# CST8248 – Emerging Technologies

**Assignment 2 – Project Quality and Testing**

Project done by :

# Ridham Gondaliya : 040974805

# Nikhil Khanna :040951233

# Stella Odagwe : 040914305

P**urpose**:

To continue planning for your project deployment, ensure that platforms and services are operating as expected.

**Objectives:**

**Quality Assurance:** As you progress through deploying platforms and services your network will increase in complexity. As a team you are tasked with developing a quality control plan to and ensure that your client receives the deliverable you have designed. Your quality assurance plan should include fit and finish items such as security configs (ie. Firewall) install files cleanup etc.

In the quality control plan, we need to make sure that the network reachable to all the client. For that we have to configure the DNS service in each platform so that clients can reach out to the service by the hostname we have configured. We have also to make sure that the Firewall is also properly working in order to prevent the clients from being attacked by the outsiders.

**Hardware Plan:** For each service detail the platform your team will be deploying and provide a table of specifications. (ie. CPU, Memory, Network, Storage etc.)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Platform** | **Services** | **RAM**  **(in GB)** | **CPU** | **Storage**  **(in GB)** | **Network Adaptor** | | |
| **Blue** | **Red** | **Green** |
| Cent-OS Linux (VM1) | HTTP web server | 4 | 1 | 20 | 1 | 1 | 0 |
| Windows Server 2016(VM2) | AD DNS | 6 | 4 | 40 | 1 | 1 | 0 |
| Windows Server 2016(VM3) | File Server(SMB), Telnet client | 4 | 2 | 40 | 1 | 1 | 1 |
| Vsphere6.0 client | Vsphere | 4 | 2 |  | 1 | 1 | 1 |
| Windows Server 2019(VM4) | Spiceworks, ADP | 4 | 2 | 40 | 1 | 1 | 0 |
| Windows server 2016(VM5) | Veeam | 4 | 2 | 40 | 1 | 1 | 1 |
| Windows server 2019(VM6) | WAC | 4 | 2 | 40 | 1 | 1 | 0 |
| Windows server 2016 | iSCSI | 4 | 2 | 40 | 0 | 1 | 1 |
| Windows Client |  | 2 | 2 | 20 | 1 | 1 | 0 |
| Linux Client |  | 2 | 2 | 20 | 1 | 1 | 0 |

**Network Plan:** Provide a table of IP addresses as well as a network topology diagram detailing the connectivity between each platform and service.

**IP Addressing :**

|  |  |  |  |
| --- | --- | --- | --- |
| Platform | Service | Blue NIC | RED NIC |
| Cent-OS Linux (VM1) | HTTP web server | 172.20.85.20 | 172.30.85.20 |
| Windows Server 2016(VM2) | AD DNS | 172.20.85.25 | 172.30.85.25 |
| Windows Server 2016(VM3) | File Server(SMB), Telnet client | 172.20.85.30 | 172.30.85.30 |
| Vsphere6.0 client | Vsphere | 172.20.85.35 | 172.30.85.35 |
| Windows Server 2019(VM4) | Spiceworks, ADP | 172.20.85.40 | 172.30.85.40 |
| Windows server 2016(VM5) | Veeam | 172.20.85.45 | 172.30.85.45 |
| Windows server 2019(VM6) | WAC | 172.20.85.50 | 172.30.85.50 |
| Windows server 2016 | iSCSI |  | 172. |
| Windows Client |  | 172.20.85.55 | 172.30.85.55 |
| Linux Client |  | 172.20.85.60 | 172.30.85.60 |

**Test Plan:** Provide a plan detailing how your team plans to ensure technical functionality. The test plan should compliment your quality assurance plan. Modify the rubric below to suit your needs when formulating this plan.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **Destination** | **Service** | **Test command** | **Comment** | **Test Date** |
| Win Client | Win File Server | SMB | Not testedd | Check Firewall, service status, permissions, server/share name, DNS | 10/16/2020 |
| iSCSI Initiator | iSCSI Target | iSCSI | Not tested |  | 10/25/2020 |
| Windows client | VM2- dns server | DNS | nslookup | Check for the name resolution for the dns server | 10/10/2020 |
| Linux Client | VM1-web server | HTTP | Not tested |  | 10/26/2020 |
| Windows client | VM5-Backup server | veeam | Not tested |  | 10/28/2020 |
| VM4-Windows Server | VM2-Windows server | spicework | Not tested |  | 10/28/2020 |