Final Lab

Objective

The purpose of this lab was to demonstrate my proficiency in the following services provided by AWS: IAM, EC2, EBS, CloudFront and Route 53. I used all 5 of these services to create security groups, inbound rules, virtual PCs, load balancers and DNS entries within AWS's administrative console and tie them all together. I attached screenshots of the configuration settings I used below.

Figure 1

First, I created a security group with inbound rules for Ports 22, 80, 3389 and 443.

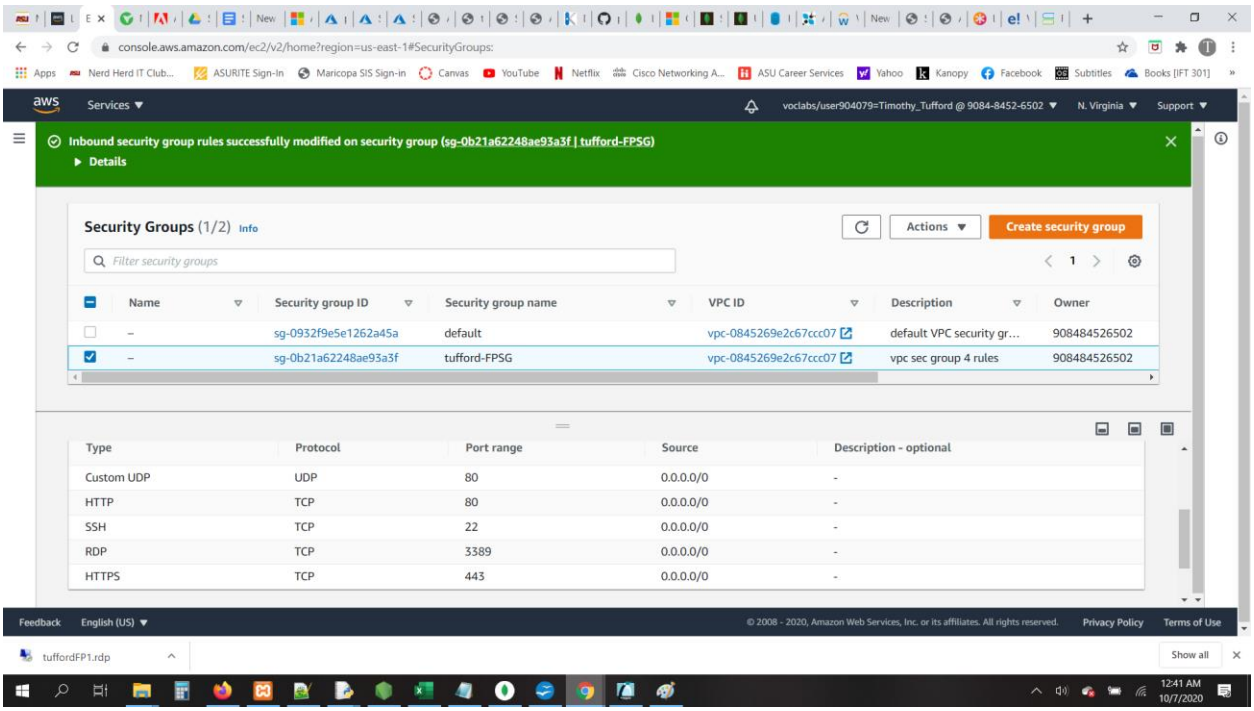

Figure 2

Later, I created two micro-instances in EC2. They both ran Windows Server 2019 and were attached to the security group created in Figure 1.

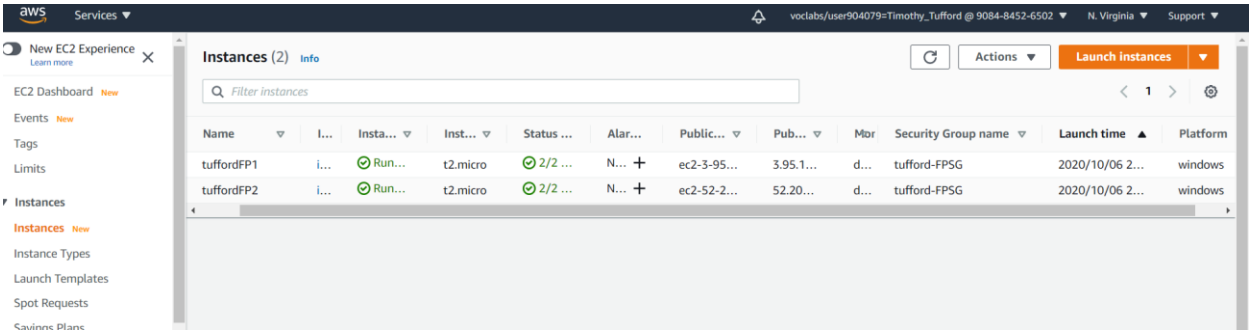

Figure 3

Next, I installed Internet Information Services (IIS) on the 1st server via Remote Desktop Connection. This is a screenshot from within the virtual machine.

