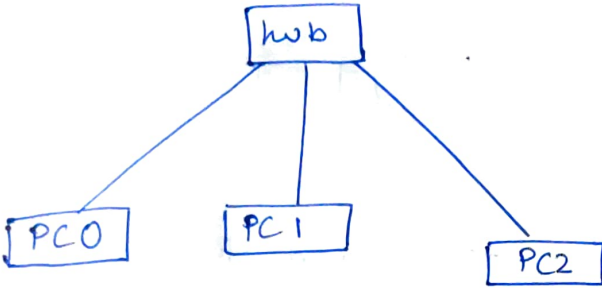


Lab 1

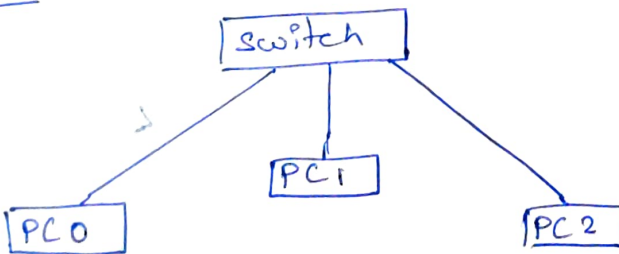
hub



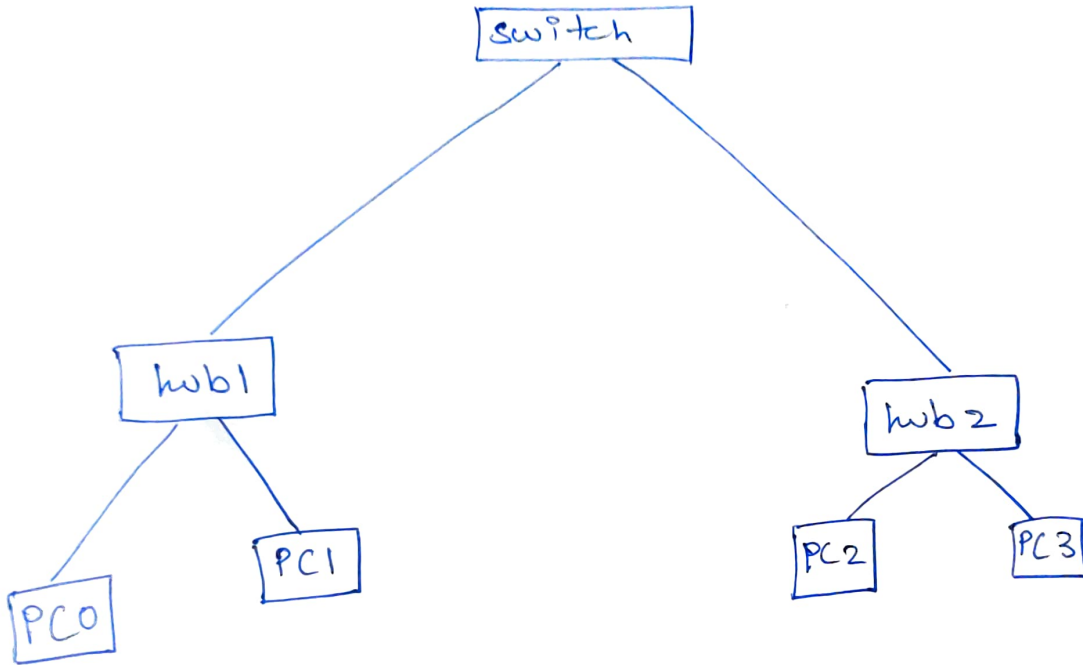
Hub is a simple device that does not learn its environment. i.e if PC0 has to send a package to PC2 through hub, then PC1 will also receive it.

We use copper straight-through wire for connections.

switch



Switch is a smart device that learns which system is connected to which port. For example, if PC0 sends package to PC2 through a switch, then PC1 will not receive anything. Straight through wires are used.

Switch + hub :

The PCs are connected to hubs through straight through wires and the hubs are connected to the switch through cross-over wires.

When PC0 wants to send a message to PC3, it will go to hwb1, hwb1 will send it to switch and PC1, PC1 will reject it. The switch will send the message to hwb2, hwb2 will send it to PC2 & PC3. PC3 accepts and sends acknowledgment back to hwb2, hwb2 will send this to PC2 and switch. The switch will send it to hwb1. Hwb1 will push it through to PC0 and PC1. PC0 will accept.