

PRACTICALS
COMPUTER NETWORKS

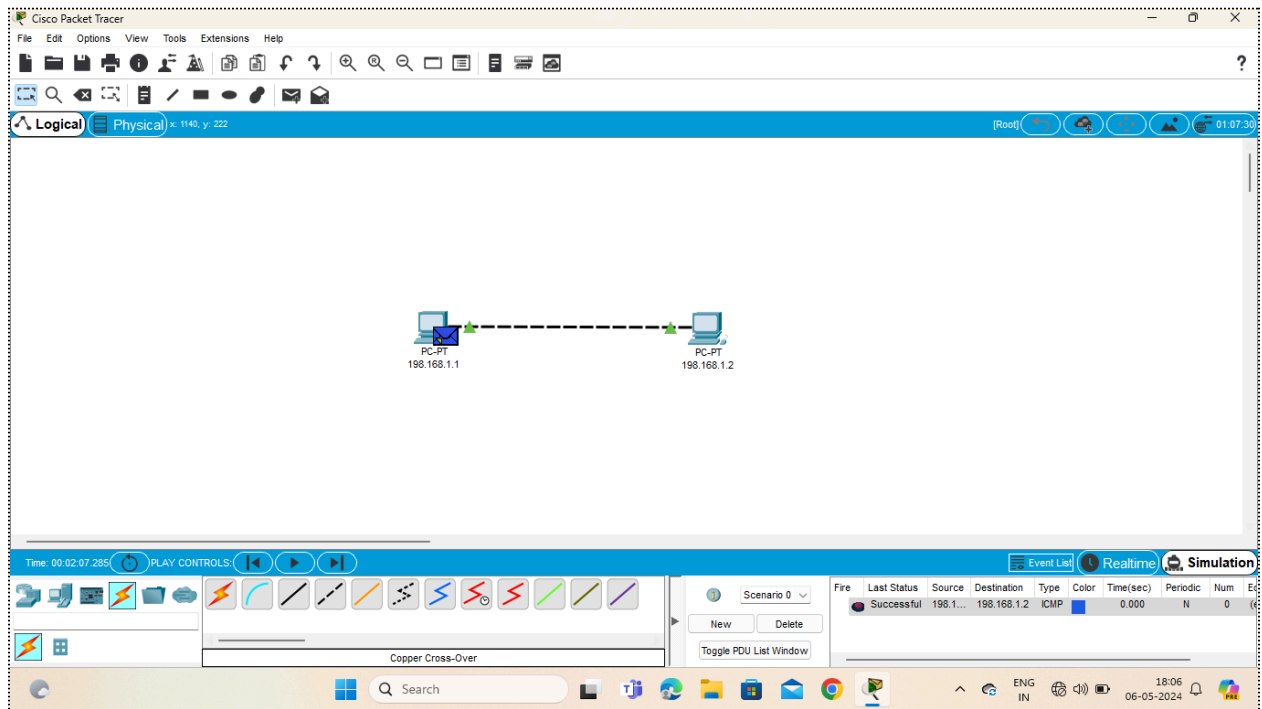
NAME : PRACHI KUMARI

COURSE : B.Sc. COMP. SCI. HONS.