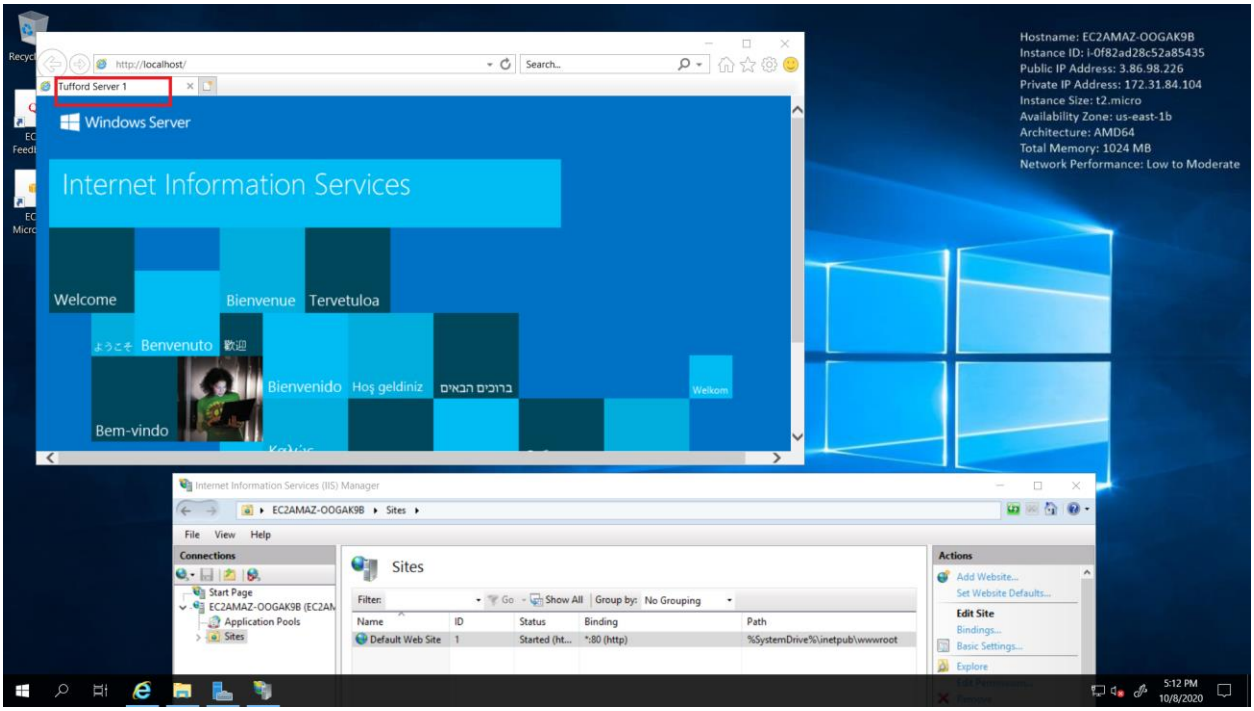

Figure 4

I then installed Internet Information Services (IIS) on the 2nd server via Remote Desktop Connection. This is a screenshot from within the virtual machine.

