BIRZEIT UNIVERSITY

Computer Network Laboratory ENCS4130

TODO 5: VLANs & ACL

README: The **X** in the given IP addresses ranges depends on <u>your university ID</u>
(Example: 1161234) X=34 according to this ID.

Question: Use Cisco Packet Tracer to build the topology shown in Figure 1.

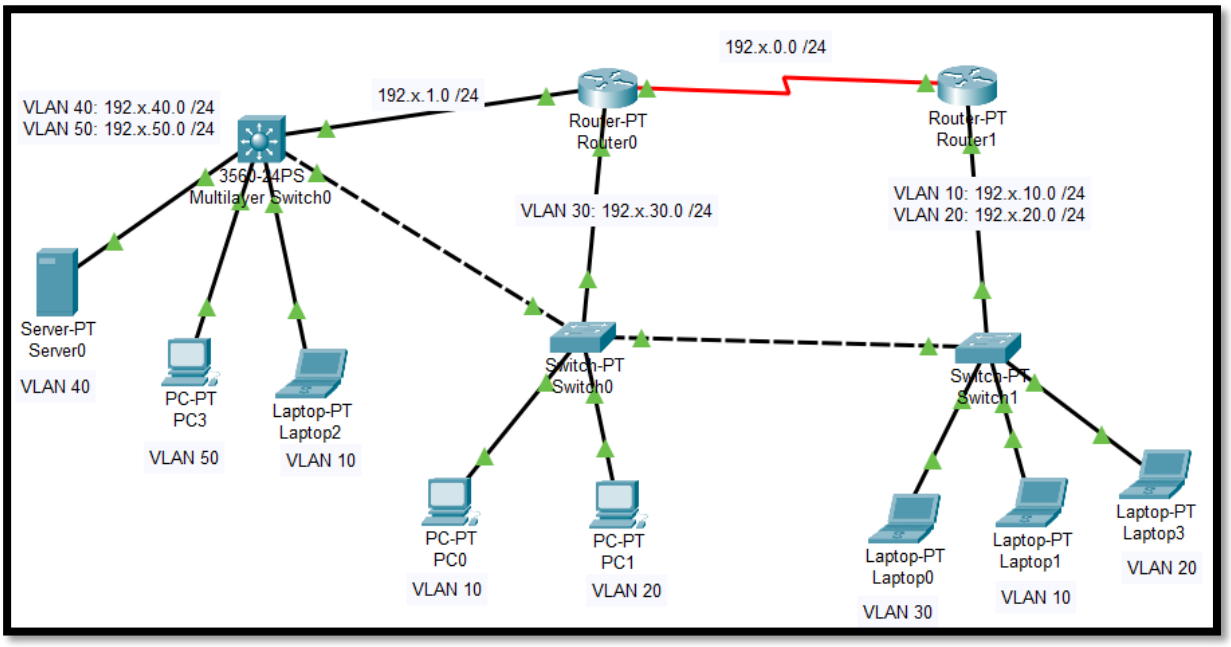

Figure 1: Question Topology.

Part 1:

1. The VLANs concept that you need to use on routers is **Router on Stick** (RoS) as we learned in the lab. While you need to use **Switch Virtual interface** on the Multilayer switch.
2. The PCs and Laptops should be able to ping each other.
3. You must use **<u>rip</u>** as a dynamic routing protocol.

Part 2:

1. Allow only <u>VLAN 10 and VLAN 50 devices</u> to do HTTP requests to the server. Rest VLANs (20, 30 and 40) devices can do ping via ICMP and other protocols rather than HTTP. So, PC1 can ping the server but cannon do a web request.

Hints:

1. Review the lab manual to review how to add a new port to the switch.
2. Make sure to initialize all VLANs on all switches and on the MLS.
3. The MLS will have both switch and router configurations.

Evaluation Criteria [18 points]:

- Submission format **[1 point]**
- Build the topology **[2 point]**
- VLANs Router on Stick (RoS) **[2 point]**
- VLANs Switch Virtual interface **[2 point]**
- rip protocol **[3 point]**
- The PCs and Laptops able to ping each other **[4 point]**
- Access list **[4 point]**

Deadline: 14-11-2024 11:59 PM.

What to submit through ITC:

- The packet tracer file with the following name convention: FirstName_UID_SectionNum**.pkt**
- Be aware that any Solution without including the UID as shown at the beginning of the document will not be accepted.

Good Luck