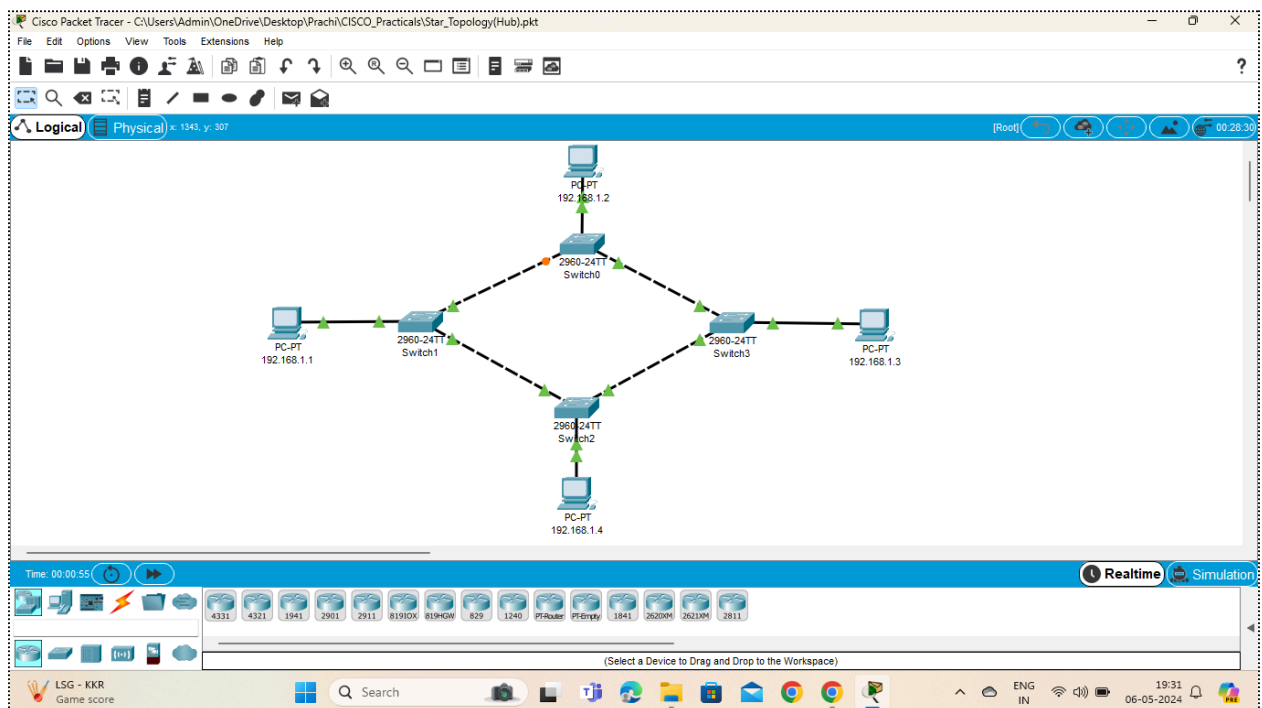
ROLL NO : 22/BS(H)CS/16112

SEMESTER : IV (B)

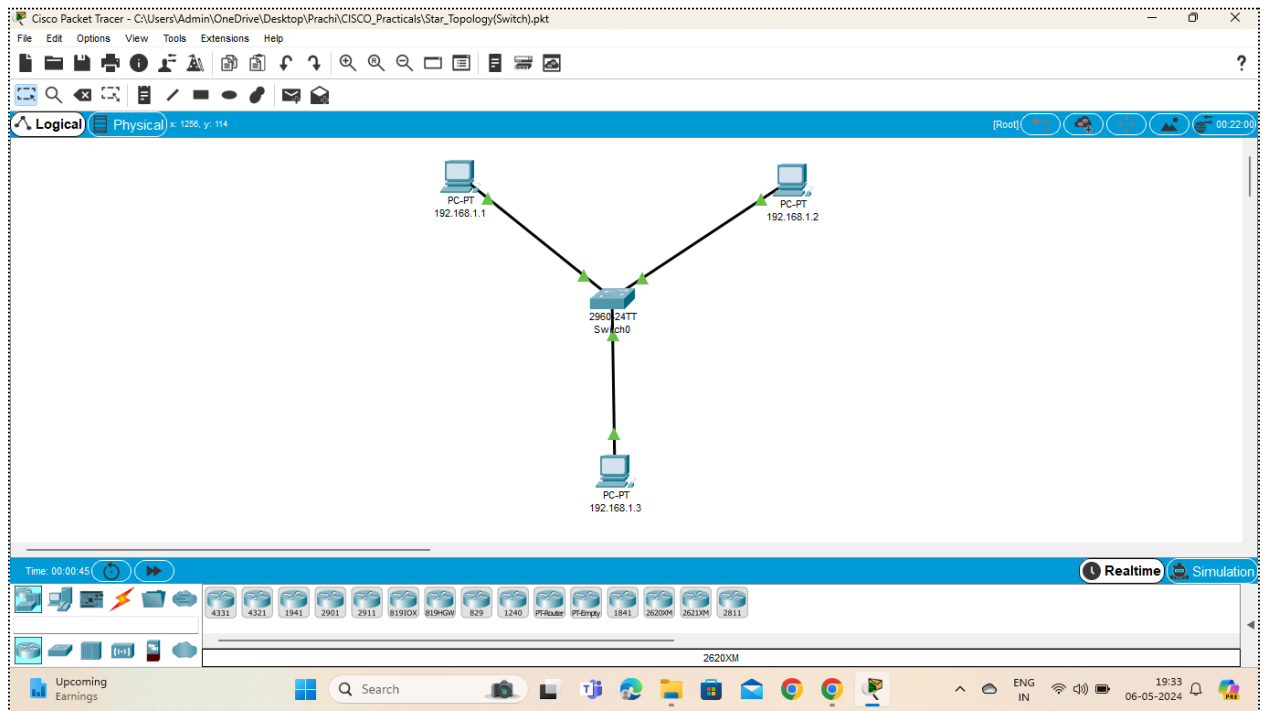
1.)PC to PC communication using ethernet.



