**Moulik Tammana**

**Q7. Configure a management VLAN and assign an IP address for remote access. Test SSH or Telnet access to the switch.**

**Configuring a management VLAN and assigning an IP address to a switch is essential for secure and efficient network administration. A management VLAN isolates network management traffic from regular data traffic, reducing security risks and ensuring dedicated access for administrators. By assigning an IP address to the switch within the management VLAN, remote access through protocols like SSH or Telnet becomes possible, allowing network engineers to configure, monitor, and troubleshoot devices without physical access. To achieve this, the administrator must create a VLAN (e.g., VLAN 1 which is a default VLAN), assign it an IP address (e.g., 192.168.1.1/24), and configure a default gateway. Enabling SSH requires generating RSA keys and setting up login credentials, whereas Telnet requires enabling VTY lines. After configuration, testing connectivity using ping and remote login tools like ssh or telnet ensures successful access and management of the switch.**



