Batch: A2

Roll Number: 16010421063 **Experiment Number: 7**

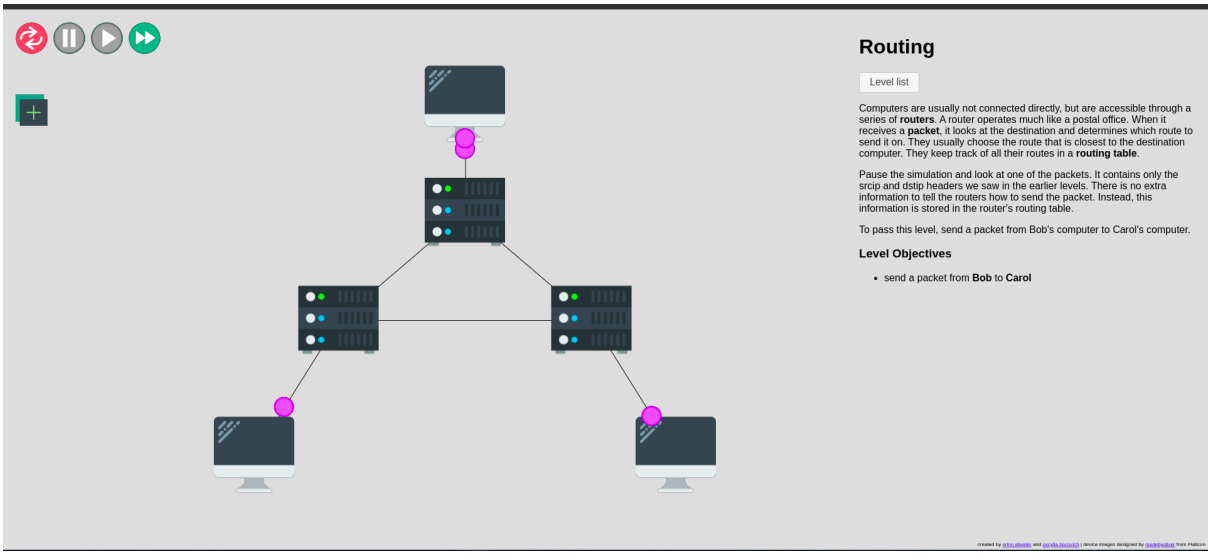
Name:Arya Nair

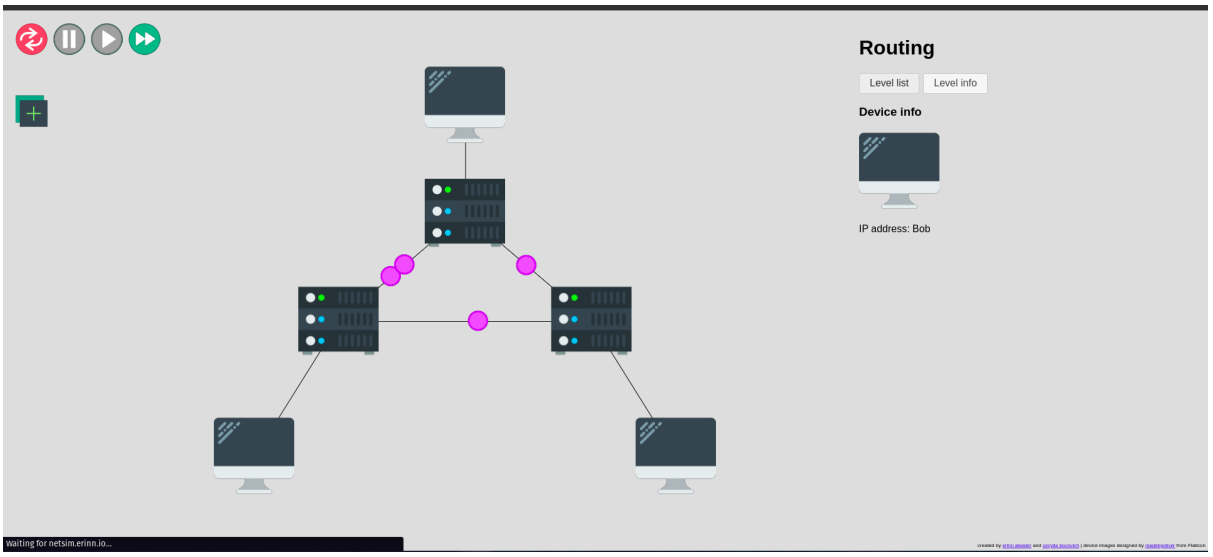
Title of the Experiment: Demonstration using Simulation software

