# WEEK 4 ASSIGNMENT 2

**Large-Scale Data Storage Systems – DATA-5400 | Spring 2020**

**Christina Morgenstern**

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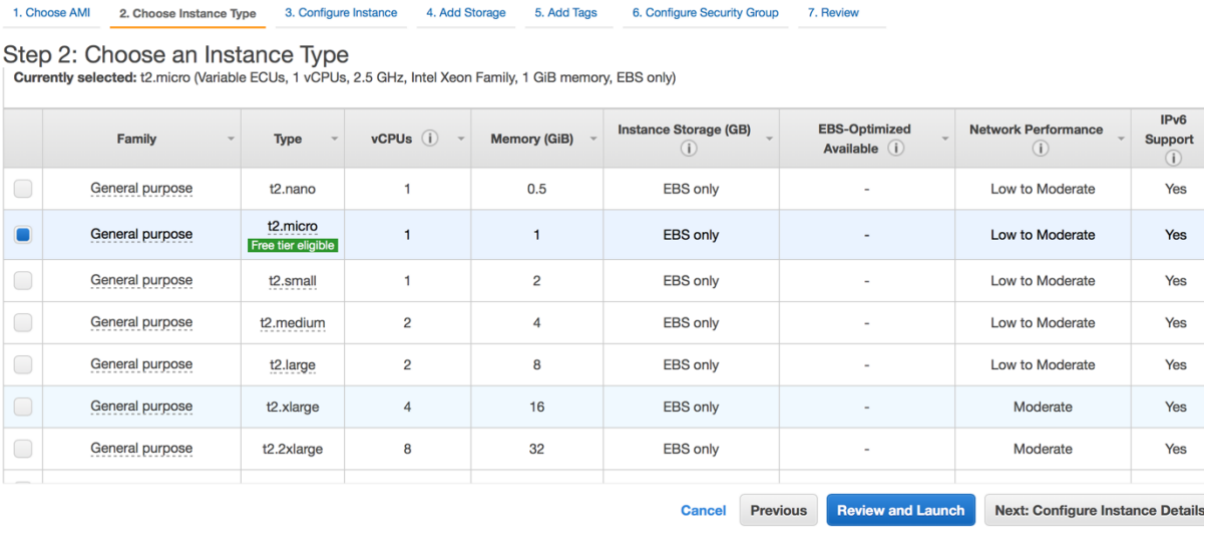
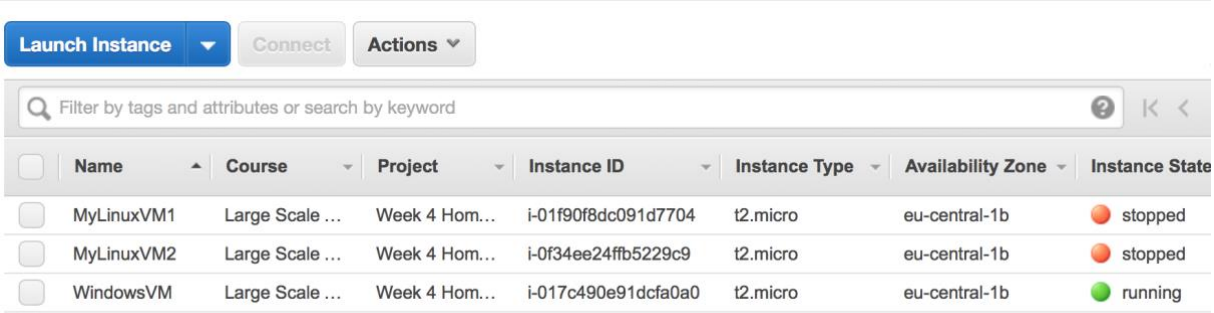
In this hands-on assignment, I am creating a Windows VM in the cloud using AWS EC2 service and connect to it using a remote desktop connection.
To launch a new instance, in the EC2 console window, go to Instances in the left-hand menu and press the blue button Launch Instance.
For the Windows VM, I selected the Free tier Microsoft Windows Server 2019 Base.

