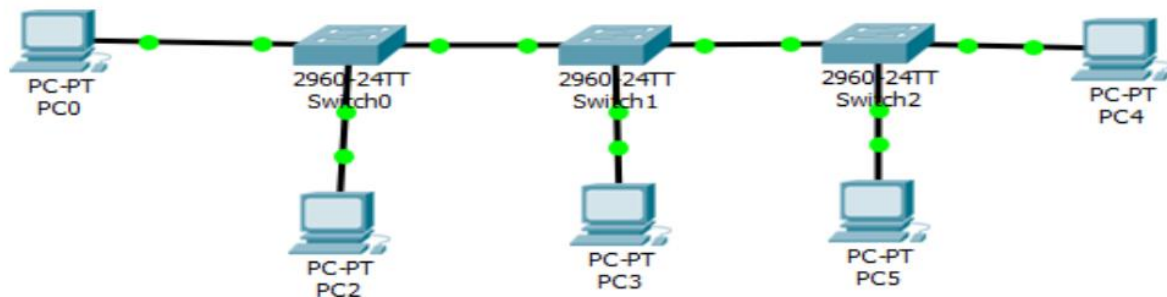# PRACTICAL-2

AIM:

Create a network topology which connects 3 switches directly, with a host of each switch in mininet environment.

THEORY:

- To create this topology, we will use miniedit.

- MiniEdit is a simple GUI (Graphical User Interface) editor for Mininet.

- MiniEdit is an experimental tool created to demonstrate how Mininet can be extended.

The icons represent the following tools:

The *Select* tool is used to move nodes around on the canvas. Click and drag any existing node.

The *Host* tool creates nodes on the canvas that will perform the function of host computers. Click on the tool, then click anywhere on the canvas you wish to place a node.

The *Switch* tool creates OpenFlow-enabled switches on the canvas. These switches are expected to be connected to a controller.

The *Legacy Switch* tool creates a learning Ethernet switch with default settings. The switch will operate independently, without a controller.

The *Legacy Router* tool creates a basic router that will operate independently, without a controller. It is basically just a host with IP Forwarding enabled

The *NetLink* tool creates links between nodes on the canvas. Create links by selecting the *NetLink* tool, then clicking on one node and dragging the link to the target node.

The *Controller* tool creates a controller. Multiple controllers can be added. By default, the MiniEdit creates a mininet openFlow referencecontroller, which implements the behavior of a learning switch. Other controller types can be configured.
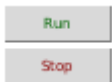
The *Run* starts Mininet simulation scenario currently displayed in the MiniEdit canvas. The *Stop* button stops it. When MininEdit simulation is in the "Run" state, right-clicking on network elements reveals operational functiosn such as opening a terminal window, viewing switch configuration, or setting the status of a link to "up" or "down".
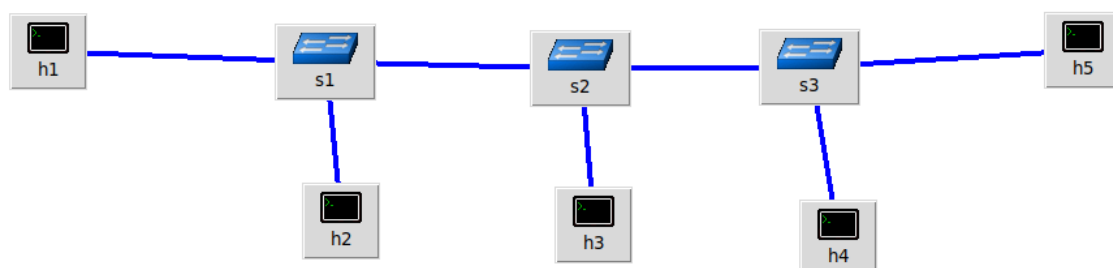
TOPOLOGY:

