

## **Customize Switch with Network Modules using Cisco Packet Tracer**

### **1. Open Cisco Packet Tracer**

- Launch Cisco Packet Tracer on your computer.

### **2. Add a Switch to Your Workspace**

- In the device toolbar (usually on the left side of the screen), locate the "Switches" section.
- Drag and drop a switch model onto the workspace. For instance, you might choose a model like the "2950" or "2960."

### **3. Access the Switch's Physical Layout**

- Click on the switch in the workspace to open its configuration window.
- Navigate to the "Physical" tab to see the switch's physical layout and modules.

### **4. Add Network Modules**

- In the "Physical" tab, you might see options to add or modify network modules.
- Click on the slot where you want to add a module. You can choose from available modules such as different types of Ethernet or Fiber modules.
- Drag the module from the list of available modules and drop it into the slot on the switch.

### **5. Configure the Modules**

- After adding the module, switch to the "Config" tab in the switch's configuration window.
- Here, you can configure the ports provided by the module. For example, you can set IP addresses, VLAN configurations, and other settings for the new interfaces.

### **6. Configure the Switch Ports**

- Switch to the "Config" tab to configure ports on the switch. Here, you can set parameters for each port.
- Select the specific port or range of ports you want to configure. You can set parameters such as VLAN assignments, port descriptions, and more.

- For example:
  - To configure a port to be in a specific VLAN:
    - Select the port or range of ports.
    - Assign the VLAN ID under the VLAN settings.
  - To set a description for the port:
    - Enter a description in the "Description" field.

## 7. Using the CLI for Detailed Configuration

- Switch to the "CLI" tab for command-line interface access.
- Enter configuration commands to set up the switch. Here's an example of how to configure VLANs and interface settings via CLI:

```
bash Copy code

Switch> enable
Switch# configure terminal

! Configure VLAN
Switch(config)# vlan 10
Switch(config-vlan)# name Sales
Switch(config-vlan)# exit

! Configure VLAN interface
Switch(config)# interface vlan 10
Switch(config-if)# ip address 192.168.10.1 255.255.255.0
Switch(config-if)# no shutdown
Switch(config-if)# exit

! Assign ports to VLAN
Switch(config)# interface range fa0/1 - 24
Switch(config-if-range)# switchport mode access
Switch(config-if-range)# switchport access vlan 10
Switch(config-if-range)# exit

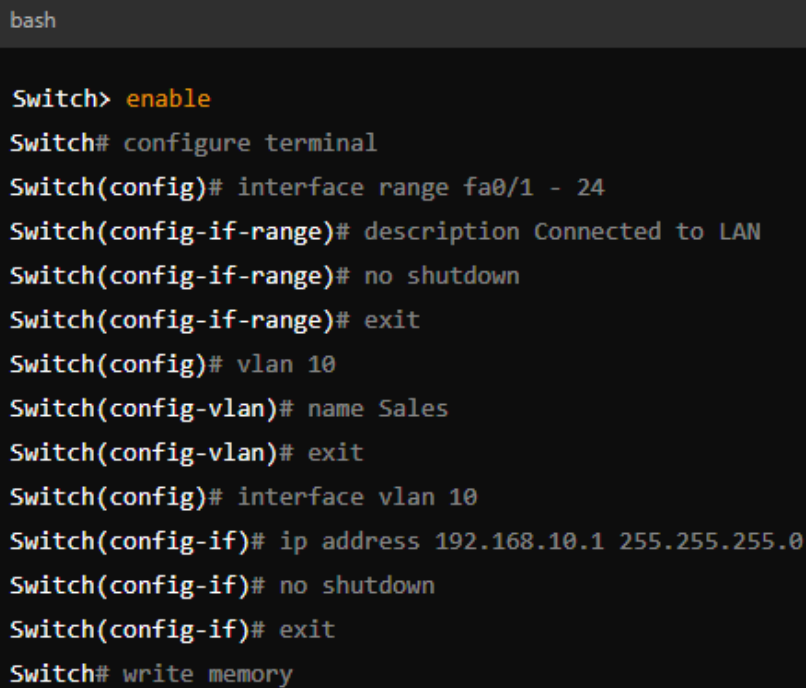
! Save the configuration
Switch# write memory
```

## 8. Save Your Configuration

- Once you've configured the modules and ports, be sure to save your configuration.

Use commands in the CLI (Command Line Interface) if you're using a model that supports CLI commands.

For example:

A terminal window with a dark background and light text. The title bar shows 'bash' on the left and a 'Copy code' button on the right. The terminal content shows a sequence of commands and prompts for configuring a switch. The prompts are 'Switch>', 'Switch#', 'Switch(config)#', 'Switch(config-if-range)#', 'Switch(config-vlan)#', 'Switch(config-if)#', and 'Switch#'. The commands include 'enable', 'configure terminal', 'interface range fa0/1 - 24', 'description Connected to LAN', 'no shutdown', 'exit', 'vlan 10', 'name Sales', 'exit', 'interface vlan 10', 'ip address 192.168.10.1 255.255.255.0', 'no shutdown', 'exit', and 'write memory'.

