

Name: _____

Name: _____

TCSS 462/562: (Software Engineering for) Cloud Computing School of Engineering and Technology
Fall 2025 University of Washington – Tacoma

Class Activity 2 – Introduction to Elastic Compute Cloud (EC2) Service

Tuesday October 23th, 2025

For Class Activity 2, launch a c5d.large ec2 spot instance as instructed on pages 1-15 in Tutorial 3.

https://faculty.washington.edu/wlloyd/courses/tcss562/tutorials/TCSS462_562_f2025_tutorial_3.pdf

Specifically you'll want to complete the steps:

1. Launch an EBS-backed Amazon EC2 Ubuntu 24.04 instance (page 6)
and
2. Log into your Amazon EC2 Spot Instance (page 11)

Stop before step 3, which is “3. Preparing ephemeral disk volumes”

Run the commands below to inspect your VM, and provide the output.

1. Ping the public IP of your ec2 instance using the “**ping -c 10**” command.

This requires configuring a security group inbound rule to allow “All ICMP – IPv4” traffic (see page 12). The output of ping provides round-trip-time (rtt) statistics for the minimum (min), average (avg), maximum (max), and mean deviation (mdev). See example stats for pinging google.com:

```
--- www.google.com ping statistics ---  
10 packets transmitted, 10 received, 0% packet loss, time 9012ms  
rtt min/avg/max/mdev = 2.099/9.454/63.924/18.163 ms
```

For your VM, identify each of the following:

- a. minimum ping round-trip-time: _____
- b. average ping time: _____
- c. maximum ping round-trip time: _____
- d. mean deviation of ping: _____

2. Now, perform an update and upgrade of the Ubuntu packages on the VM by running the following commands:

```
sudo apt update  
sudo apt upgrade
```

After running these commands, report the version number of the **running** Linux kernel using the “**uname -r**” command.

a. What is the version of the running Linux kernel: _____

Check the VERSION of Linux that is running.
Use the “**cat /etc/os-release**” command.

b. What does the VERSION field report: _____

Now, check if a newer kernel has been installed by checking for “vmlinuz” files under the boot directory:

```
ls /boot | grep vmlinuz
```

c. What is the newest kernel listed in the /boot directory.
This is the kernel with the highest version number: _____

d. Regardless whether the newest kernel is running, explain how you could run a newer kernel listed under /boot after updating:

3. Now, inspect the model number of the CPU used to host your VM. Use the “**lscpu**” command.

a. Report the output for “CPU(s)”: _____

b. Report the output for “Socket(s)”: _____

c. Report the output for “Core(s) per socket”: _____

d. Report the output for “Thread(s) per core:” _____

e. Report the output for Model name: _____

BE SURE TO TERMINATE YOUR VM ONCE FINISHED WITH THE ACTIVITY