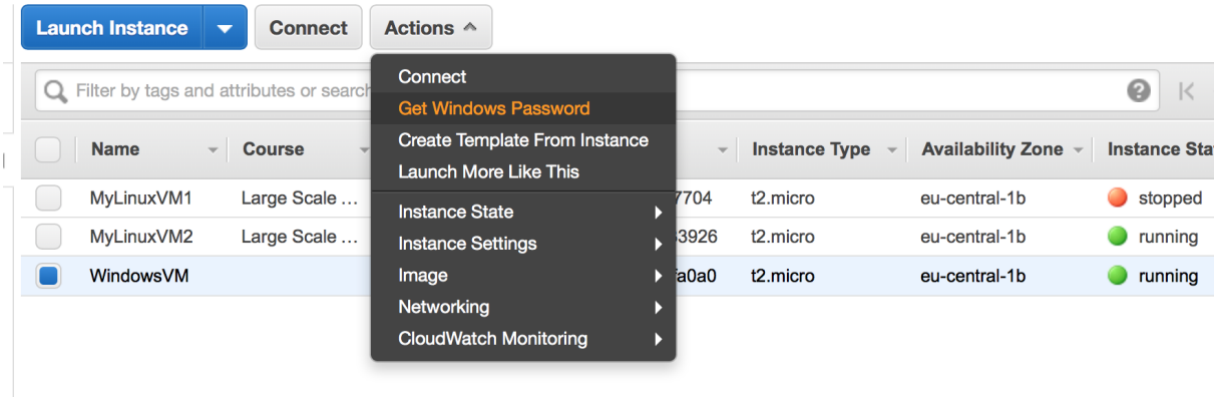

As for Instance Type, I selected the General purpose and free tier eligible t2.micro.



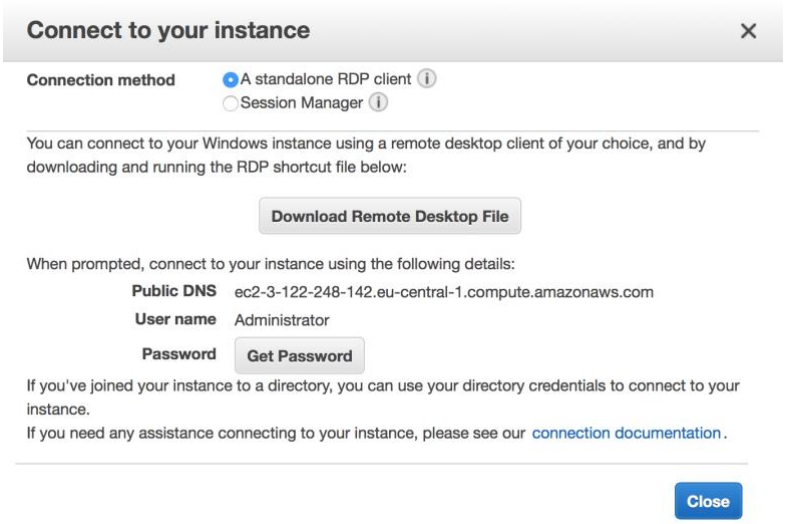

Launch the instance and use the same key pair as previously generated.
The Windows VM is successfully running in the Europe Frankfurt region.



Connecting to the Windows VM requires a Remote Desktop Client for Mac and a Windows password. The password is created as follows and with the help of the previously obtained key pair.

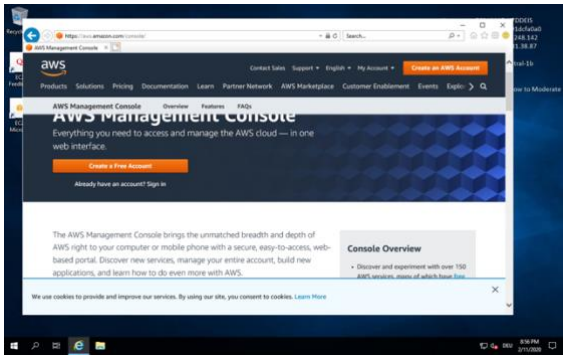



Selecting the Windows VM and pressing Connect opens a window that creates the security credentials for connecting to the VM. I also downloaded the Remote Desktop File.