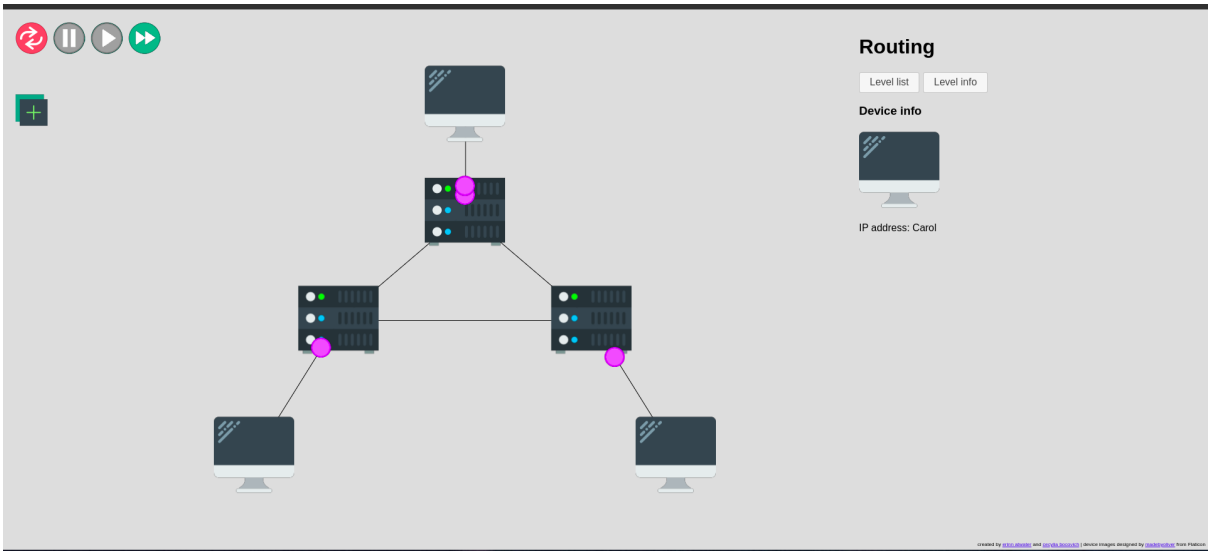
Theory

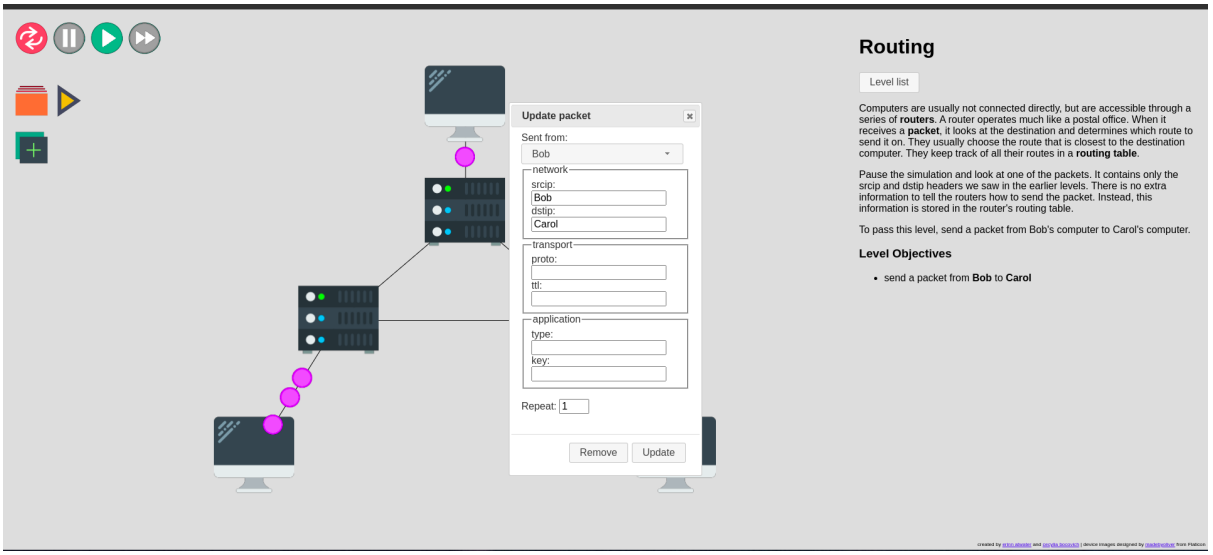
Computers are usually not connected directly, but are accessible through a series of routers. A router operates much like a postal office. When it receives a packet, it