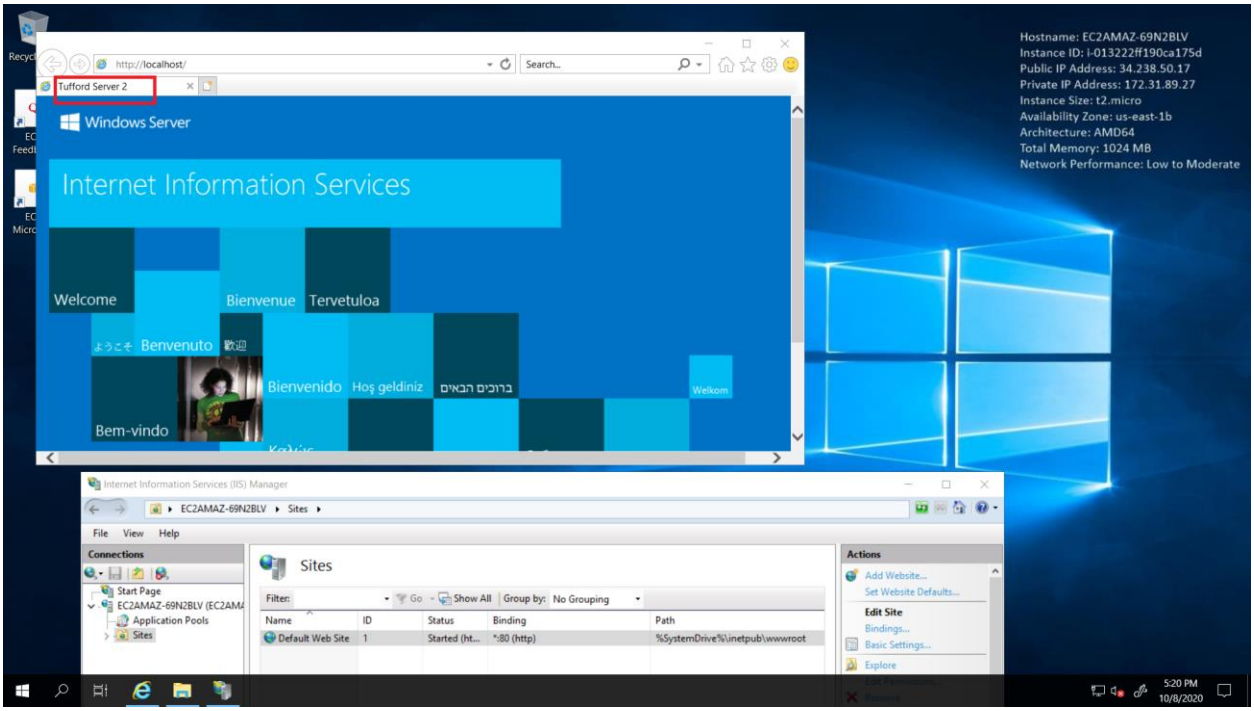

Figure 5

Next, I created a load balancer on port 80 and attached it to the two Windows servers I created in Figures 3 and 4.

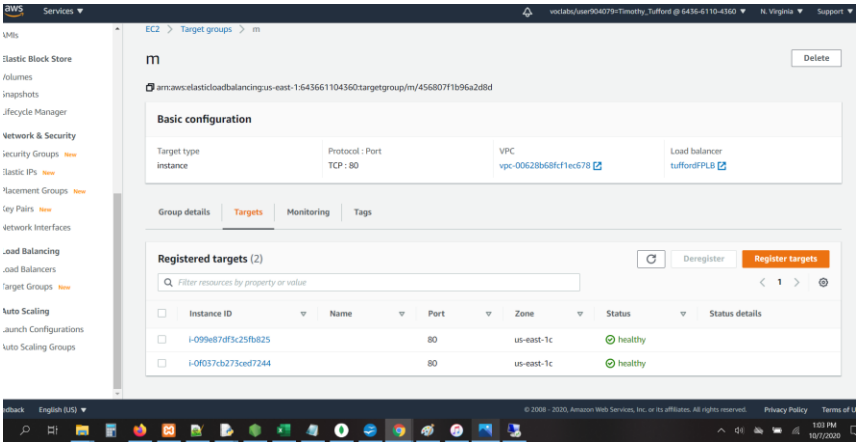

Figure 6

I then pinged the webpage of my load balancer to verify it could be reached through a URL outside of my virtual environment.

