**CISCO COMMANDS**

There are three modes of cisco system:

1. **Enable Mode:** To enable system

Command: enable

1. **Privilege mode:** It is used to see or view previous configure commands and reset cisco router and switches

Command: Sh Run

Sh Vlan

Sh vtps Status

Reload

1. **Configure or global Mode:** To configure systems we must have to go inside configuration mode to using command: Configure Terminal at hashtag mode. In configure mode we can access al functionality of privileged mode using do prefix command.

**FUNCTIONS:**

1. Do Show run- To check previous config
2. Do Show history- To check top 10 current commands
3. Do Show IP interface brief- To check configured IP on interface
4. Hostname (Your name)- To set hostname as (your name)
5. Interface (interface name)- To go inside interface  
   For E.g. Interface fa0/1
6. IP address (IP\_address) (subnet mask)- To set IP address on interface
7. Line Console 0- To access Console Port
8. Enable Password 12345- To set password as 12345
9. Login- To set password at login

**There are three status of connectivity:**

1. Active status- It will be identified in the form of green line.
2. Ready mode- It will be identified in the form orange line.
3. Deactivate mode- It will be identified in the form of red line.

**To set the IP in PC:**

1. Click on PC
2. Go to Desktop
3. Click on IP configuration
4. If static IP- Provide the IP, Subnet mask, Gateway and DNS as per required. If DSCP, Click on DSCP to get automatic IP

**To insert IP in interface:**

1. Go to router/system
2. Enter enable, then Configure Terminal  
   Interface Fa0/1- To access interface  
   IP address- 192.168.10.1, 255.255.255.0  
   no shutdown

**Login/ Secure Console Panel**

Line console 0

Enable password <pwd>

Login

**VLAN/ DEPARTMENT SECURITY**

Whenever all the system is connected in the same network using wireless or wired media that architecture is called LAN (Local Area Network). In a LAN model system having same network can communicate to each other easily. So, there is security issue to protect this issue CISCO provide a protocol called VLAN protocol (Virtual Local Area Network). VALN divide single network into multiple virtual networks to protect LAN communication. There are several kinds of LAN/ VLAN:

1. Default VLAN- VLAN 1:

By default, ever switch having default VLAN is 1. We can use VLAN 1 but no allow to delete

1. Reserved VLAN:

This kind of VLAN is used to create new VLAN for FDDI, Token, ring generation.  
VLAN 1002, 1003, 1004, 1005

1. Costume VLAN:

It is used to create, delete, organize an manipulate by the user.  
VLAN 30, 2, 3, 4, 40

**CODING:**

Config# Vlan<Vlan no.>  
example:  
#Vlan 2  
#exit  
#Vlan 40  
exit

1. Data VLAN: Data VLAN is used to communicate computer with VIOP phone.
2. VIOP VLAN: It is used in VIOP phone.
3. Native VLAN:   
   **CODING:**

(Config)#interface range fa0/1-5- To access the range of interface  
 #SwitchPort mode Access- To access end device mode

#Switchport Access VLAN 3- Assign VLAN 3 to all interface

**VTP (VIRTUAL TRUNKING PROTOCOL):**

**COMMAND:**

**To Create Server:**  
(Config)#vtp mode server  
 #vtp domain ismt  
 #vtp password 12345

**To Create Server:**(Config)#vtp mode server  
 #vtp domain ismt  
 #vtp password 1234

**INTERVLAN**

**STEP1:**Go to Switch and create VLAN

**STEP2:**Assign VLAN and IP address to Pcs

**STEP3:**Trunk ta router (trunk switch if there is more than 2 switches)

**STEP4:**Go to router ang configure for the INTERVLAN  
(default VLAN of router id dot1Q. So, we should encapsulation the our VLAN to default VLAN of router)

**SYNTAX:**

Int fa0/0  
no shutdown

Int fa0/0.1- creating sub INTERVLAN

Int fa0/0.1  
encapsulation d  
encapsulation dot1Q VLAN (Created VLAN)  
IP add ……………. 255.255.255.0

**RIP**

**Version 1**

Config# do sh IP route- to display direct connected network  
 route rip  
 network direct\_connect\_net  
 no auto-summary

E.g. network 192.168.10.0

**Version 2**

Config# do sh IP route  
 route rip