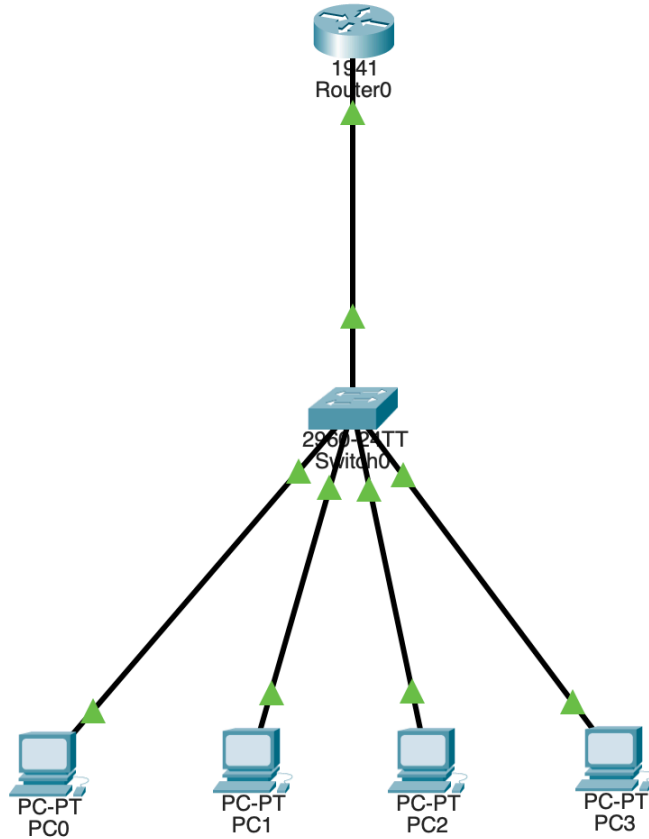# Aim: Implement VLAN in Cisco Packet Tracer

Simulation Diagram:

IP Configuration:
PC0 - 192.168.10.2 | 10.0.0.0
PC1 - 192.168.10.3 | 10.0.0.0
PC2 - 192.168.11.2 | 10.0.0.0
PC3 - 192.168.11.3 | 10.0.0.0

Switch:

```
Press RETURN to get started!
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed
state to up
```

```
%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed
state to up
%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed
state to up
%LINK-5-CHANGED: Interface FastEthernet0/4, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed
state to up
Switch>
Switch>
Switch>
Switch>config terminal
              ^
% Invalid input detected at '^' marker.

Switch>vlan
Translating "vlan"...domain server (255.255.255.255)
% Unknown command or computer name, or unable to find computer address
Switch>config terminal
              ^
% Invalid input detected at '^' marker.

Switch>vlan 2
           ^
% Invalid input detected at '^' marker.

Switch>en
Switch#vlan
Translating "vlan"...domain server (255.255.255.255)
% Unknown command or computer name, or unable to find computer address
Switch#vlan 2
           ^
% Invalid input detected at '^' marker.

Switch#config terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#vlan 2
Switch(config-vlan)#name CSE
Switch(config-vlan)#exit
Switch(config)#vlan 3
Switch(config-vlan)#name IT
Switch(config-vlan)#exit
```

```
Switch(config)#interface range fa0/2-3
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 2
Switch(config-if-range)#exit
Switch(config)#interface range fa0/4-5
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 3
Switch(config-if-range)#exit
Switch(config)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed
state to up
Switch(config)#
```

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TARPOR NEXT LINE PROCEED KORBIII

```
Switch(config)#interface gi 0/1
Switch(config-if)#switch port mode trunk
                             ^
% Invalid input detected at '^' marker.

Switch(config-if)#switchport mode trunk
Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed
state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed
state to up
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
Switch#
Switch#show vlan brief
VLAN Name                             Status    Ports
---- -------------------------------- ---------
     -------------------------------
1    default                          active    Fa0/1, Fa0/6, Fa0/7, Fa0/8
                                                Fa0/9, Fa0/10, Fa0/11,
```

```
Fa0/12
                                              Fa0/13, Fa0/14, Fa0/15,
Fa0/16
                                              Fa0/17, Fa0/18, Fa0/19,
Fa0/20
                                              Fa0/21, Fa0/22, Fa0/23,
Fa0/24
                                              Gig0/2
2    CSE                            active   Fa0/2, Fa0/3
3    IT                             active   Fa0/4, Fa0/5
1002 fddi-default                   active
1003 token-ring-default             active
1004 fddinet-default                active
1005 trnet-default                  active
Switch#
```

