CET4773 Lab4: VLANs and InterVLAN Routing I

OBJECTIVES

1. Configure VLANS on 3550 and 3560 switches
2. Troubleshoot VLANS
3. Configure and troubleshooting VTP

BACKGROUND

A **virtual LAN (VLAN)** is any broadcast domain that is partitioned and isolated in a computer network at the data link layer (OSI layer 2). **LAN** is an abbreviation of local area network. To subdivide a network into virtual LANs, one configures a network switch or router.

VLAN Trunking Protocol (VTP) is a Cisco proprietary protocol that propagates the definition of Virtual Local Area Networks (VLAN) on the whole local area network. To do this, VTP carries VLAN information to all the switches in a VTP domain

## RUNNING ROUTERSIM'S NETWORK VISUALIZER 8

- To open the material you will work today, you need to select the option "Labs" on the main menu. Then select the option "Documentation".
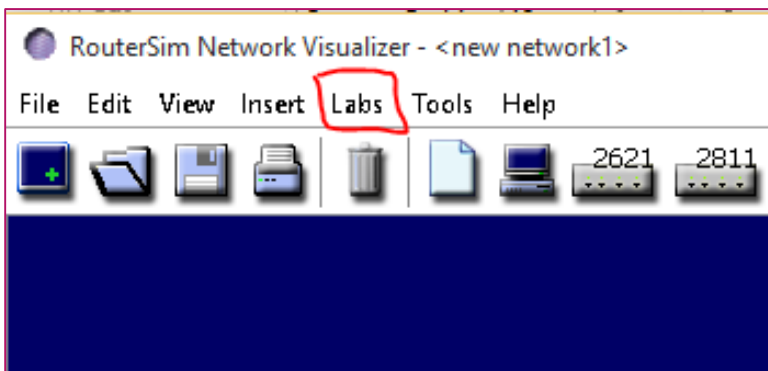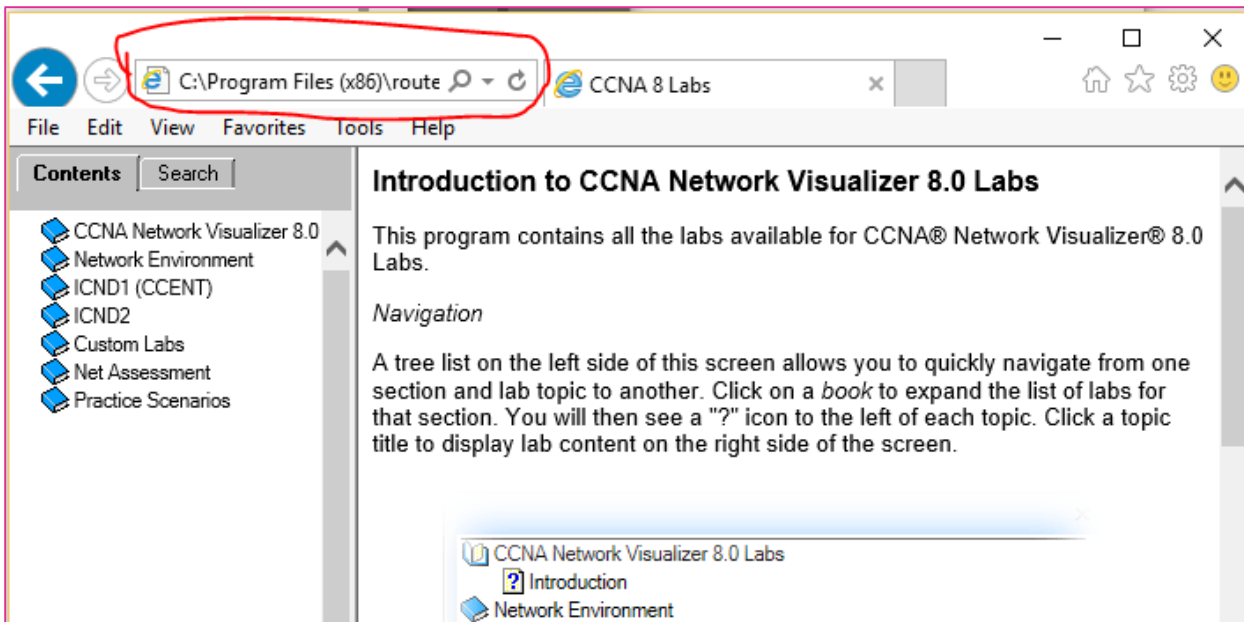
NOTE: The documentation does not run well in all the browser. Actually, the only one that is guaranteed to work is MS Internet explorer. If any other browser has been opened, copy the URL (the one circled in the above image), open **Internet Explorer**, and paste the URL.

