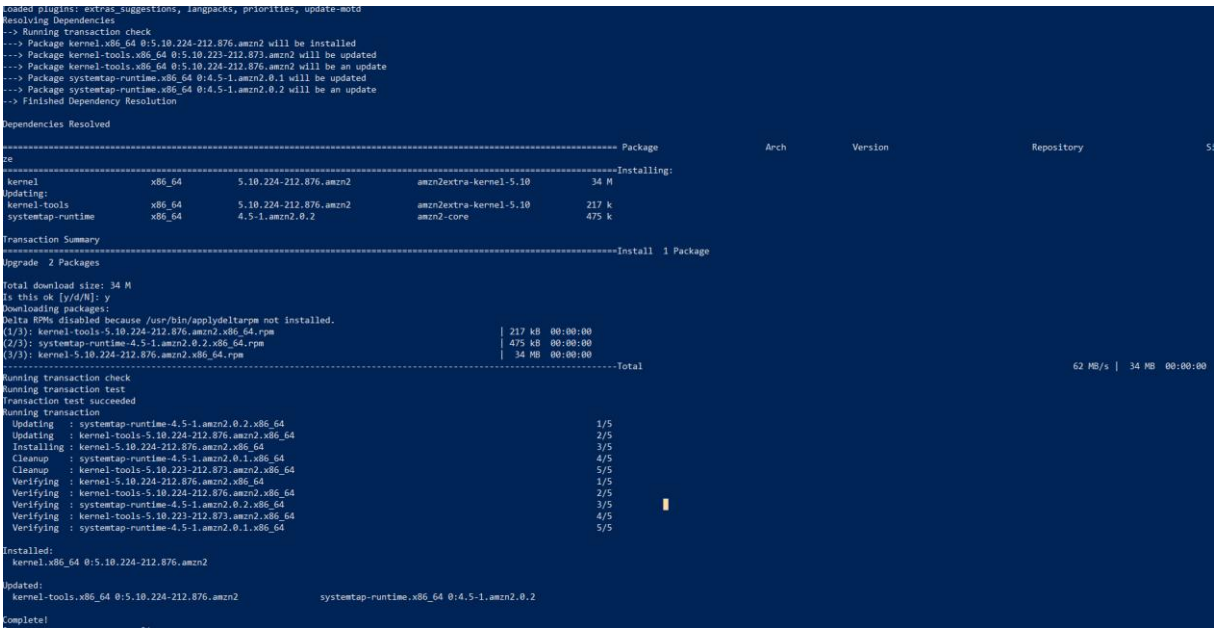
Cloud Computing Assignment 1 – Launching an AWS VM

This report documents the steps followed to launch an AWS VM. I firstly logged in on the AWS console and launched an instance via the console using the information provided in the assignment pdf. I selected Amazon Linux 2 AMI as my image, and t2.micro as the instance type. Then, I created a key pair using RSA and saved the private key file as a .pem file. If I lost the key when I instantiated my VM, I would no longer be able to access to the VM via SSH. The purpose of having private key is to build the connection securely; therefore, it would not be possible to connect to the VM without the key. In such case, I would create a new key pair and relaunch my VM.

After clicking on "Launch an instance", I had to wait for one minute to see my VM running in the interface, so I would say the waiting time between requesting the VM and having it up is approximately one minute. Since the region I was using was **us-east-1**, I know that the physical server on which my VM was running is located in North Virginia. Afterwards, using SSH and my key file, I managed to connect to my remote VM from my computer, using the following command:

```
ssh -i C:\Users\msi-nb\Desktop\CC\assignment1\as1.pem ec2-user@ec2-18-212-33-132.compute-1.amazonaws.com
```

Then, using the command **sudo yum update**, I updated the packages in my Linux distribution, which can be seen below.



After the updates were finished, I used the Linux commands to retrieve the information that was requested in the pdf. The commands and the answers to the questions asked in the pdf can be seen in the screenshot below.

```
[ec2-user@ip-172-31-28-134 ~]$ cat /proc/cpuinfo | grep 'model name' | uniq
model name      : Intel(R) Xeon(R) CPU E5-2686 v4 @ 2.30GHz
[ec2-user@ip-172-31-28-134 ~]$ cat /proc/cpuinfo | grep 'cache size' | uniq
cache size      : 46080 KB
[ec2-user@ip-172-31-28-134 ~]$ cat /proc/cpuinfo | grep 'cpu MHz' | uniq
cpu MHz         : 2299.998
[ec2-user@ip-172-31-28-134 ~]$ cat /proc/cpuinfo | grep 'vendor_id' | uniq
vendor_id       : GenuineIntel
[ec2-user@ip-172-31-28-134 ~]$ sudo dmidecode -s system-manufacturer
Xen
[ec2-user@ip-172-31-28-134 ~]$
```

- Model name of my CPUs: Intel® Xeon® CPU E5-2686 v4 @ 2.30 GHz
- Cache size: 46080 KB = 45 MB
- Clock frequency of my CPUs: 2299.998 MHz
- CPU vendor: GenuineIntel
- Name of the hypervisor vendor: Xen

I then executed the command mentioned in step 6 to create the log.dat file. Finally, using the following scp command, I downloaded the log.dat file on my computer:

```
scp -i ~C:\Users\msi-nb\Desktop\CC\assignment1\as1.pem ec2-user@ec2-18-217-0-133.us-east-2.compute.amazonaws.com:~/log.dat ~/Downloads/
```

The content of the log.dat file is given below.

Name: meteharun-akcay -- 18.212.33.132 -- ec2-18-212-33-132.compute-1.amazonaws.com -- 192.168.1.14 -- 1725612923 -- curl/8.3.0

During this assignment, I learned how to launch and manage an EC2 instance, secure connections using key pairs and some basic Linux commands to gather information, creating and downloading a file. Since I am not familiar with Cloud Computing, almost everything that I did for this assignment was completely new to me. Although the assignment in overall was quite easy, I had some trouble in the last step, in downloading the log.dat file. I searched for the

scp command for downloading a file from a VM to local machine, but the command I found did not work because the system could not find the address of my file. The reason was that Windows uses backslash (\) as the directory separator, while Linux uses the forward slash (/). I eventually figured out the issue and completed the assignment.