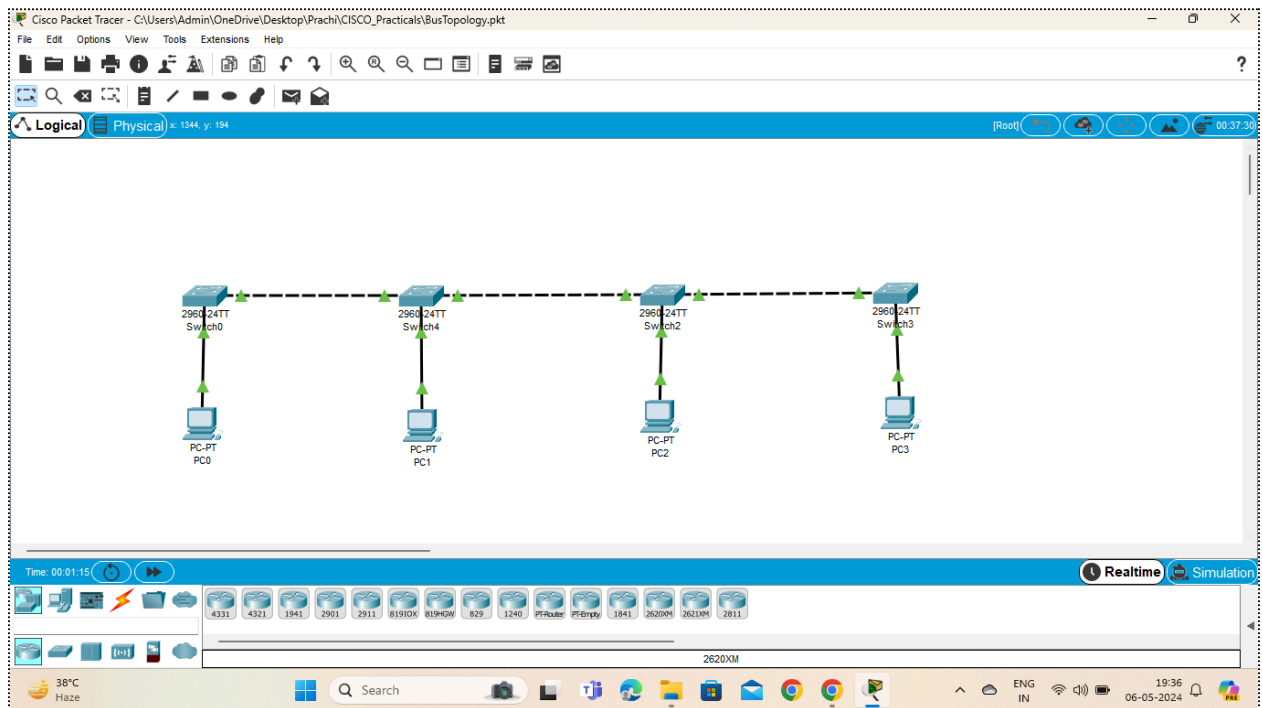
2.)Star topology using a hub.



