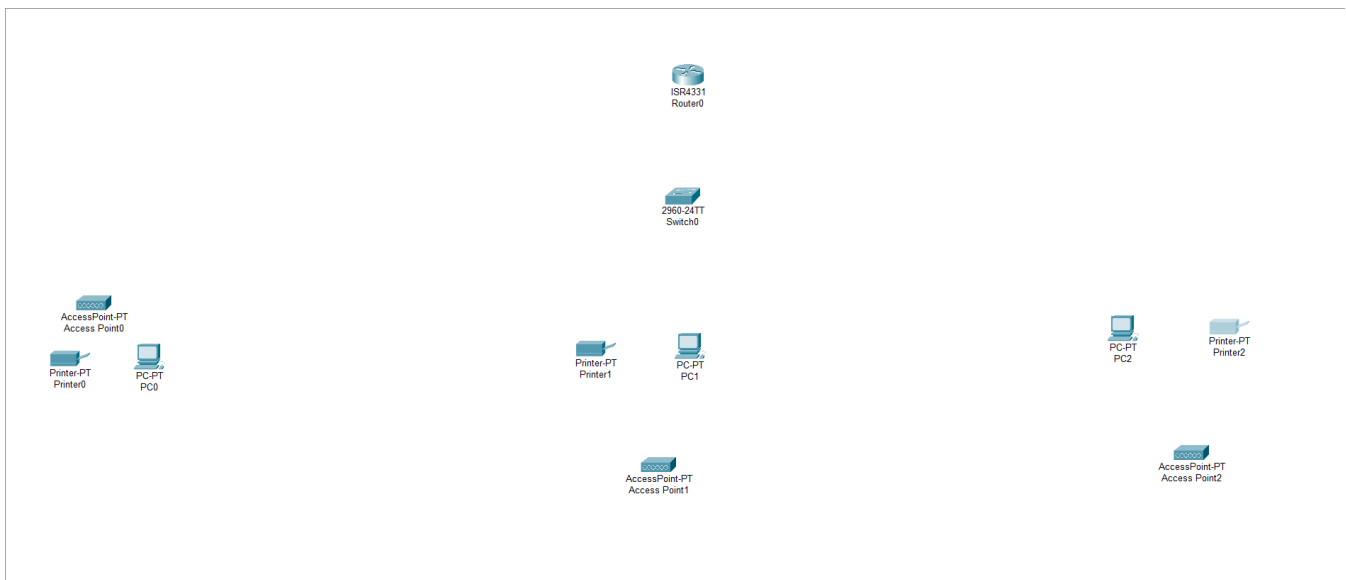
 Marwadi University Marwadi Chandarana Group	Marwadi University Faculty of Engineering and Technology Department of Information and Communication Technology	
Subject: Computer Networks (01CT0503)	Aim: Guided Project.	
Experiment No: 14	Date: 14-11-2024	Enrolment No: 92200133030


Aim: Guided Project.

Step – 1:- Take One Router and Switch

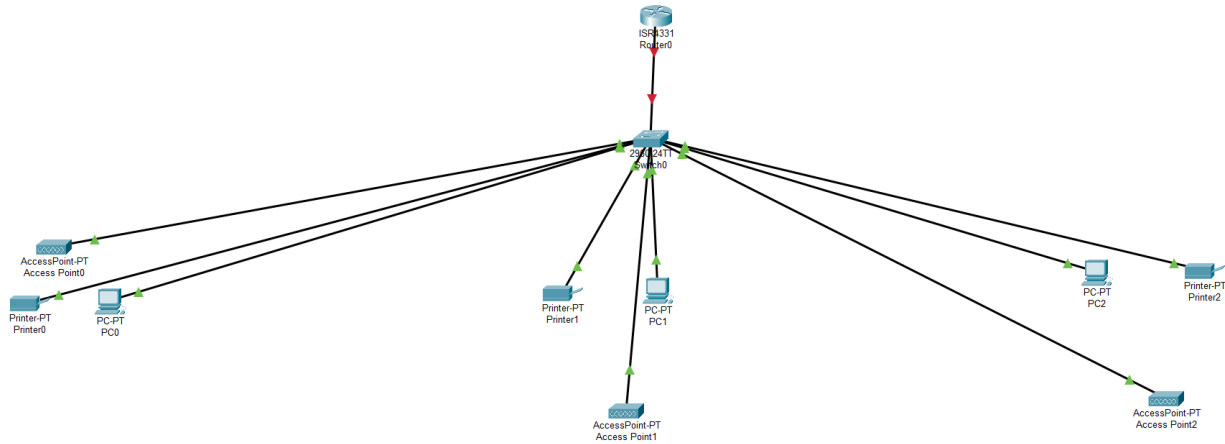


Step – 2 :- We are having three departments therefore we are taking one pc , printer and access point for all the department.



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Step – 3 :- Now Connect the devices using copper straight through cable.



Step – 4 :- Now Configure the Tablets Wireless SSID to HomeGateway.

