

Sample project for CCNA Topics:

First:

1. Build the topology as shown in the figure.
2. Configure the basic settings as follows:
 - A- Set hostname for all switches and routers as:
 - Switches (S1, S2, S3...)
 - Routers (R1, R2...)
 - B- Use domain name: ITI
 - C- Set all passwords to 1234
 - D- Create user: Mostafa
 - E- Set subnet mask for all networks to /24

Second:

1. Configure port security on SW5`.
2. Enable Spanning Tree Protocol PVST as follows:
 - On SW2: make it the root for VLAN 20
 - On SW3: make it the root for VLAN 40
3. Enable VTP protocol with:
 - Domain: ITI
 - Password: 1234
 - Configure on SW2 and SW3

Third:

- DHCP Configuration:
 - Configure the following networks to obtain TCP/IP automatically via DHCP from Router R1:
 - Network: 10.10.0.0/24, 10.10.4.0/24, 10.10.10.0/24

Forth:

- Access Control List (ACL):
 1. Create an extended ACL to prevent VLAN 20 on SW3 from accessing web service on Server 1 but permit access to all other users.
 2. Create an extended ACL to prevent Host1 from accessing web services and from pinging.

Fifth:

1. Configure PAT (Port Address Translation) on Router R4.
2. Enable remote management (SSH) on SW5 and prevent telnet.