Assignment – 2

* **Making connection: a. Tree**

**b. Bus**

**c. Ring**

**d. Mesh**

1. **Tree:**

* Procedure:

Step 1 : Take 1 root switch (Core Layer).

Step 2 : Take 2 distribution switches (Middle Layer).

Step 3 : Take 4 access switches (Edge Layer).

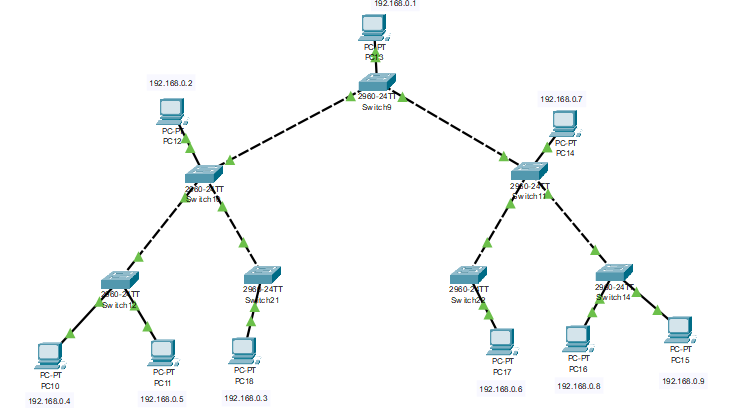
Step 4 : Take multiple PCs & assign different IP in same class C.

Step 5 : Connect root switch → distribution switches (Fiber/Copper).

Step 6 : Connect distribution switches → access switches (Straight-Through).

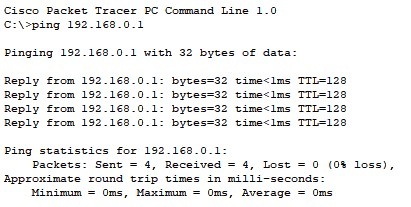
Step 7 : Connect PCs → access switches (Straight-Through).

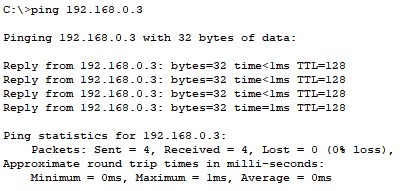
* Diagram:

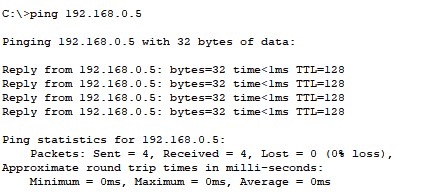


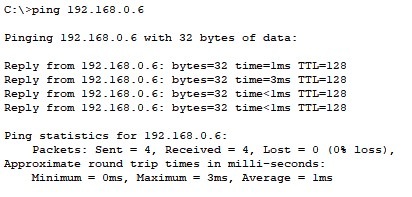
* Output’s:

Let’s test the network from “PC10” by writing below command in PC10’s command prompt or CMD & check replies come or not from other PC’s**:**



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Replies are successful, the connection works!

1. **Bus:**

* Procedure:

Step 1 : Take 4 switches and design them like bus.

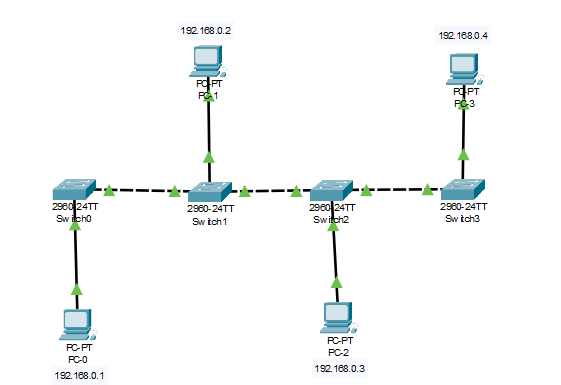
Step 4 : Take 4 PCs and assign different IP in same class C.

Step 5 : Connect individual switch → each computer or PC.

