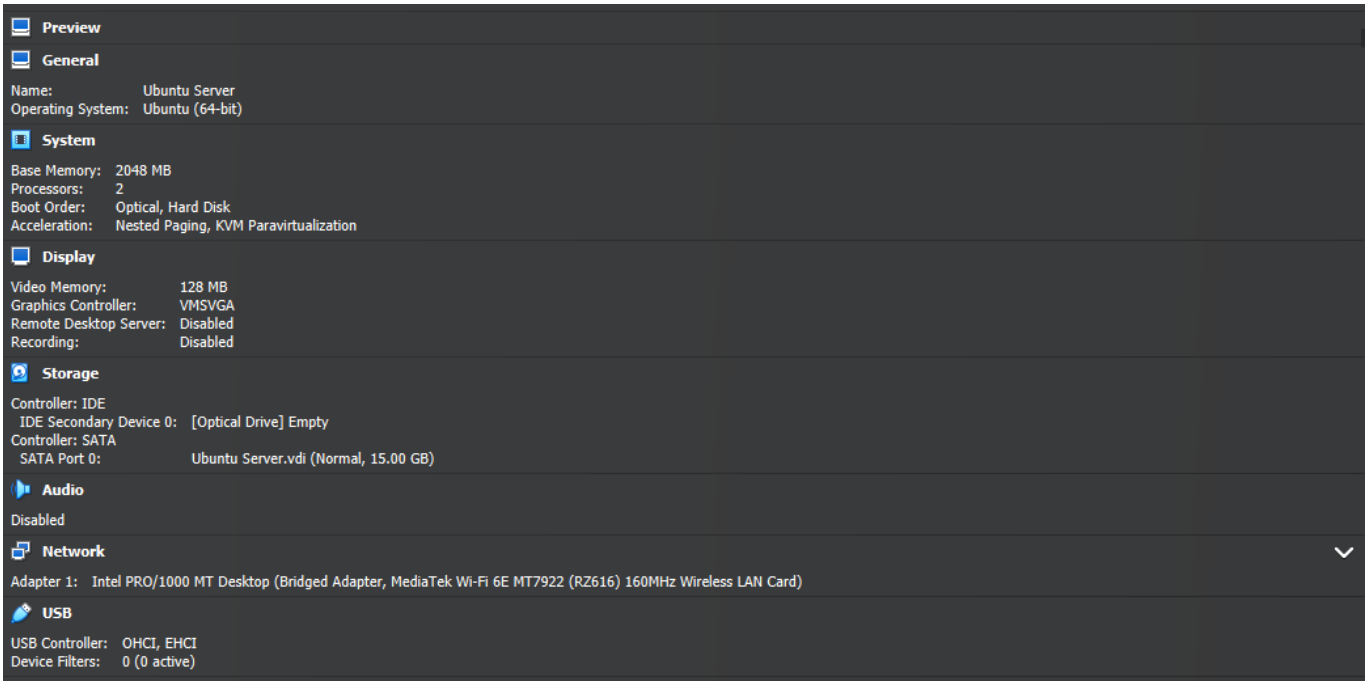
Final Project Deliverable 2

Question 1: What are the server hardware specifications(virtual machine settings)?



Question 2: What is the Ubuntu server login screen

Question 3: What is the IP address of your ubuntu server virtual machine

The IP address of my server virtual machine is 192.168.1.152. This can be found once you are logged into the server next to IPV4 address for enp0s3

```
PS C:\Users\Owner> ssh servernoob@192.168.1.152
servernoob@192.168.1.152's password:
Welcome to Ubuntu 22.04.4 LTS (GNU/Linux 5.15.0-105-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

  System information as of Wed Apr 24 04:41:32 AM UTC 2024

  System load:  0.0               Processes:               120
  Usage of /:   48.1% of 9.75GB   Users logged in:         0
  Memory usage: 11%               IPv4 address for enp0s3: 192.168.1.152
  Swap usage:   0%

 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
   just raised the bar for easy, resilient and secure K8s cluster deployment.

   https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status


Last login: Wed Apr 24 04:41:32 2024
servernoob@projectserver:~$
```

Question 4: How do you enable the Ubuntu Firewall?