Router0

```
Would you like to enter the initial configuration dialog? [yes/no]: no


Press RETURN to get started!



Router>
Router>interface gi 0/0
                 ^
% Invalid input detected at '^' marker.

Router>en
Router#config terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface gi 0/0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed
state to up
```

```
Router(config-if)#interface gi0/0.1
Router(config-subif)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0.1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0.1,
changed state to up

Router(config-subif)#encapsulation dot 1 q 2
                                            ^
% Invalid input detected at '^' marker.

Router(config-subif)#encapsulation dot1q 2
Router(config-subif)#ip address 192.168.10.1 255.255.255.0
Router(config-subif)#exit
Router(config)#interface gi 0/0.2
Router(config-subif)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0.2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0.2,
changed state to up

Router(config-subif)#encapsulation dot1q 3
Router(config-subif)#ip address 192.168.11.1 255.255.255.0
Router(config-subif)#exit
Router(config)#
Router(config)#
Router(config)#
```

NOW GO BACK TO SWITCH KA CODE

Router0

```
Would you like to enter the initial configuration dialog? [yes/no]: no


Press RETURN to get started!



Router>
Router>interface gi 0/0
                    ^
% Invalid input detected at '^' marker.

Router>en
Router#config terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#interface gi 0/0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up

Router(config-if)#interface gi0/0.1
Router(config-subif)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0.1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0.1, changed state to up

Router(config-subif)#encapsulation dot 1 q 2
                                            ^
% Invalid input detected at '^' marker.

Router(config-subif)#encapsulation dot1q 2
Router(config-subif)#ip address 192.168.10.1 255.255.255.0
Router(config-subif)#exit
Router(config)#interface gi 0/0.2
Router(config-subif)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0.2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0.2, changed state to up

Router(config-subif)#encapsulation dot1q 3
Router(config-subif)#ip address 192.168.11.1 255.255.255.0
Router(config-subif)#exit
Router(config)#
Router(config)#
Router(config)#
```

Switch

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up

%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up

%LINK-5-CHANGED: Interface FastEthernet0/4, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4, changed state to up


Switch>
Switch>
Switch>
Switch>config terminal
              ^
% Invalid input detected at '^' marker.

Switch>vlan
Translating "vlan"...domain server (255.255.255.255)
% Unknown command or computer name, or unable to find computer address

Switch>config terminal
              ^
% Invalid input detected at '^' marker.

Switch>vlan 2
            ^
% Invalid input detected at '^' marker.

Switch>en
Switch#vlan
Translating "vlan"...domain server (255.255.255.255)
% Unknown command or computer name, or unable to find computer address

Switch#vlan 2
            ^
% Invalid input detected at '^' marker.

Switch#config terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#vlan 2
Switch(config-vlan)#name CSE
Switch(config-vlan)#exit
Switch(config)#vlan 3
Switch(config-vlan)#name IT
Switch(config-vlan)#exit
Switch(config)#interface range fa0/2-3
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 2
Switch(config-if-range)#exit
Switch(config)#interface range fa0/4-5
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#switchport access vlan 3
Switch(config-if-range)#exit
Switch(config)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up
```

```
Switch(config-if-range)#switchport access vlan 3
Switch(config-if-range)#exit
Switch(config)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

Switch(config)#
Switch(config)#interface gi 0/1
Switch(config-if)#switch port mode trunk
                           ^
% Invalid input detected at '^' marker.

Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

Switch(config-if)#
Switch(config-if)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#
Switch#show vlan brief

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Fa0/1, Fa0/6, Fa0/7, Fa0/8
                                                Fa0/9, Fa0/10, Fa0/11, Fa0/12
                                                Fa0/13, Fa0/14, Fa0/15, Fa0/16
                                                Fa0/17, Fa0/18, Fa0/19, Fa0/20
                                                Fa0/21, Fa0/22, Fa0/23, Fa0/24
                                                Gig0/2
2    CSE                              active    Fa0/2, Fa0/3
3    IT                               active    Fa0/4, Fa0/5
1002 fddi-default                     active
1003 token-ring-default               active
1004 fddinet-default                  active
1005 trnet-default                    active
Switch#
```