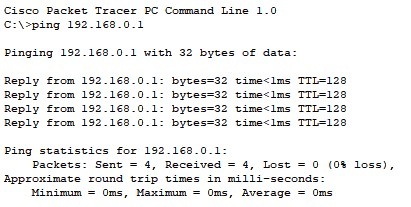
Step 6 : Connect 4 switches using the copper cross-over.

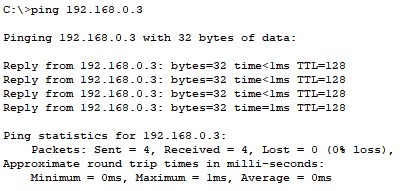
Step 7 : Test the network by ping a PC from other PC’s command prompt.

* Diagram:



* Output’s:



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Replies are successful, the connection works!

1. **Ring:**

* Procedure:

Step 1 : Take 4 switches and design them like ring which look like in diagram.

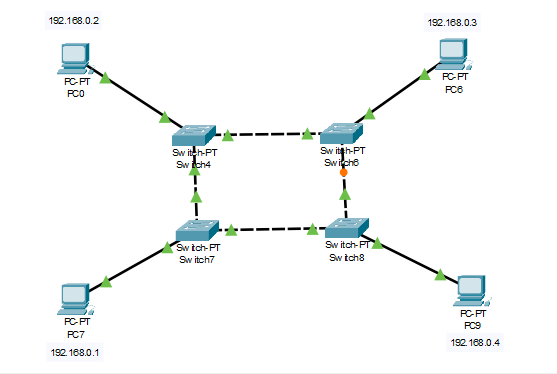
Step 4 : Take 4 PCs and assign different IP in same class C.

Step 5 : Connect individual switch → each computer or PC.

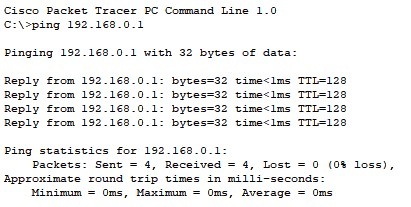
Step 6 : Connect 4 switches in ring like structure using the copper cross-over.

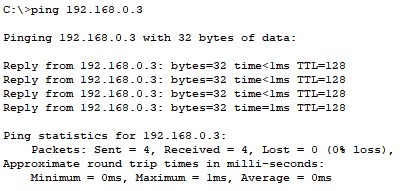
Step 7 : Test the network by ping a PC from other PC’s command prompt.

* Diagram:



* Output’s:



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1. **Mesh:**

* Procedure:

Step 1 : Take 4 switches and design them like mesh which look like in diagram.

Step 4 : Take 4 PCs and assign different IP in same class C.

Step 5 : Connect individual switch → each computer or PC.

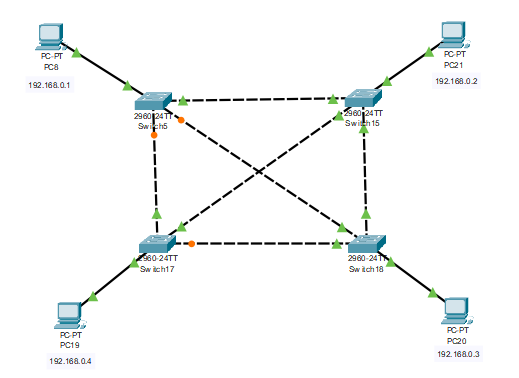
Step 6 : Connect 4 switches in mesh-like structure using the copper cross-

over just like that each switch connected rest of other switch in the

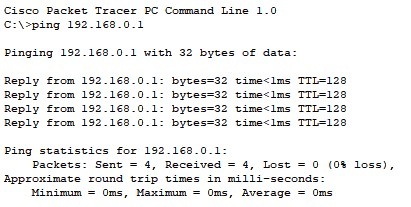
network.

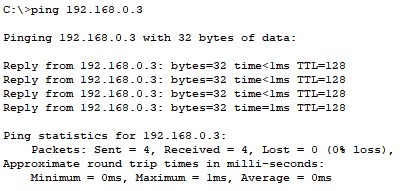
Step 7 : Test the network by ping a PC from other PC’s command prompt.

* Diagram:



* Output’s:



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Replies are successful, the connection works!