CP4 100311216   Austin MacKenzie   amackenzie10   CSN400CC
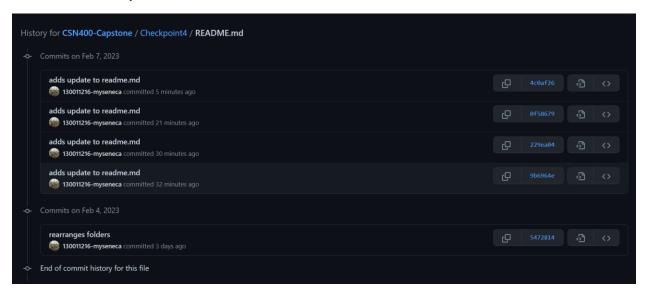
Root Folder:

https://github.com/130011216-myseneca/CSN400-Capstone
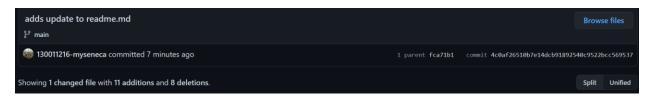
Checkpoint 4 Folder:

https://github.com/130011216-myseneca/CSN400-Capstone/tree/main/Checkpoint4

README.md history:

Commits number:

Git log -n 1:

```
austi@Ausmack MINGW64 ~/Desktop/    /Semester 4/CSN400NCC/Github/CSN400-Capstone/Checkpoint4 (main)
$ git log -n 1
commit 4c0af26510b7e14dcb91892540c9522bcc569537 (HEAD -> main, origin/main, origin/HEAD)
Author: 130011216-myseneca <122462473+130011216-myseneca@users.noreply.github.com>
Date:   Tue Feb 7 19:34:42 2023 -0500

    adds update to readme.md

austi@Ausmack MINGW64 ~/Desktop/    /Semester 4/CSN400NCC/Github/CSN400-Capstone/Checkpoint4 (main)
$ 
```

1. The Azure Virtual Network is basically a network that is cloud based and purchased on a subscription payment model owned by Microsoft. Using virtual network's, you can create networks between other VNets, work with subnets, create security groups, run VPNs and more. It offers a high level of security and ease of use.

2. On-premises computers can access Azure virtual network resources by using point-to-site VPN. To ensure security precautions one must authenticate with Azure certificate authentication or Azure Active Directory Authentication.

3. The most important benefits of Azure Virtual Networks would be cost, security and reliability. The most common subscription is a pay as you go model which allows users to save costs by only using what they need. Azure's security is controlled by Microsoft which is constantly updated and utilizes multi layered security. Reliability is a major selling point for Azure as they offer numerous database centers, so if there is an issue with a certain location another center can take over the workload.

4. The difference between Network Security Group and Route-Tables are that the security group allows specific traffic to flow through the network based on security rules while Route-Tables tell the network which way to proceed.

5. Network Security Groups differ from Firewalls since Network Security groups allow traffic based on security rules while Firewalls offer more of a robust protection by having more security features such as threat intelligence.

6. Hub and spoke networking is where a central unit is connected to numerous other networks. This can be done by creating a creating a network group and choosing hub and spoke in network topology in the connectivity configuration.

7. Defining gateways is not required as Azure routes traffic automatically.

8. Virtual Network Gateways are used to secure network traffic from your local machine to the Azure virtual network.