You can enable the ubuntu firewall by running the command `sudo ufw enable`

```
servernoob@projectserver:~$ sudo ufw enable
Command may disrupt existing ssh connections. Proceed with operation (y|n)? y
Firewall is active and enabled on system startup
servernoob@projectserver:~$
```

Question 5: How do you check if the Ubuntu Firewall is running?

You can check if the firewall is running by using the command `sudo ufw status`

```
servernoob@projectserver:~$ sudo ufw status
Status: active

To                         Action      From
--                         ------      ----
Apache                     ALLOW       Anywhere
OpenSSH                    ALLOW       Anywhere
Apache (v6)                ALLOW       Anywhere (v6)
OpenSSH (v6)               ALLOW       Anywhere (v6)

servernoob@projectserver:~$
```

Question 6: How do you disable Ubuntu Firewall

You can disable the firewall by using the same command used to enable but opposite

```
servernoob@projectserver:~$ sudo ufw disable
Firewall stopped and disabled on system startup
servernoob@projectserver:~$
```

Question 7: How do you add apache to the firewall?

You can add apache to the firewall by running the following command `sudo ufw allow 'Apache'`

```
servernoob@projectserver: ~   Windows PowerShell

servernoob@projectserver:~$ sudo ufw allow 'Apache'
Rule added
Rule added (v6)
servernoob@projectserver:~$ sudo ufw status
Status: active

To                         Action      From
--                         ------      ----
OpenSSH                    ALLOW       Anywhere
Apache                     ALLOW       Anywhere
OpenSSH (v6)               ALLOW       Anywhere (v6)
Apache (v6)                ALLOW       Anywhere (v6)

servernoob@projectserver:~$
```

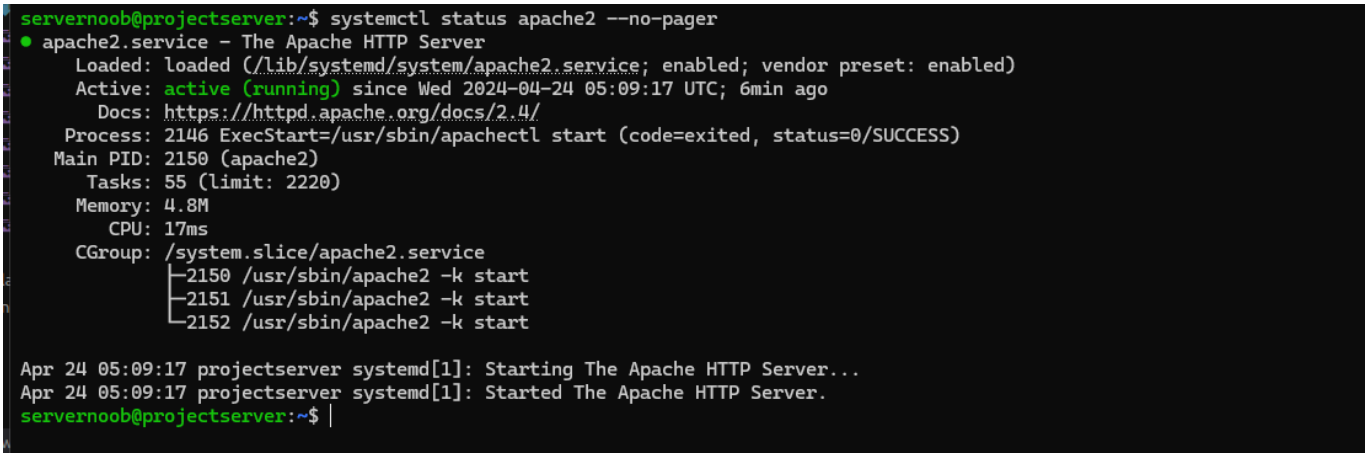
Question 8: What is the command you used to install Apache?