Now we will create three VLAN for every department

```
Switch>enable
Switch#config t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int range fa0/2-4
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 10
% Access VLAN does not exist. Creating vlan 10
Switch(config-if-range)#int range fa0/5-7
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 20
% Access VLAN does not exist. Creating vlan 20
Switch(config-if-range)#int range fa0/8-10
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 30
% Access VLAN does not exist. Creating vlan 30
Switch(config-if-range)#do wr
Building configuration...
[OK]
Switch(config-if-range)#exit
Switch(config)#
Switch(config)#do sh start
Using 1539 bytes
!
version 15.0
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Switch
!
!
!
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
!
interface FastEthernet0/1
!
interface FastEthernet0/2
switchport access vlan 10
switchport mode access
!
interface FastEthernet0/3
```



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```
!  
spanning-tree mode pvst  
spanning-tree extend system-id  
!  
interface FastEthernet0/1  
!  
interface FastEthernet0/2  
switchport access vlan 10  
switchport mode access  
!  
interface FastEthernet0/3  
switchport access vlan 10  
switchport mode access  
!  
interface FastEthernet0/4  
switchport access vlan 10  
switchport mode access  
!  
interface FastEthernet0/5  
switchport access vlan 20  
switchport mode access  
!  
interface FastEthernet0/6  
switchport access vlan 20  
switchport mode access  
!  
interface FastEthernet0/7  
switchport access vlan 20  
switchport mode access  
!  
interface FastEthernet0/8  
switchport access vlan 30  
switchport mode access  
!  
interface FastEthernet0/9  
switchport access vlan 30  
switchport mode access  
!  
interface FastEthernet0/10  
switchport access vlan 30  
switchport mode access  
!  
interface FastEthernet0/11  
!  
interface FastEthernet0/12  
!  
interface FastEthernet0/13
```

```
switchport mode access  
!  
interface FastEthernet0/10  
switchport access vlan 30  
switchport mode access  
!  
interface FastEthernet0/11  
!  
interface FastEthernet0/12  
!  
interface FastEthernet0/13  
!  
interface FastEthernet0/14  
!  
interface FastEthernet0/15  
!  
interface FastEthernet0/16  
!  
interface FastEthernet0/17  
!  
interface FastEthernet0/18  
!  
interface FastEthernet0/19  
!  
interface FastEthernet0/20  
!  
interface FastEthernet0/21  
!  
interface FastEthernet0/22  
!  
interface FastEthernet0/23  
!  
interface FastEthernet0/24  
!  
interface GigabitEthernet0/1  
!  
interface GigabitEthernet0/2  
!  
interface Vlan1  
no ip address  
shutdown  
!  
!  
!  
!  
line con 0
```

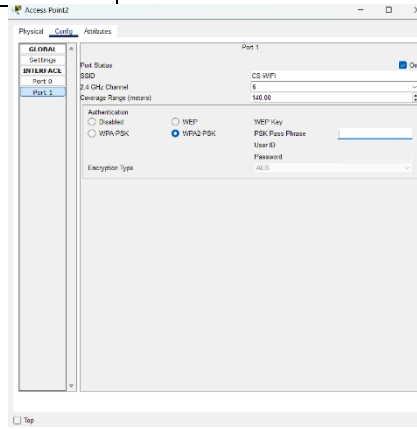

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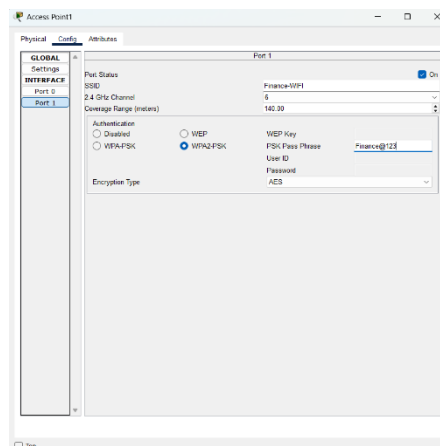
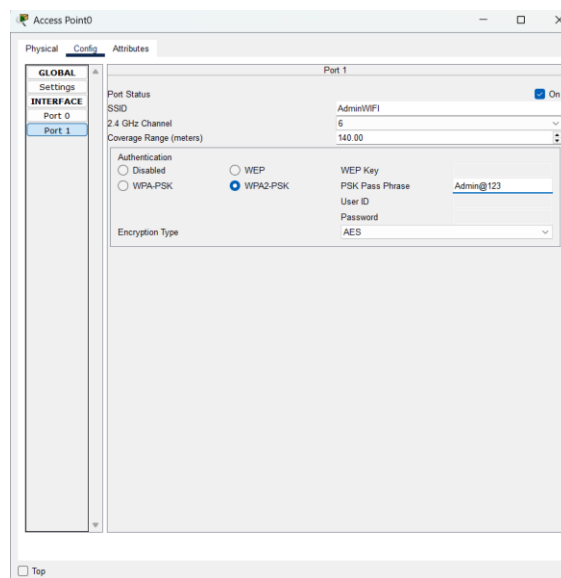
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Step – 7:- Now we will configure Access Point



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Conclusion:-

By Performing this Experiment I Learnt How the actual small size office network is configured.how the difeerent departments assigned different VLAN and how the network is designed , subnet mask is calculated . access points assigned passowerd.and it also help me gained a understanding of network design and engineering. This help me gain a deeper understanding and apply pratical concepts with the help of pratical scenario.