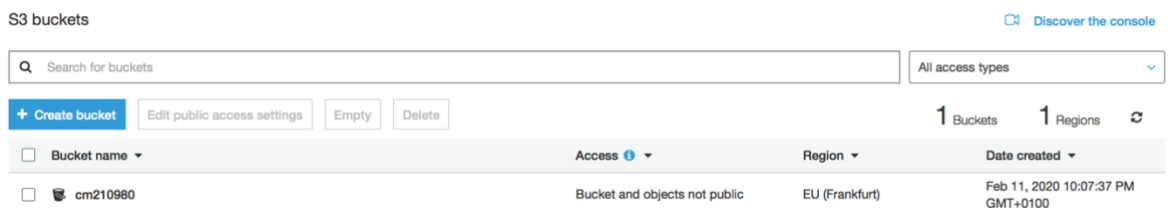

From the App-Store, I downloaded the following Remote Desktop Client:


I opened the Remote Desktop File that was downloaded from the EC2 console. This way of connecting to the VM failed. But when starting the Microsoft Remote Desktop app and creating a new desktop through entering the previously generated Administrator and Password, I could connect to the Windows VM. And internet connection was also verified through browsing the web using the Internet Explorer (see for step-by-step guidance https://thebackroomtech.com/2018/11/08/how-to-connect-to-a-windows-ec2-instance-from-mac/)

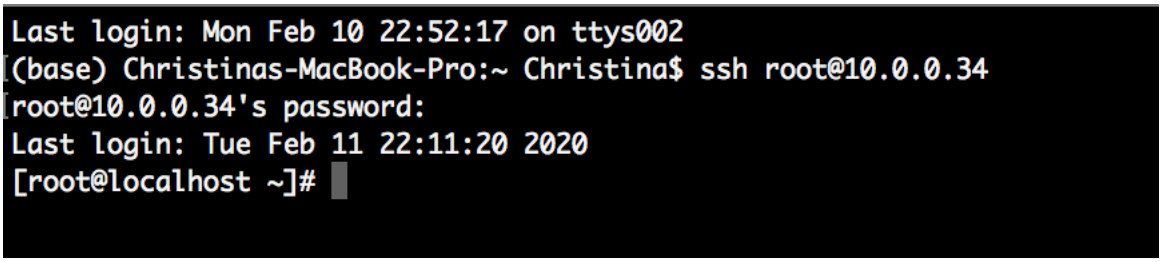



Transferring files to the Windows VM:
Under the Identity and Access Management, I enabled the access and secret keys to make programmatic calls to AWS from AWS CLI.

Creating a S3 bucket was done using the S3 desktop service.

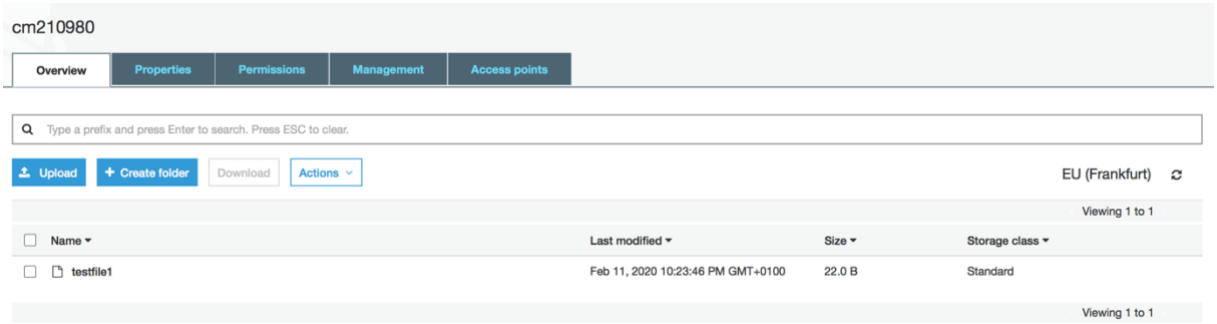



Connecting to the CentOS VM was done as previously using SSH.

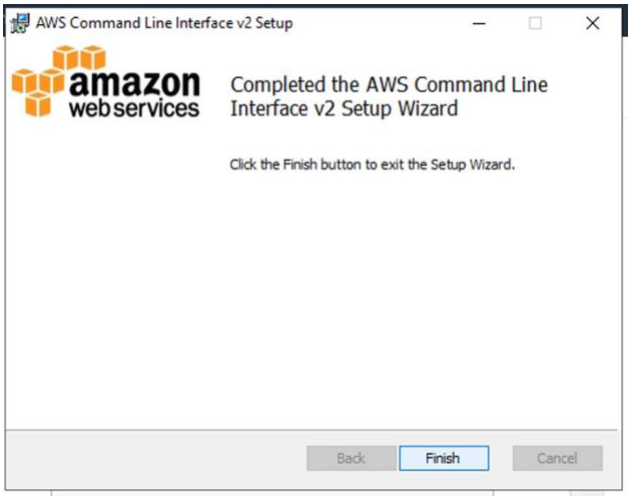



Transfer of a testfile 1 from the CentOS VM to the S3 bucket cm210980 using CLI.