- To start the miniedit, Enter the following command

```
parth642001@ubuntu:~/mininet/mininet/examples$ python3 miniedit.py
```
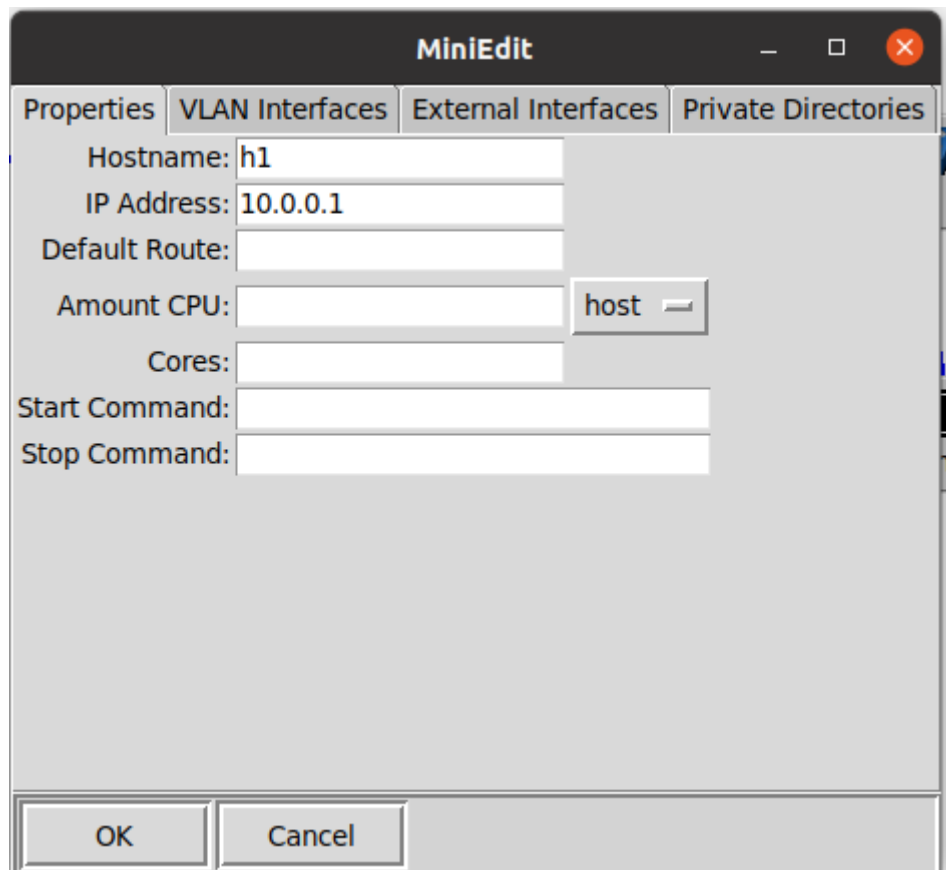
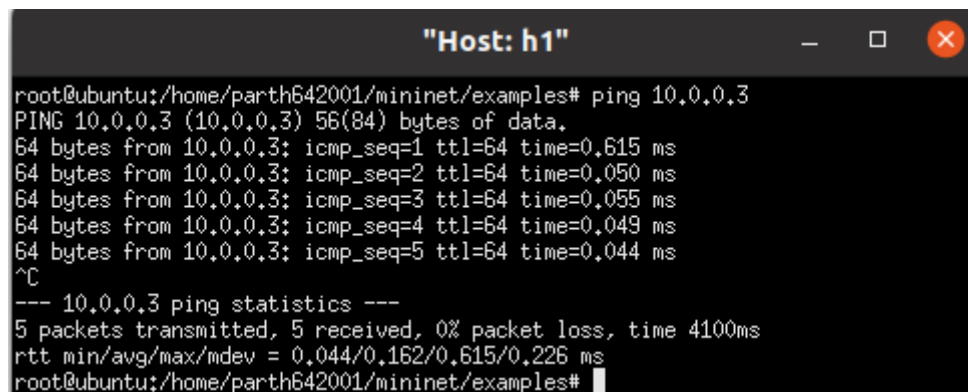- The following window will be prompted

- Create the following topology with the help of miniedit components

- Now, right click on h1, then click on properties option

- The following option will open

- Follow the same procedure for all the hosts.

- Click on Run button

- Right click on h1 and select Terminal option.

- Then perform the ping operation.

- Thus, the connection is established.

CONCLUSION:

By performing the above practical, I learnt the basics of MiniEdit and how to create a simple topology in it and how to test the topology.