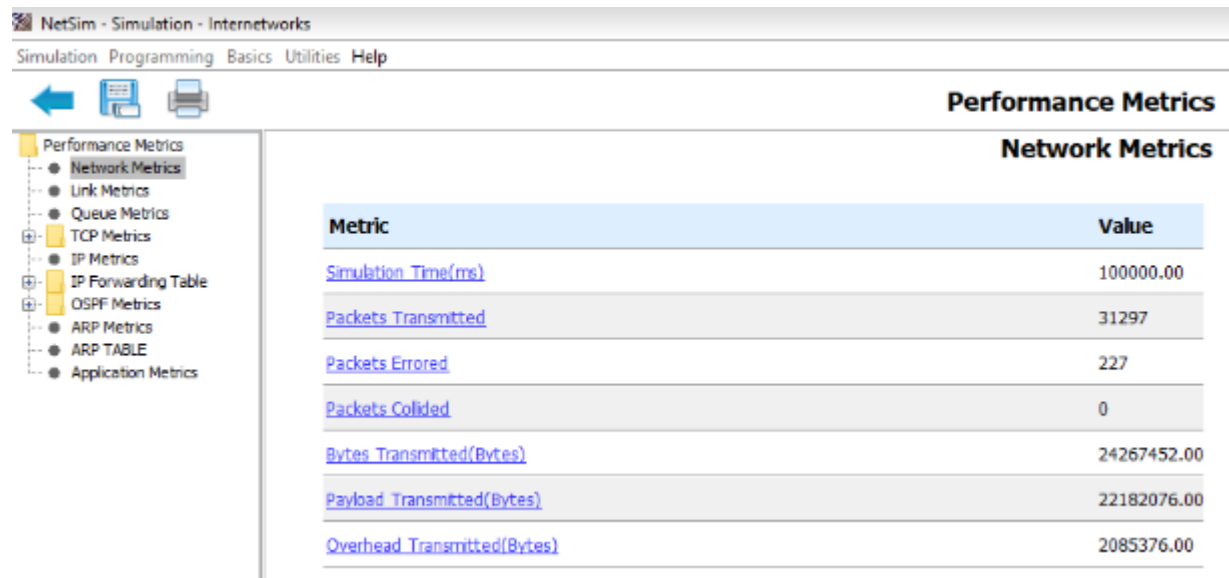
Network Metrics

Metric	Value
<a href="#">Simulation Time(ms)</a>	10000.00
<a href="#">Packets Transmitted</a>	3481
<a href="#">Packets Errored</a>	24
<a href="#">Packets Colided</a>	0
<a href="#">Bytes Transmitted(Bytes)</a>	2458670.00
<a href="#">Payload Transmitted(Bytes)</a>	2242212.00
<a href="#">Overhead Transmitted(Bytes)</a>	216458.00

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<b>Image caption</b>	MESH TOPOLOGY		



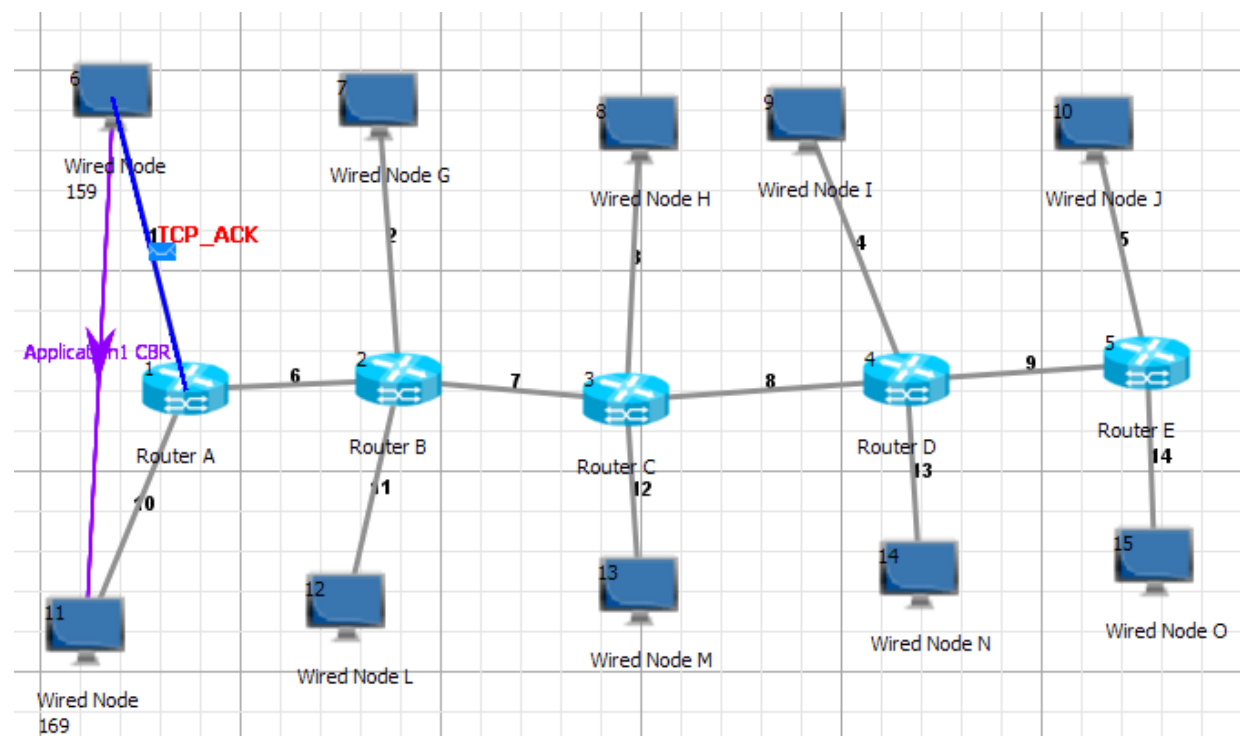
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<b>Image caption</b>	MESH TOPOLOGY		



The screenshot shows the 'Performance Metrics' window in NetSim. The left sidebar lists various metrics categories, with 'Network Metrics' selected. The main area displays a table of network metrics and their values.