The command used to install Apache is `sudo apt install apache2 -y`

```
servernoob@projectserver:~$ sudo apt install apache2 -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
apache2 is already the newest version (2.4.52-1ubuntu4.9).
0 upgraded, 0 newly installed, 0 to remove and 2 not upgraded.
servernoob@projectserver:~$
```

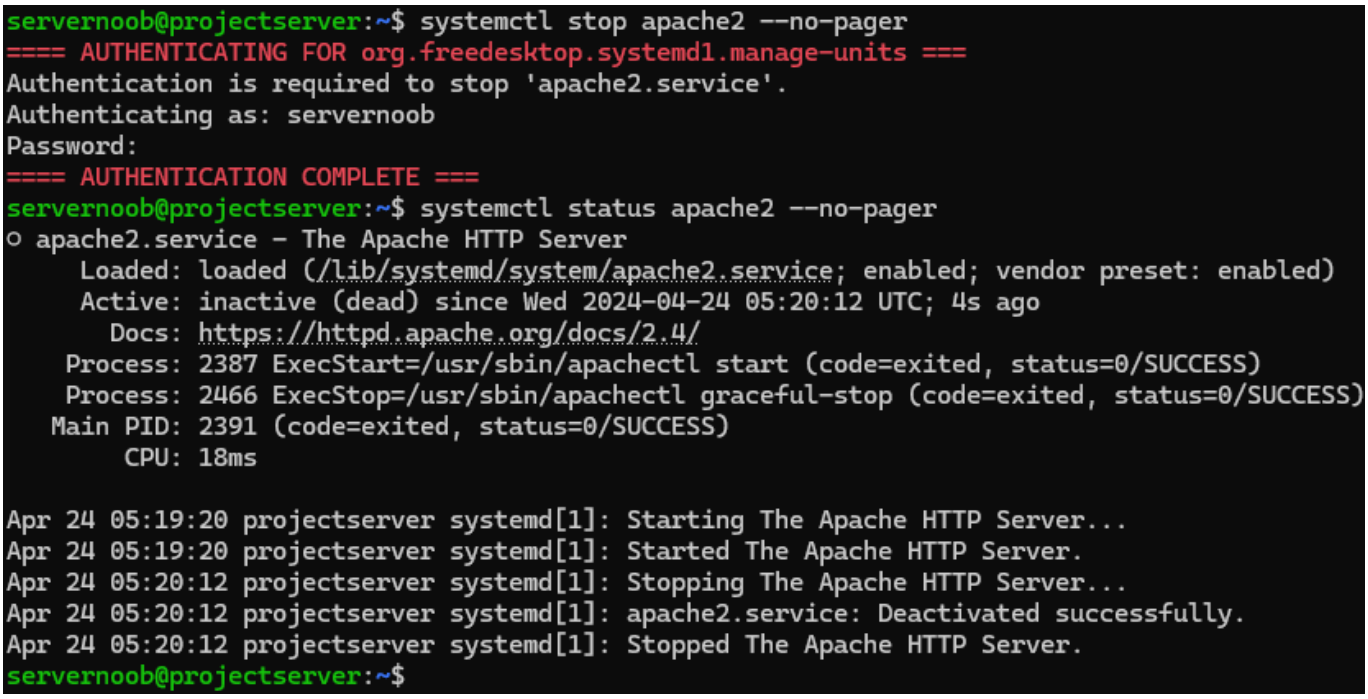
Question 9: What is the command you use to check if Apache is running

The command you would use to see if Apache is running is `sudo systemctl status apache2 --no-pager`



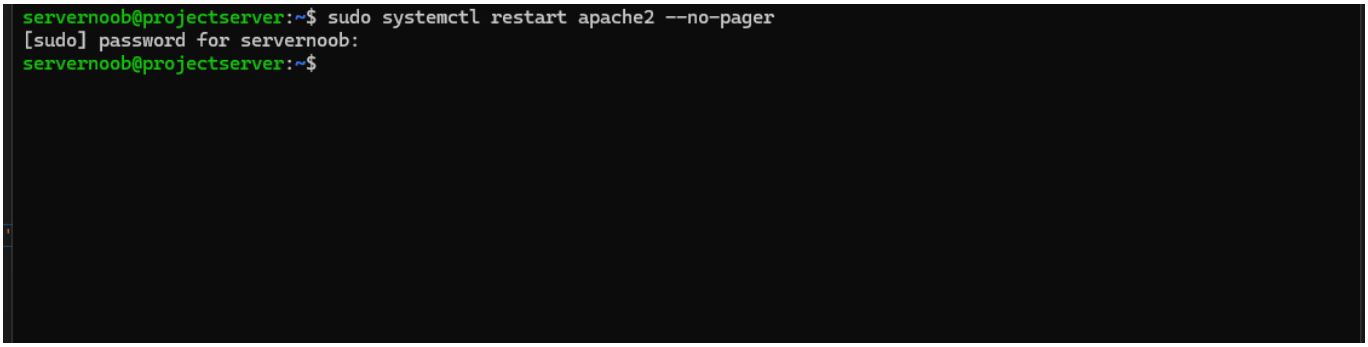
Question 10: What is the command you use to stop Apache?

