



**BUBT** | BANGLADESH UNIVERSITY OF  
BUSINESS AND TECHNOLOGY  
*Committed to Academic Excellence*

## Lab Report - 05

**Course Title** : Computer Networks Lab  
**Course Code** : CSE 320  
**Report Name** : VLAN Configuration.

### **Submitted By :**

Name : Md. Mursalin Hasan Nirob  
ID No : 21225103423  
Intake : 49  
Section : 10  
Program : B.Sc. Engg. in CSE

### **Submitted To :**

Name : Mr. Shamim Ahmed  
Assistant Professor  
Department of : CSE  
Bangladesh University of Business &  
Technology

**Date of Submission: 30/10/2024**

## 5. Programs or Procedure

### 5.1: Launch Cisco Packet Tracer.

Launch **Cisco Packet Tracer** and create a new project by selecting the **New** option from the File menu.

### 5.2: Set up the network topology:

- **Add a switch** (2960-24TT).
- **Add 9 PCs** and connect them to the switch using straight-through cables.

### 5.3: Configure VLANs on the switch:

Access the switch's CLI and enter the configuration mode:

```
Switch#en
Switch#sh vlan
```

### 5.4: Create VLANs:

```
Switch#config t
Switch(config)#vlan 1
Switch(config-vlan)#name cse
Switch(config)#vlan 2
Switch(config-vlan)#name civil
Switch(config-vlan)#vlan 3
Switch(config-vlan)#name eee
Switch(config-vlan)#exit
Switch(config)#exit
Switch#
```

### 5.5: Assign the switch ports to respective VLANs:

```
Switch(config-if)#int fa 0/1
Switch(config-if)#sw mo access
Switch(config-if)#sw access vlan 1
Switch(config-if)#int fa 0/2
Switch(config-if)#sw mo access
Switch(config-if)#sw access vlan 1
Switch(config-if)#int fa 0/3
Switch(config-if)#sw mo access
Switch(config-if)#sw access vlan 1
Switch(config)#int fa 0/4
Switch(config-if)#sw mo access
Switch(config-if)#sw access vlan 2
Switch(config-if)#int fa 0/5
```

```
Switch(config-if)#sw mo access
Switch(config-if)#sw access vlan 2
Switch(config-if)#int fa 0/6
Switch(config-if)#sw mo access
Switch(config-if)#sw access vlan 2
Switch(config-if)#int fa 0/7
Switch(config-if)#sw mo access
Switch(config-if)#sw access vlan 3
Switch(config-if)#int fa 0/8
Switch(config-if)#sw mo access
Switch(config-if)#sw access vlan 3
Switch(config-if)#int fa 0/9
Switch(config-if)#sw mo access
Switch(config-if)#sw access vlan 3
Switch(config-if)##exit
```

## 6. Inputs and Outputs

### Inputs:

Configured VLANs with PCs assigned to each VLAN.

### Outputs:

- PCs within the same VLAN should be able to communicate (ping each other).
- PCs in different VLANs should not be able to communicate unless routing is configured.

## 7. Remarks/Comments

This lab demonstrates how VLANs can be configured and tested using Cisco Packet Tracer. Proper VLAN segmentation helps in improving network efficiency and security by restricting communication between devices based on logical groups.