**Net 1061 Switching, Routing, and Wireless Essentials**

**Name: Andrew Koenig**

**Lab: #**

**Follow the instructions down below for the lab itself. For this lab, all answers need to be in blue font. For the questions right below, answer in complete sentences. If this is a self-grading packet tracer. Ensure you paste the screen shot of your score page at the bottom of the document. You will upload both this document and the pkt file regardless if it is self-grading or not. Let the instructor know if you have any questions.**

***Lab Analysis Report***

1. Using complete sentences summarize work you completed during the lab.

I configured inter-vlan routing.

2. Using complete sentences describe what you learned from the lab. Hint; look at the lab objectives listed at the top of the lab section.

I further learned how to configure inter-vlan routing and trunking.

***Problems Encountered***

1. Using complete sentences describe any problem(s) experienced during lab.

No problems

2. Using complete sentences describe how you solved your problem(s).

No problems

3. Using complete sentences explain if you needed any assistance with the lab; then list what you learned from that assistance. No problems

Packet Tracer - Inter-VLAN Routing Challenge

# Addressing Table

| Device | Interface | IP Address | Subnet Mask | Default Gateway |
| --- | --- | --- | --- | --- |
| R1 | G0/0 | 172.17.25.2 | 255.255.255.252 | N/A |
| R1 | G0/1.10 | 172.17.10.1 | 255.255.255.0 | N/A |
| R1 | G0/1.20 | 172.17.20.1 | 255.255.255.0 | N/A |
| R1 | G0/1.30 | 172.17.30.1 | 255.255.255.0 | N/A |
| R1 | G0/1.88 | 172.17.88.1 | 255.255.255.0 | N/A |
| R1 | G0/1.99 | 172.17.99.1 | 255.255.255.0 | N/A |
| S1 | VLAN 99 | 172.17.99.10 | 255.255.255.0 | 172.17.99.1 |
| PC1 | NIC | 172.17.10.21 | 255.255.255.0 | 172.17.10.1 |
| PC2 | NIC | 172.17.20.22 | 255.255.255.0 | 172.17.20.1 |
| PC3 | NIC | 172.17.30.23 | 255.255.255.0 | 172.17.30.1 |
| Server | NIC | 172.17.50.254 | 255.255.255.0 | 172.17.50.1 |

# VLAN and Port Assignments Table

| VLAN | Name | Interface |
| --- | --- | --- |
| 10 | Faculty/Staff | F0/11-17 |
| 20 | Students | F0/18-24 |
| 30 | Guest(Default) | F0/6-10 |
| 88 | Native | G0/1 |
| 99 | Management | VLAN 99 |

# Scenario

In this activity, you will demonstrate and reinforce your ability to implement inter-VLAN routing, including configuring IP addresses, VLANs, trunking, and subinterfaces.

# Instructions

Configure the devices to meet the following requirements.

* Assign IP addressing to R1 and S1 based on the Addressing Table.
* Configure the default gateway on S1.
* Create, name, and assign VLANs on S1 based on the VLAN and Port Assignments Table. Ports should be in access mode. Your VLAN names should match the names in the table exactly.
* Configure G0/1 of S1 as a static trunk and assign the native VLAN.
* **All** ports that are not assigned to a VLAN should be disabled.
* Configure inter-VLAN routing on R1 based on the Addressing Table.
* Verify connectivity. R1, S1, and all PCs should be able to ping each other and the server.

End of document Graphical user interface, application

Description automatically generated