**📘 Basic Router and Switch Setup Guide**

**🔧 Objective:**

This document provides a step-by-step guide for setting up basic configurations on Cisco routers and switches. It covers essential configurations such as hostname, passwords, IP addressing, interface enabling, and basic connectivity verification.

**🧱 Equipment Required:**

* Cisco Router (e.g., 2911 or 1841)
* Cisco Switch (e.g., 2960)
* Console Cable & Terminal Software (e.g., PuTTY, Tera Term, or Cisco Packet Tracer)
* Ethernet Cables
* PC/Laptop for CLI access or simulation tool

**1. ⚙️ Basic Router Configuration**

**Step 1: Access Router CLI**

Connect via console cable or simulation software.

Router>

Router> enable

Router# configure terminal

**Step 2: Set Hostname**

Router(config)# hostname R1

R1(config)#

**Step 3: Secure Access with Passwords**

R1(config)# enable secret cisco123

R1(config)# line console 0

R1(config-line)# password class123

R1(config-line)# login

R1(config-line)# exit

R1(config)# line vty 0 4

R1(config-line)# password telnet123

R1(config-line)# login

R1(config-line)# exit

**Step 4: Configure IP Address on Interfaces**

R1(config)# interface gigabitEthernet 0/0

R1(config-if)# ip address 192.168.1.1 255.255.255.0

R1(config-if)# no shutdown

R1(config-if)# exit

**Step 5: Save Configuration**

R1# copy running-config startup-config

**2. ⚙️ Basic Switch Configuration**

**Step 1: Access Switch CLI**

Switch>

Switch> enable

Switch# configure terminal

**Step 2: Set Hostname**

Switch(config)# hostname SW1

SW1(config)#

**Step 3: Secure Access with Passwords**

SW1(config)# enable secret cisco123

SW1(config)# line console 0

SW1(config-line)# password class123

SW1(config-line)# login

SW1(config-line)# exit

SW1(config)# line vty 0 4

SW1(config-line)# password telnet123

SW1(config-line)# login

SW1(config-line)# exit

**Step 4: Assign IP to VLAN 1 for Remote Management**

SW1(config)# interface vlan 1

SW1(config-if)# ip address 192.168.1.2 255.255.255.0

SW1(config-if)# no shutdown

SW1(config-if)# exit

SW1(config)# ip default-gateway 192.168.1.1

**Step 5: Save Configuration**

SW1# copy running-config startup-config

**3. 🔄 Connectivity Testing**

**From PC (Command Prompt or CLI):**

ping 192.168.1.1 # Router

ping 192.168.1.2 # Switch

**From Router or Switch CLI:**

R1# ping 192.168.1.2

**📌 Tips:**

* Always use **no shutdown** to activate interfaces.
* Secure devices with passwords and disable unused ports.
* Use descriptive **interface descriptions** for documentation.
* Save frequently to avoid configuration loss.

**📂 Appendix**

**Common Default Interface Names:**

| **Device** | **Interface** |
| --- | --- |
| Router 2811 | FastEthernet0/0 or GigabitEthernet0/0 |
| Switch 2960 | FastEthernet0/1 to 0/24 |