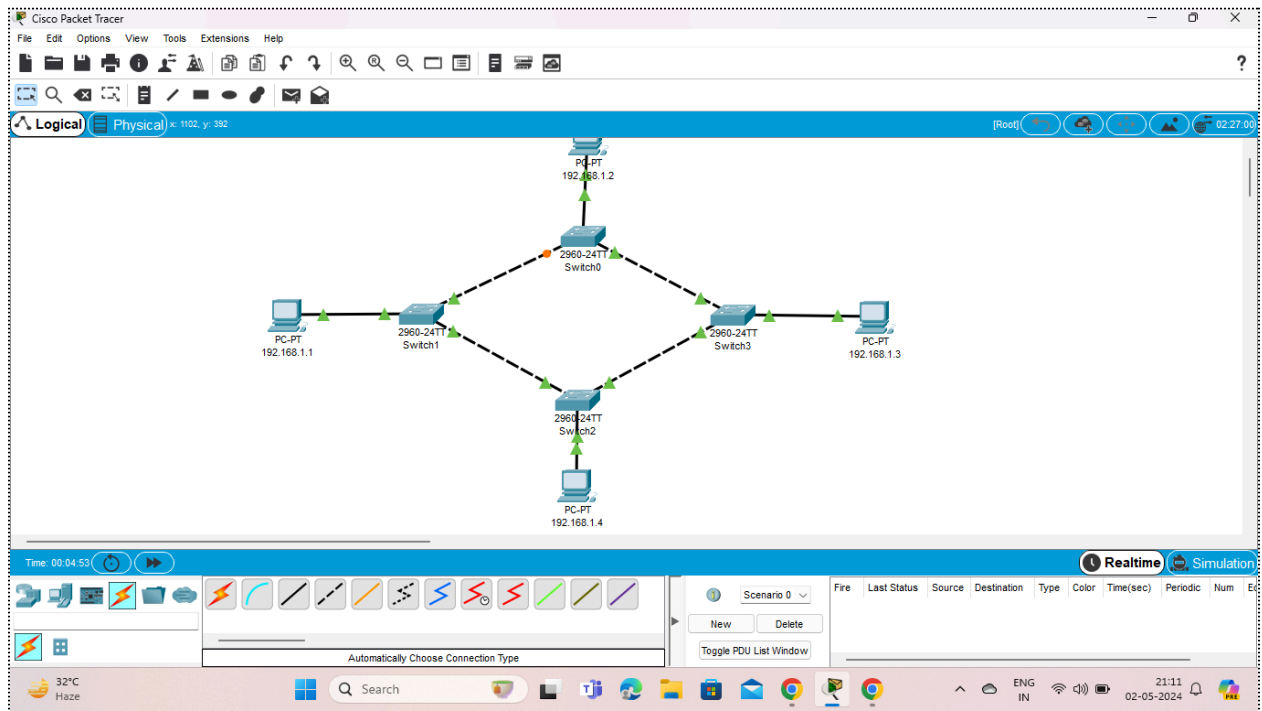
2.)Star topology using a switch.