The command you would use to stop Apache is `sudo systemctl stop apache2 --no-pager`



Question 11: What is the command you would use to restart Apache?

The command you would use to restart Apache would be `sudo systemctl restart apache2 --no-pager`



Question 12: What is the command used to test Apache configuration?

The command used to test for Apache configuration is `sudo apachect1-t`

```
servernoob@projectserver:~$ sudo apachectl -t
Syntax OK
servernoob@projectserver:~$
```

Question 13: What is the command used to check the installed version of Apache?

The command you would use to check for the installed version of Apache is `sudo apache2 -v`

```
servernoob@projectserver:~$ sudo apache2 -v
Server version: Apache/2.4.52 (Ubuntu)
Server built:   2024-04-10T17:45:18
servernoob@projectserver:~$
```

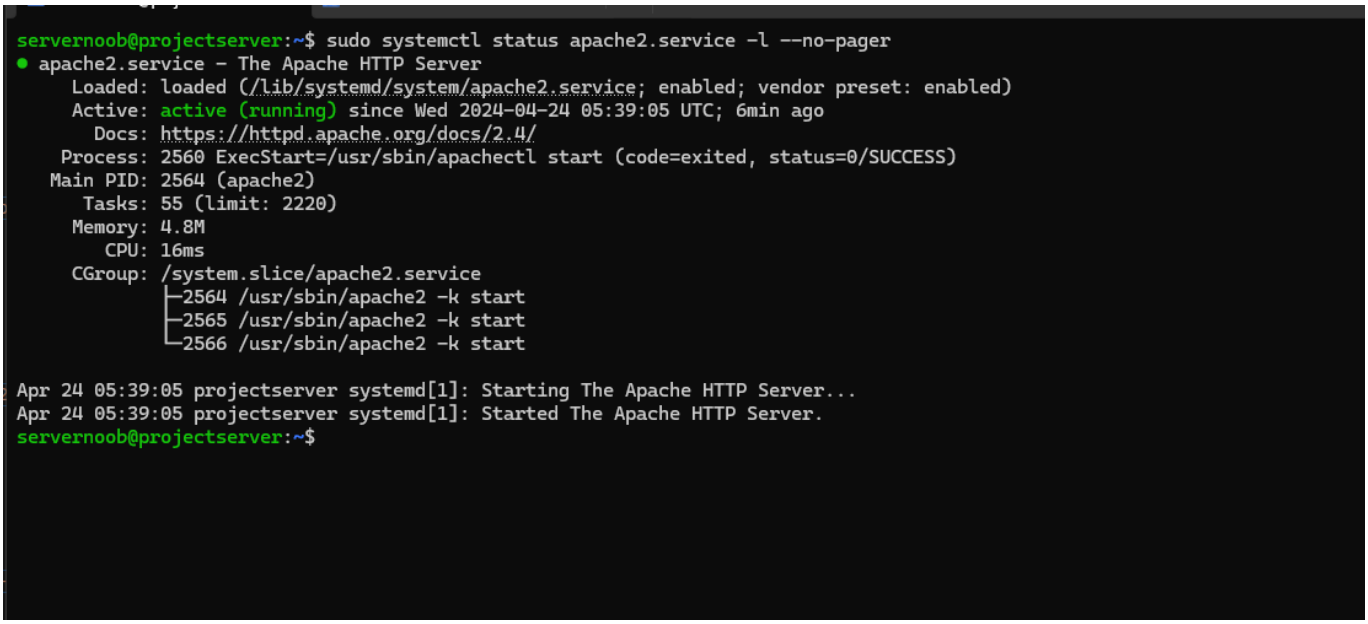
Question 14: What are the most common commands to troubleshoot Apache errors?