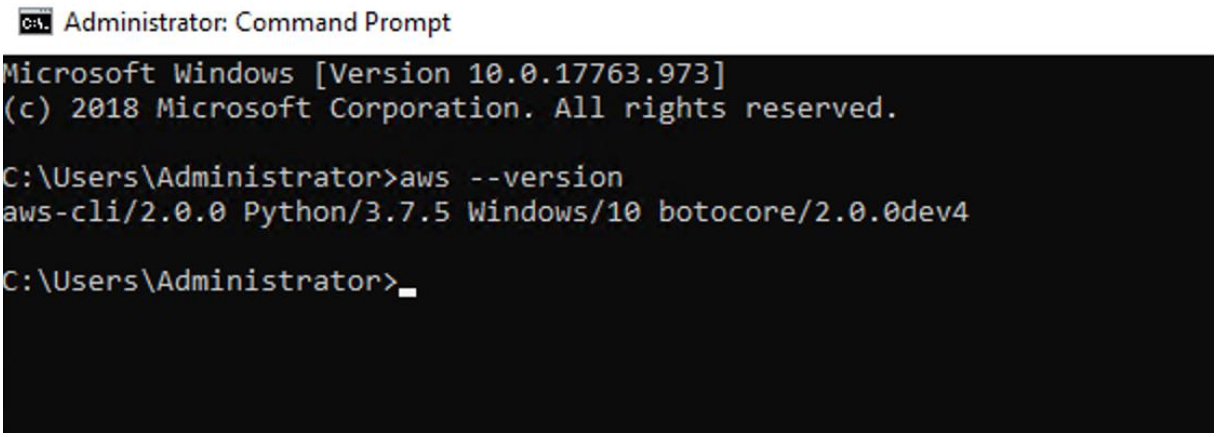

Verification that the testfile shows up in the s3 bucket in the console window.



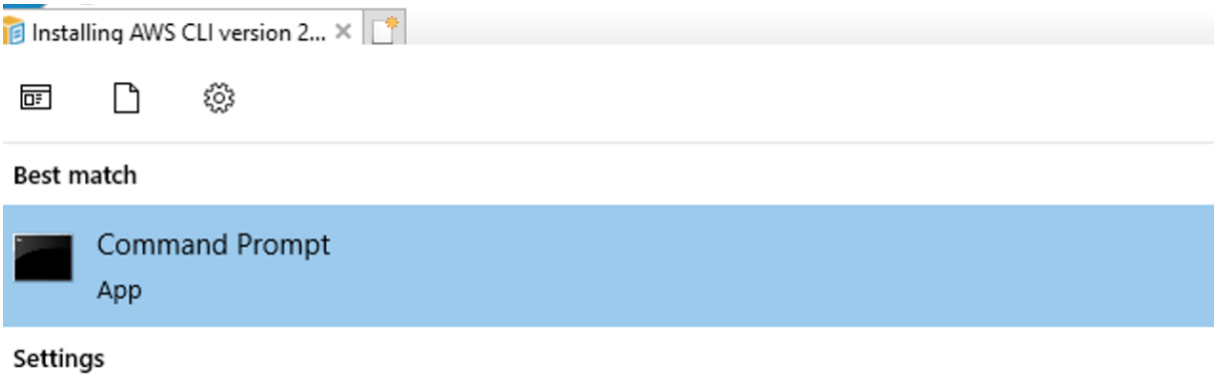
For downloading the file in the s3 bucket using the AWS CLI, I needed to install the AWS CLI version 2 for windows.



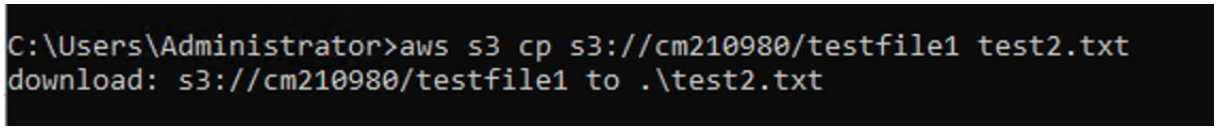

Successful installation of the AWS CLI and verification of version.



