Sample project for the Topics CCNA:

The 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: Alaa
- E- Set subnet mask for all networks to /24

The second:

1. 1. Configure port security on all switches except SW5
2. 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. 3. Enable VTP protocol with:
   - Domain: ITI
   - Password: 1234
   - Configure on SW2 and SW3

The third:

- DHCP Configuration:
- Configure the following networks to obtain TCP/IP automatically via DHCP from Router R1:
  - Network: 10.0.0.0/24, 10.0.4.0/24, 10.0.6.0/24

The forth:

- Access Control List (ACL):

4. 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.
5. 2. Create an extended ACL to prevent Host1 from accessing web services and from pinging.

The fifth:

6. 1. Configure PAT (Port Address Translation) on Router R4.
7. 2. Enable remote management on SW5.

Thanks. With my best wishes,
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