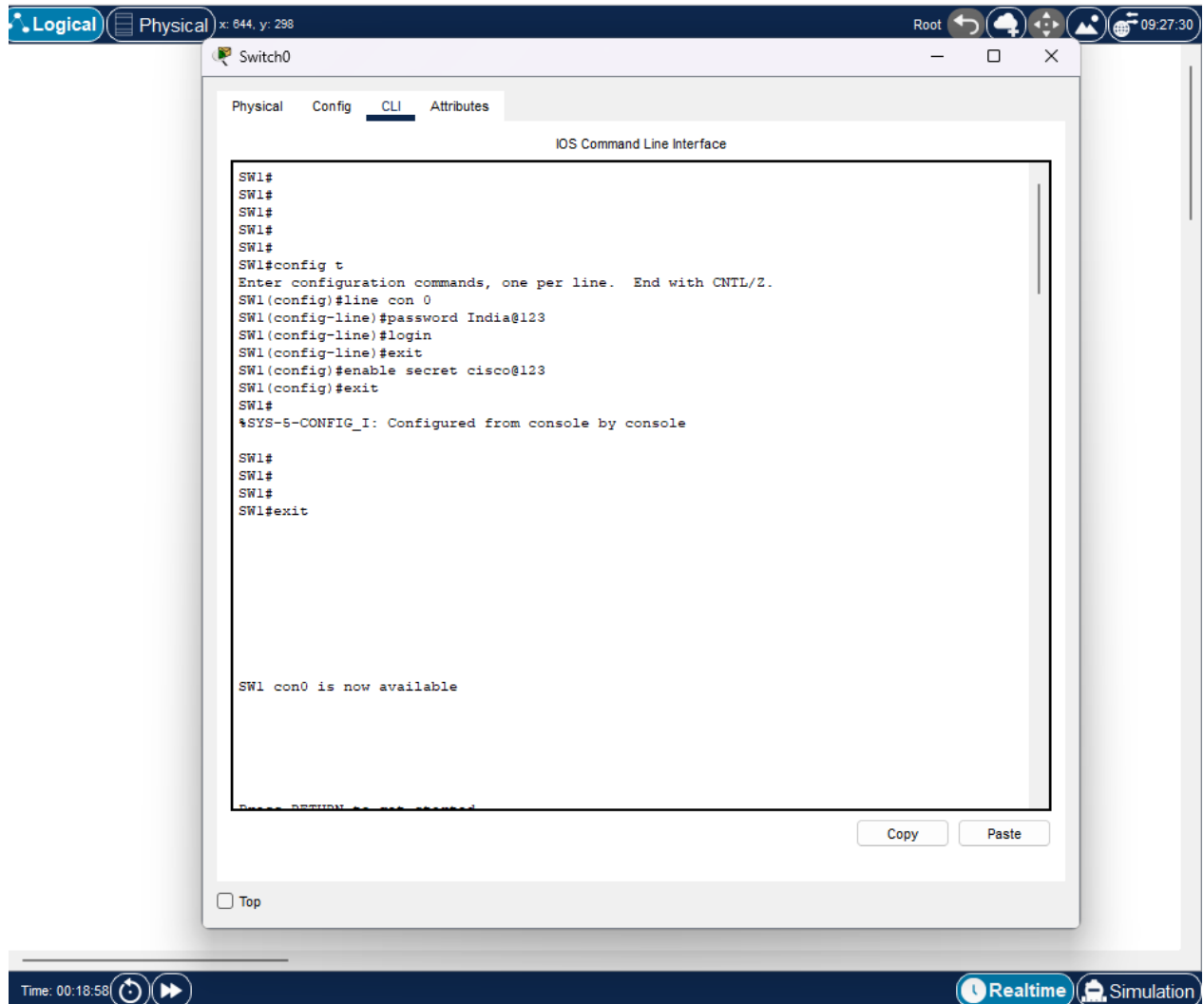
```
bash                                                                    Copy code

Switch> enable
Switch# configure terminal
Switch(config)# interface range fa0/1 - 24
Switch(config-if-range)# description Connected to LAN
Switch(config-if-range)# no shutdown
Switch(config-if-range)# exit
Switch(config)# vlan 10
Switch(config-vlan)# name Sales
Switch(config-vlan)# exit
Switch(config)# interface vlan 10
Switch(config-if)# ip address 192.168.10.1 255.255.255.0
Switch(config-if)# no shutdown
Switch(config-if)# exit
Switch# write memory
```

## 9. Test Your Configuration

- Use the simulation mode to test the network configuration.
- Add devices (PCs, routers, etc.) and connect them to the switch to ensure that everything is working as expected.

## RESULT:



Thus, the experiment of customizing switch was studied.