looks at the destination and determines which route to send it on. They usually choose the route that is closest to the destination computer. They keep track of all their routes in a routing table.

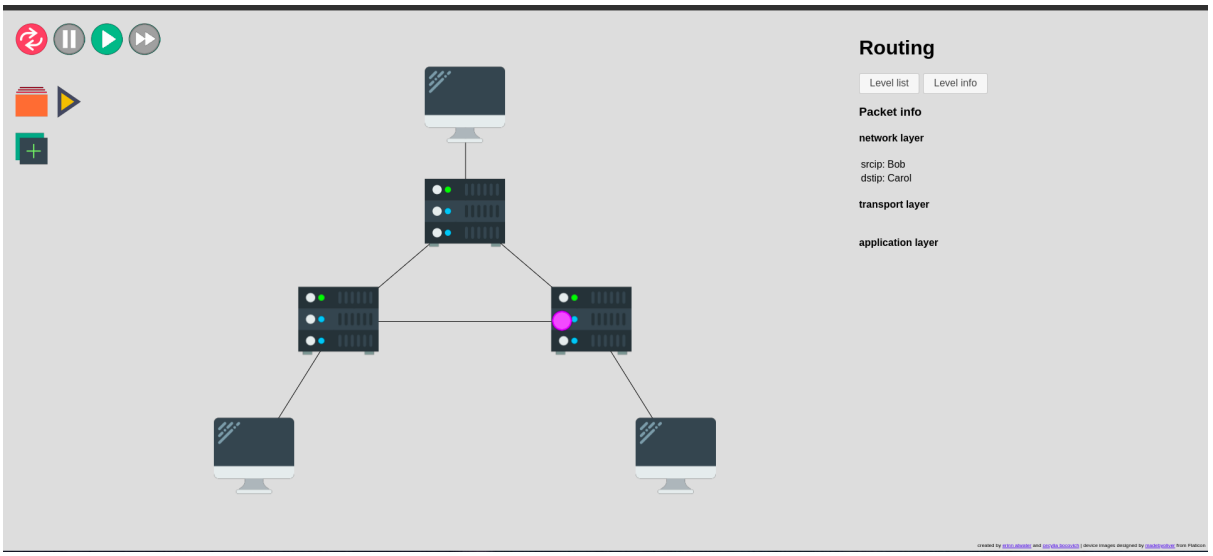
Output:

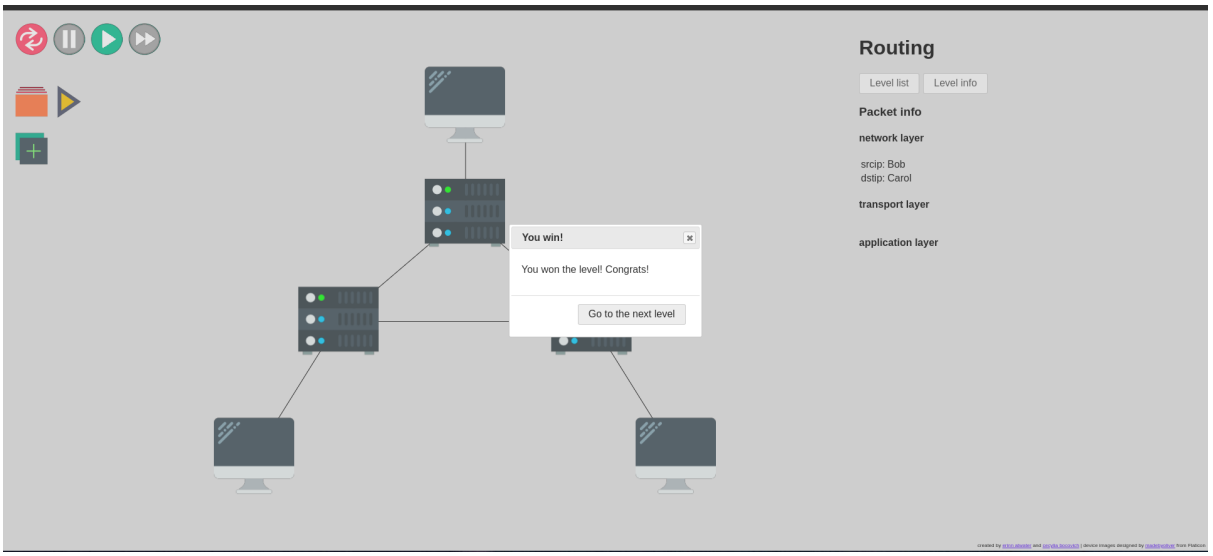



Routing
Level list
Level info
Device info
IP address: Bob
Waiting for netsim.erinn.io...


Routing
Level list
Level info
Device info
IP address: Carol


Routing
Level list
Computers are usually not connected directly, but are accessible through a series of routers. A router operates much like a postal office. When it receives a packet, it looks at the destination and determines which route to send it on. They usually choose the route that is closest to the destination computer. They keep track of all their routes in a routing table.
Pause the simulation and look at one of the packets. It contains only the srcip and dstip headers we saw in the earlier levels. There is no extra information to tell the routers how to send the packet. Instead, this information is stored in the router's routing table.
To pass this level, send a packet from Bob's computer to Carol's computer.
Level Objectives
send a packet from Bob to Carol
Update packet
Sent from:
Bob
network
srcip:
Bob
dstip:
Carol
transport
proto:
ttl:
application
type:
key:
Repeat: 1
Remove
Update





Post Lab Question- Answers (If Any):

1. The experiment demonstrated corresponds to which layer?

As we used understood the process of router it belongs to Network Layer

2. List the protocols belonging to the layer.

ARP- ARP stands for Address Resolution Protocol.

RARP- RARP stands for Reverse Address Resolution Protocol.

ICMP- ICMP stands for Internet Control Message Protocol.

IGMP- IGMP stands for Internet Group Message Protocol.

3. List any two functions of that layer

- When data is to be sent, the network layer accepts data from the transport layer above, divides and encapsulates it into packets and sends it to the data link layer. The reverse procedure is done during receiving data.
- The network layer is responsible for routing packets from the source host to the destination host. The routes can be based upon static tables that are rarely changed; or they can be automatically updated depending upon network conditions.

Outcomes:

CO3. Build the skills of sub-netting and routing mechanisms.

Conclusion:

Understood how the router uses the routing table to get to the destination address by using the network simulator

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