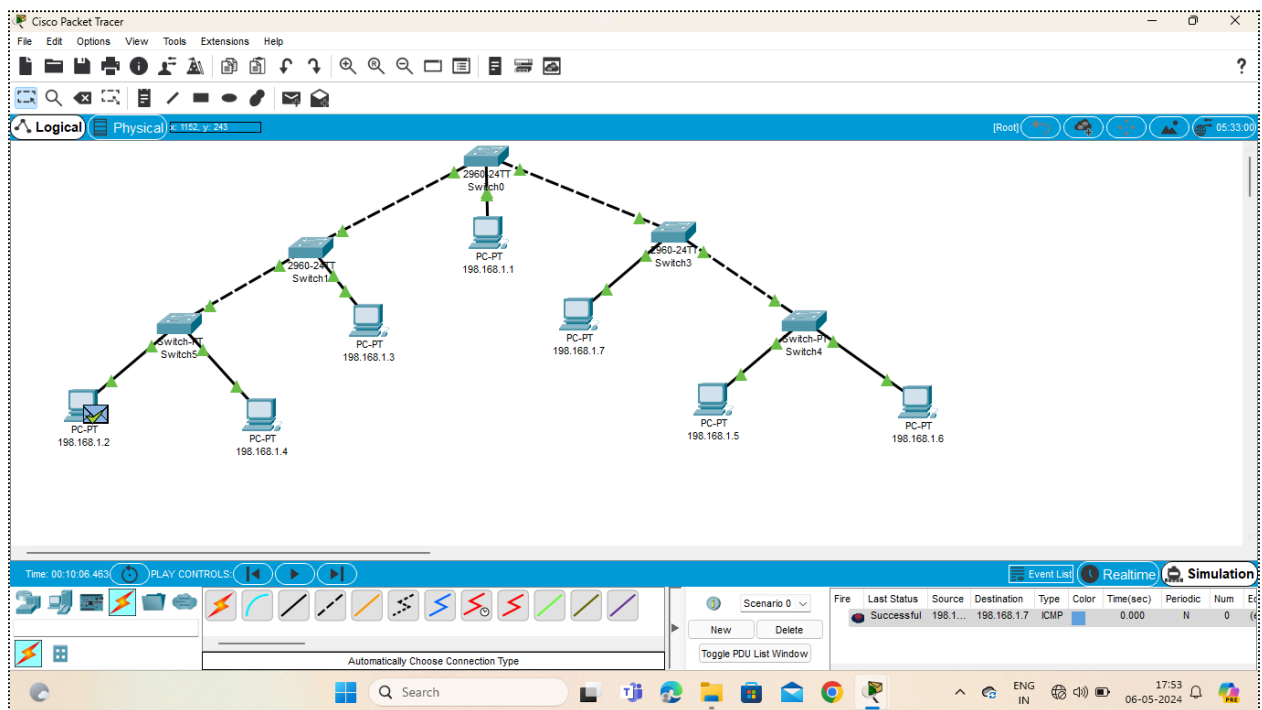
3.)Bus topology.