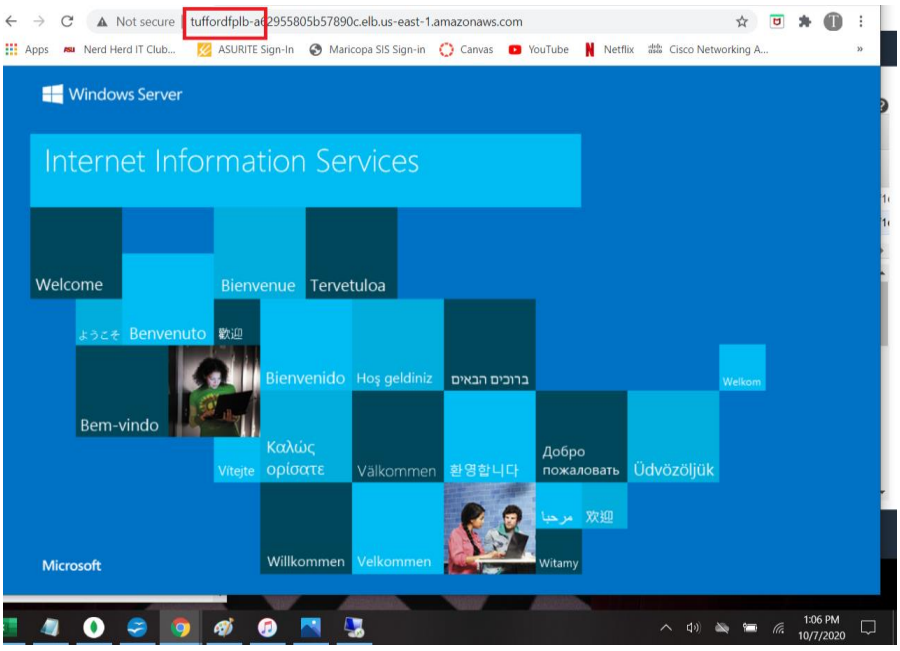

Figure 7

Next, I created a CloudFront distribution to cache the load balancer I made in Figure 6.

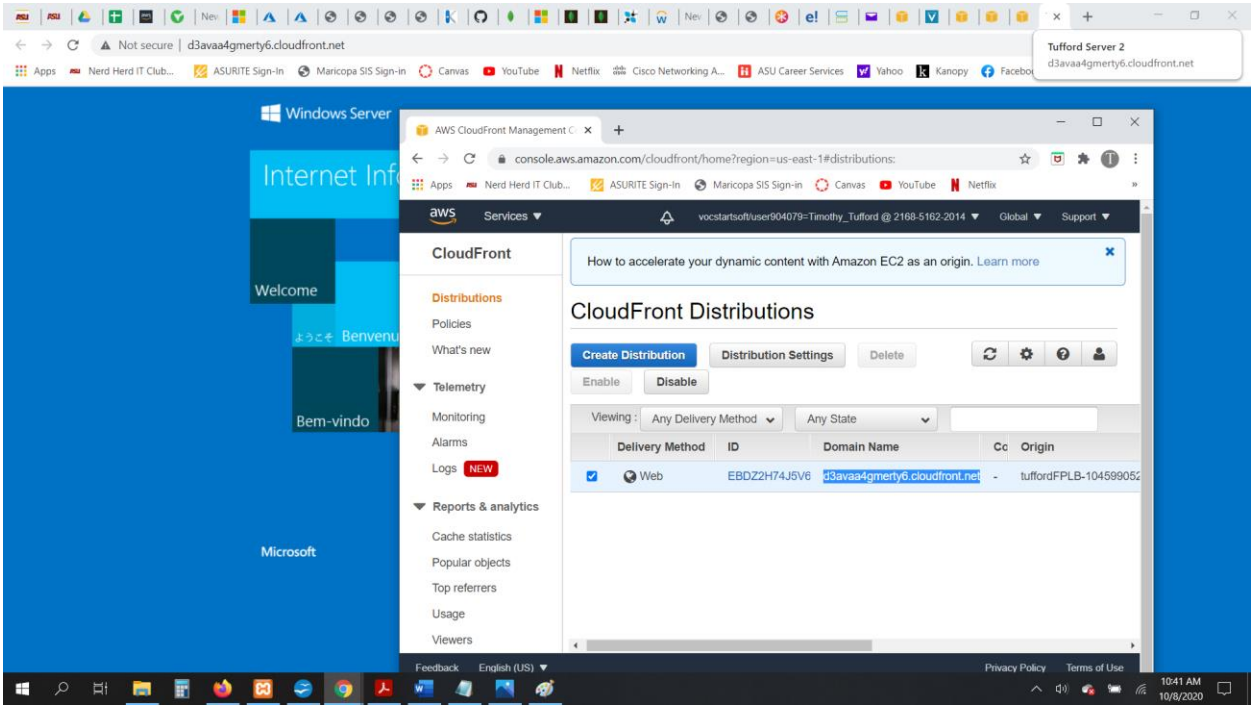

Figure 8

Afterward, I created a DNS space in AWS Route 53 and attached it to the Cloudfront entry I made above.