# Group Assignment 3 - Group Lab Activity 3

TNE10006/TNE60006 S2 2021

**Assignment Weight:**   
5%

**Assignment Points:**   
50

**Submission Due Date:**

Before Week 12 Lab Session

**Reference Material:**

* Sample Final Practical Assessment (available in Canvas Lab Sessions page, Week 11 tab)

**Instructions:**

1. Form a group of 3-4 people amongst the students present in the lab session
2. Your group discussion time will be in the last 20 minutes of the lab session in Collaborate Ultra, Breakout groups.
3. Discuss and answer the questions in Group Assignment 3 in your breakout group.
4. Organise for your group to meet again to complete all the questions.
5. Each group will submit one completed Group Assignment 3
6. Submit Group Assignment 3, in the Canvas shell, under the Group Lab Activity 3
7. Late penalties will apply for submission after the due date.

**Group Assignment 3 Questions:**

* Section 1: Sample Final Practical Assessment Configuration (30 marks)
* Section 2: Sample Final Practical Assessment Verification and Troubleshooting (20 marks)

**Group Assignment 3:**

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| **Group Members** | |
| **Name** | **Student Id:** |
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**Section 1: Sample Final Practical Assessment Configuration   
(30 marks)**

Refer to the Sample Final Practical Assessment.

Q1. List the configuration commands required to complete **Task 1: Configure Device Names and MOTD**. For each command, specify the device(s) and operation mode.(1 mark)

Q2. List the configuration commands required to complete **Task 2: Configure VLANs and VLAN membership**. For each command, specify the device(s) and operation mode. (4 marks)

Q3. List the configuration commands required to complete **Task 3: Configure Router-on-a-Stick**. For each command, specify the device(s) and operation mode. (6 marks)

Q4. List the configuration commands required to complete **Task 4: Configure Switch Management**. For each command, specify the device(s) and operation mode. (6 marks)

Q5. List the configuration commands required to complete **Task 5: Fine-tune STP**. For each command, specify the device(s) and operation mode. (4 marks)

Q6. List the configuration commands required to complete **Task 6: Configure Port-Security.** For each command, specify the device(s) and operation mode. (4 marks)

Q7. List the configuration commands required to complete **Task 7: Configure EtherChannel**. For each command, specify the device(s) and operation mode. (4 marks)

Q8. List the configuration commands required to complete **Task 8: Additional Settings.** For each command, specify the device(s) and operation mode. (1 mark)

**Section 2: Sample Final Practical Assessment Validation and Troubleshooting   
(20 marks)**

Refer to the Sample Final Practical Assessment.

Q1. Answer the following questions regarding validating and troubleshooting **VLANs and VLAN membership**

* + 1. What command(s) can be used on **Tokyo** to validate VLANs and VLAN membership configuration? For each command, describe the expected output. (2 marks)
    2. What command(s) can be use on **Lisbon** to validate VLANs and VLAN membership configuration? For each command, describe the expected output. (2 marks)
    3. What command(s) can be use on **Lisbon** to validate that all unused ports have been disabled? For each command, describe the expected output. (1 marks)

Q2. Answer the following question regarding validating and troubleshooting **Router-on-a-Stick**

* + 1. What command(s) can be used on **Nairobi** to validate Router-on-a-Stick configuration? List at least 2. For each command, describe the expected output. (4 marks)
    2. What command(s) can be used on **Tokyo** to validate Router-on-a-Stick configuration? For each command, describe the expected output. (1 mark)
    3. Troubleshooting Scenario: The routing table on **Nairobi** is not displaying all the correct connected (C) routes and their exit interfaces.

What are the possible configuration issues? List at least 3 possible issues. (3 marks)

Q3. Answer the following questions regarding validating and troubleshooting **Switch Management**

* + 1. What command(s) can be used on **Tokyo** to validate that the Management IP has been correctly configured? For each command, describe the expected output. (1 mark)
    2. What command(s) can be used on **Tokyo** to test SSH access to **Lisbon**? (1 mark)
    3. Troubleshooting Scenario: **Tokyo** and **Lisbon** can ping each other. **Tokyo** can ping all IP addresses configured on **Nairobi**. However, **Lisbon** can only ping the IP address configured on **Nairobi’s** Management sub-interface; it cannot ping any other router IP.

What is the most likely configuration issue? (1 mark)

Q4. Answer the following questions regarding validating and troubleshooting **STP, Port-Security and EtherChannel**

* + 1. Using the ***show spanning-tree*** command, how do we validate that **Tokyo** has been correctly configured as the root bridge for the Royalmint VLAN? (1 mark)
    2. What command can be used on **Lisbon** to validate the current Port-Security status of interface Gi1/0/3? (1 mark)
    3. If the Port-Channel between **Tokyo** and **Lisbon** has been correctly configured and is fully operational; what should be the status flag(s) next to the Port-Channel interface on the ***show etherchannel summary*** output? (1 mark)
    4. If the Port-Channel between **Tokyo** and **Lisbon** has been correctly configured and is fully operational; what should be the status flag(s) next to the member interfaces on the ***show etherchannel summary*** output? (1 mark)