Performance Metrics	
Network Metrics	
Metric	Value
<a href="#">Simulation Time(ms)</a>	100000.00
<a href="#">Packets Transmitted</a>	31297
<a href="#">Packets Errored</a>	227
<a href="#">Packets Collided</a>	0
<a href="#">Bytes Transmitted(Bytes)</a>	24267452.00
<a href="#">Payload Transmitted(Bytes)</a>	22182076.00
<a href="#">Overhead Transmitted(Bytes)</a>	2085376.00

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<b>Image caption</b>	BUS TOPOLOGY		



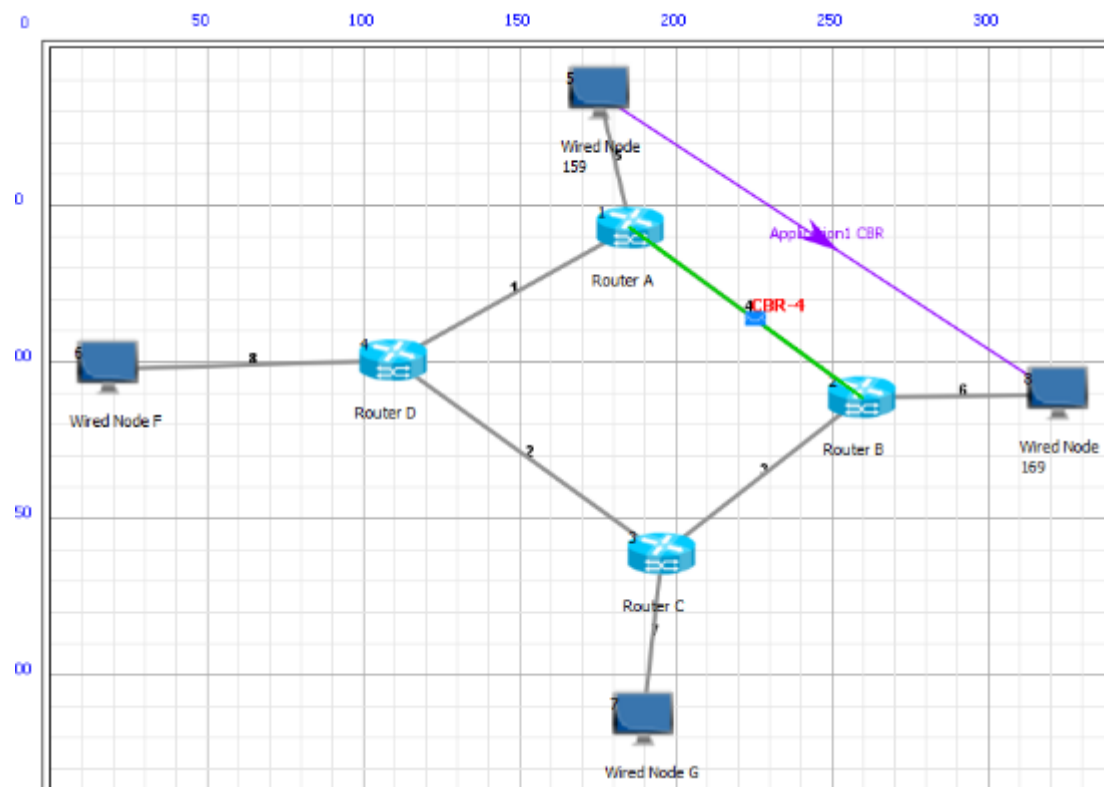
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Image caption	BUS TOPOLOGY		

Performance Metrics

Network Metrics

Metric	Value
<a href="#">Simulation Time(ms)</a>	100000.00
<a href="#">Packets Transmitted</a>	21529
<a href="#">Packets Errored</a>	123
<a href="#">Packets Collided</a>	0
<a href="#">Bytes Transmitted(Bytes)</a>	16280646.00
<a href="#">Payload Transmitted(Bytes)</a>	14728232.00
<a href="#">Overhead Transmitted(Bytes)</a>	1552414.00

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<b>Image caption</b>	RING TOPOLOGY		





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<b>Image caption</b>	RING TOPOLOGY		

Performance Metrics	
Network Metrics	
Metric	Value
<a href="#">Simulation Time(ms)</a>	100000.00
<a href="#">Packets Transmitted</a>	31580
<a href="#">Packets Errored</a>	231
<a href="#">Packets Colided</a>	0
<a href="#">Bytes Transmitted(Bytes)</a>	24311082.00
<a href="#">Payload Transmitted(Bytes)</a>	22211336.00
<a href="#">Overhead Transmitted(Bytes)</a>	2099746.00