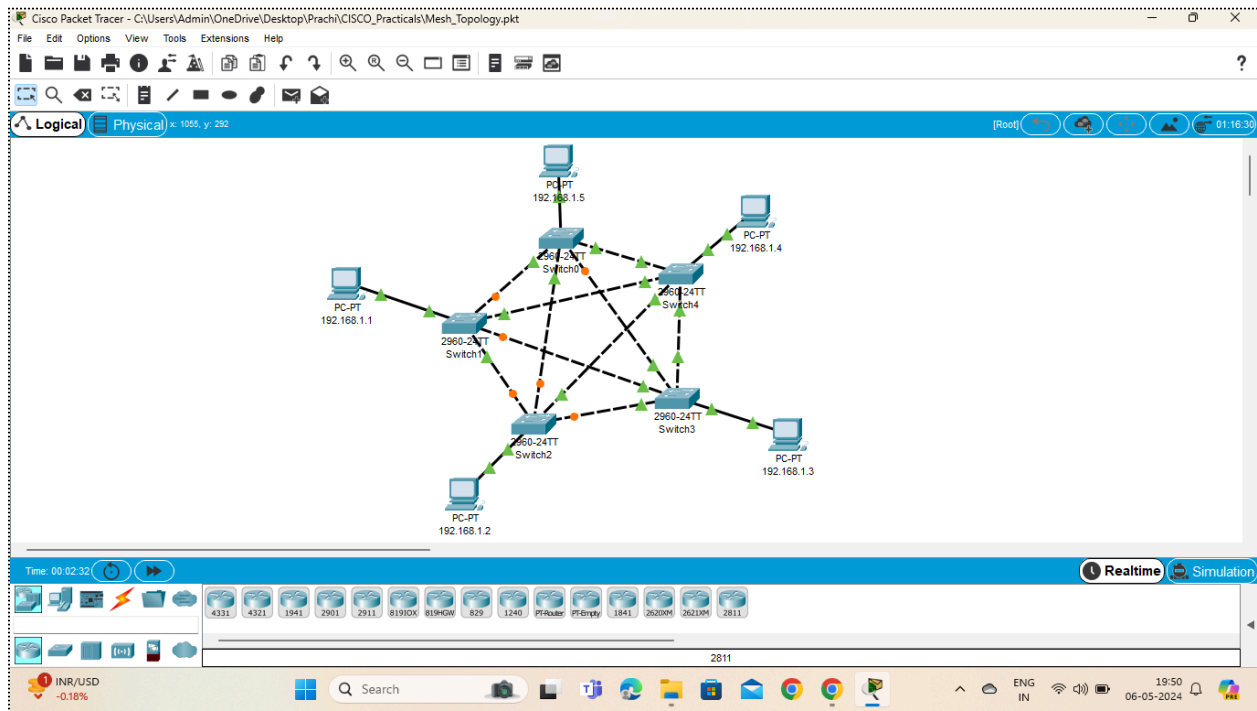
4.)Ring topology.



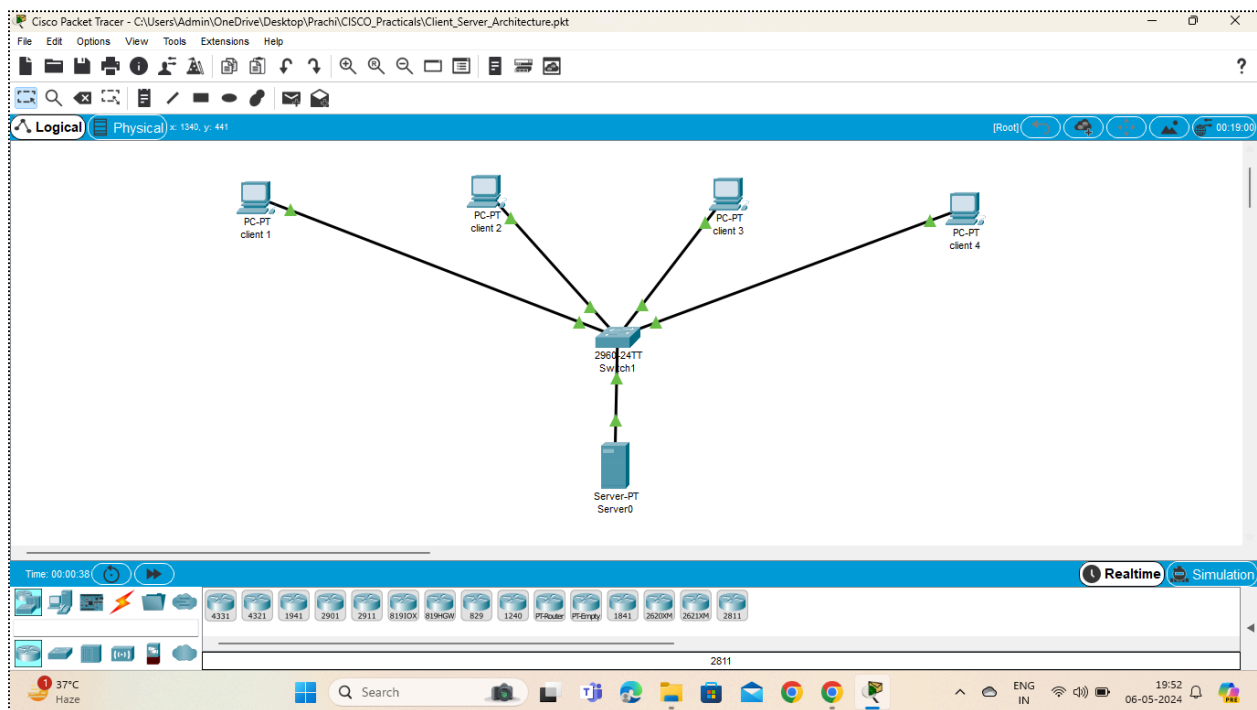
5.)Tree topology.