Warning! If you get to see a message like the following, please DO NOT click on the Allow blocked content button. If you click that button, it will make the left side menu disappear. **Just ignore it**.
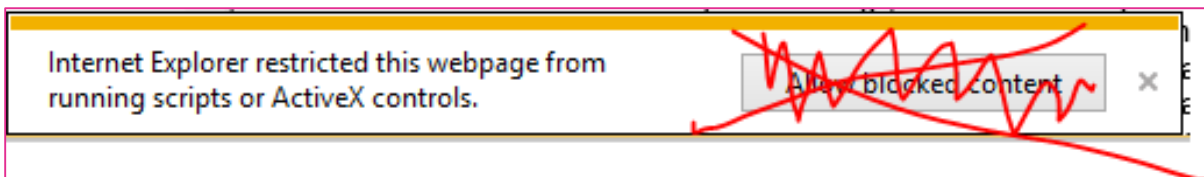
WHAT TO SUBMIT AND INSTRUCTIONS

1. For this lab you will submit each .rsm file you create. In fact five .rsm files.

   - *Standard Layout<your name>.rsm   (From the first four tutorials)*

   - *Configuring VLANs<your name>.rsm*

   - *Troubleshooting VLANs<your name>.rsm*

   - *Configuring VTP<your name>.rsm*

   - *Troubleshooting VTP<your name>.rsm*

2. NetworkVisLab4_yourname.docx to show the screenshot of the last step for the first four tutorials and the screenshot of your grade for the last four tutorials.

3. Complete the tutorials marked in the following figure

CCNA Network Visualizer 8.0 Labs
Network Environment
ICND1 (CCENT)
  Cisco Internetworking Operating System (IOS)
  Managing and Troubleshooting a Cisco Internetwork
  IP Routing
  Open Shortest Part First (OSPF)
  Layer 2 Switching Technologies
  VLANs and InterVLAN Routing
    Lab 6.1: Configuring VLANs on a 3550 Switch
    Lab 6.2: Configuring Trunk Ports/VTP Domain on a 3550 Switch
    Lab 6.3: Configuring VLANs on a 3560 Switch
    Lab 6.4: Configuring Trunk Ports/VTP Domain on a 3560 Switch
    Practice Scenario: Configuring VLANs
    Practice Scenario: Troubleshooting VLANs
    Practice Scenario: Configuring VTP
    Practice Scenario: Troubleshooting VTP
    Practice Scenario: Troubleshooting VLAN Connectivity #1
    Practice Scenario: Troubleshooting VLAN Connectivity #2
    Practice Scenario: Troubleshooting VLAN Connectivity #3
    Practice Scenario: Troubleshooting VLAN Connectivity #4
    Practice Scenario: Troubleshooting VLAN Connectivity #5
    Lab 6.5: Configuring a Router on a Stick Routing
    Practice Scenario: Configuring a Router on a Stick Routing
    Practice Scenario: Troubleshooting a Router on a Stick Routing
    Lab 6.6: InterVlan Multi-Switches
    Lab 6.7: Understanding IVR with a Layer 3 Switch
    Lab 6.8: Configuring IVR with a Layer 3 Switch
    Lab 6.9: Verifying IVR with a Layer 3 Switch
  Security