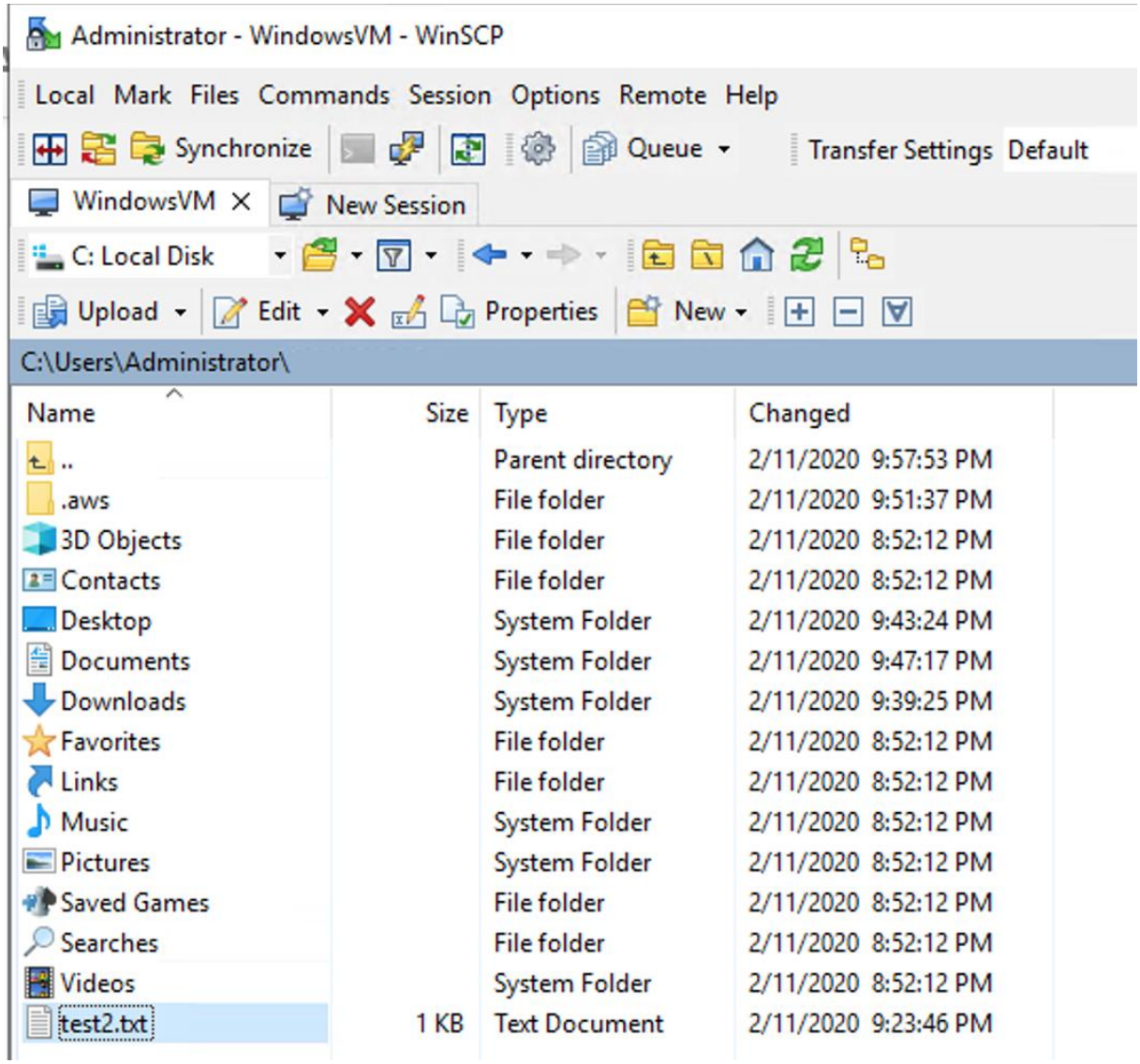

Using the Windows Command Prompt for connecting to the s3 bucket and downloading the file.




After configuring the instance by entering the access key and secret key as well as the preferred location, I could use the AWS CLI commands as previously and downloaded the testfile1 from the cm210980 bucket.



Testfile1 appears as test2.txt because during the download it was renamed. I am showing the location of the test2.txt file in the WinSCP window. I have also installed WinSCP on my Windows VM and used it to connect to the s3 bucket. Since I am not a Windows user, I wanted to get the experience of also using WinSCP.




I disabled the keys, deleted the s3 bucket and logged off the VMs.