6.)Mesh topology.



7.)Client Server Network.



8.)Switch Configuration.

Enable : To enter privilege mode

```
Physical  Config  CLI  Attributes
IOS Command Line Interface

Switch>enable
Switch#enable
Switch#config t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname PrachiKumari
PrachiKumari(config)#banner motd $
Enter TEXT message.  End with the character '$'.
----- Hello! Please enter your password to access the switch configuration ----- $

PrachiKumari(config)#exit
PrachiKumari#
%SYS-5-CONFIG_I: Configured from console by console
```

sh run : To show current configuration details

```
PrachiKumari#sh run
Building configuration...

Current configuration : 1201 bytes
!
version 12.2
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname PrachiKumari
!
!
!
!
!
!
spanning-tree mode pvst
```

Banner showed by sh run :

```
banner motd ^C
----- Hello! Please enter your password to access the switch configuration ----- ^C
!
!
!
line con 0
!
line vty 0 4
  login
line vty 5 15
  login
!
.
```

config t : To enter in the configuration terminal.

```
PrachiKumari#config t
Enter configuration commands, one per line. End with CNTL/Z.
PrachiKumari(config)#line con 0
PrachiKumari(config-line)#password 123@abc
PrachiKumari(config-line)#login
PrachiKumari(config-line)#enable secret abcd@1234
PrachiKumari(config)#
PrachiKumari(config)#exit
PrachiKumari#
%SYS-5-CONFIG_I: Configured from console by console
```

User side after above configuration:

```
----- Hello! Please enter your password to access the switch configuration -----
User Access Verification

Password:
Password:
Password:

PrachiKumari>enable
Password:
PrachiKumari#
PrachiKumari#
```

9.)Router configuration

Enable : To enter privilege mode

```
Router>enable
Router#enable
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname Prachi_1
```

Banner motd : To set banner (message of the day).

```
Prachi_1(config)#banner motd *
Enter TEXT message. End with the character '*'.
===== Hello! welcome to router configuration =====

----- Please enter your password ----- *

Prachi_1(config)#exit
Prachi_1#
%SYS-5-CONFIG_I: Configured from console by console
```

Showing banner using sh run:

```
!
banner motd ^C
===== Hello! welcome to router configuration =====
----- Please enter your password ----- ^C
!
!
!
!
!
line con 0
!
line aux 0
```

config t : To enter configuration terminal.

```
Prachi_1#enable
Prachi_1#config t
Enter configuration commands, one per line. End with CNTL/Z.
Prachi_1(config)#line con 0
Prachi_1(config-line)#password prachil23
Prachi_1(config-line)#login
Prachi_1(config-line)#enable secret admin@123
Prachi_1(config)#exit
Prachi_1#
%SYS-5-CONFIG_I: Configured from console by console
```

User side after configuration:

```
===== Hello! welcome to router configuration =====
----- Please enter your password -----

User Access Verification

Password:
Password:

Prachi_1>enable
Password:
Password:
Prachi_1#
Prachi_1#sh run
Building configuration...

Current configuration : 885 bytes
!
```