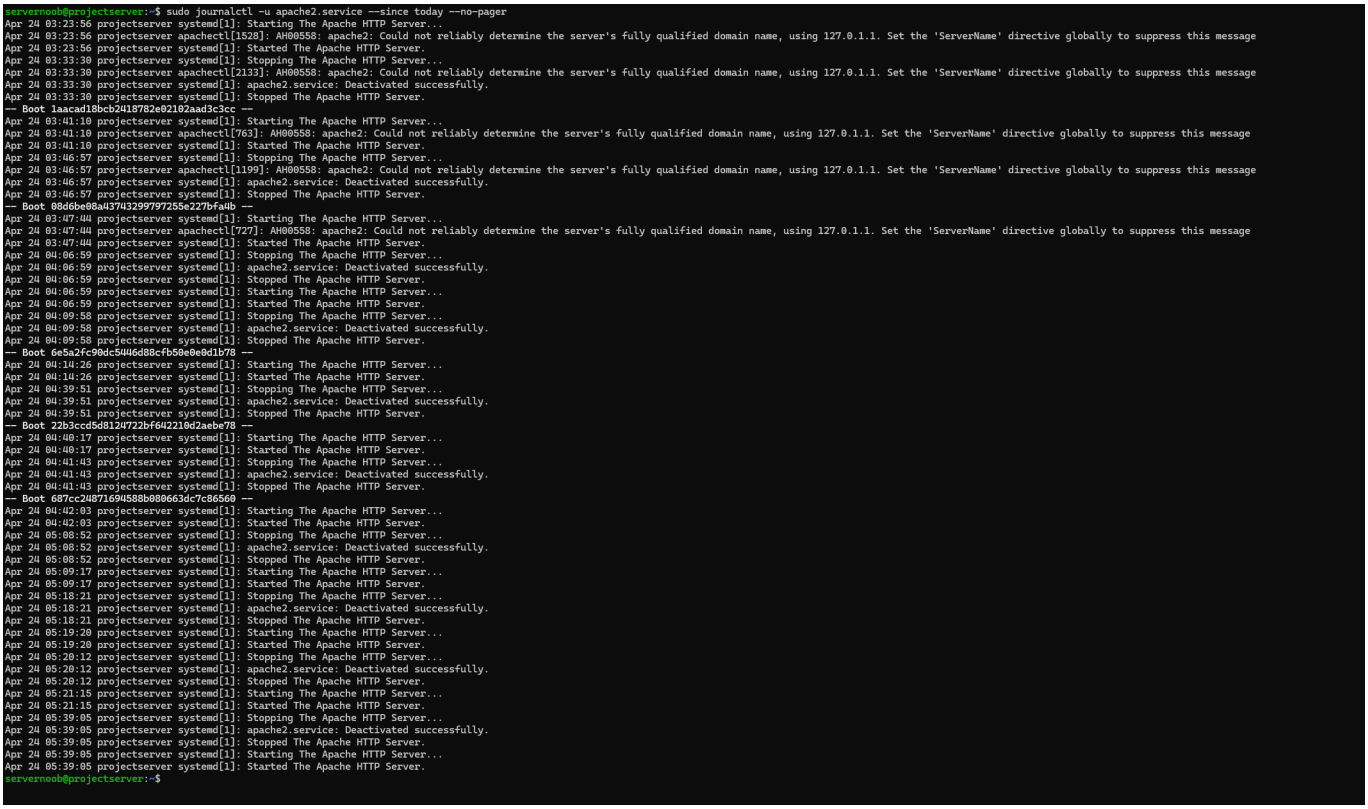
The most common commands used to troubleshoot Apache errors are `systemctl`, `journalctl`, and `apachect1`

Descriptions

- Systemctl is the first common command and is used to control and interact with Linux services via the `systemd` service manager.
- Journalctl is the second common command and is used to query and view the logs that are generated by `systemd`.
- Apachect1 is the third common command and is used to check Apache's configuration.

Examples:





Question 15: WHich are Apache log Files, and what are they used for?

Apache log Files are a helpful resource for troubleshooting. they are used to indicate a specific error with helpful diagnostic messages and error codes.

```
servernoob@projectserver:~$ sudo tail -n 2 /var/log/apache2/error.log
[Wed Apr 24 05:39:05.889738 2024] [mpm_event:notice] [pid 2564:tid 140375633004416] AH00489: Apache/2.4.52 (Ubuntu) conf
igured -- resuming normal operations
[Wed Apr 24 05:39:05.889776 2024] [core:notice] [pid 2564:tid 140375633004416] AH00094: Command line: '/usr/sbin/apache2
'
servernoob@projectserver:~$
```