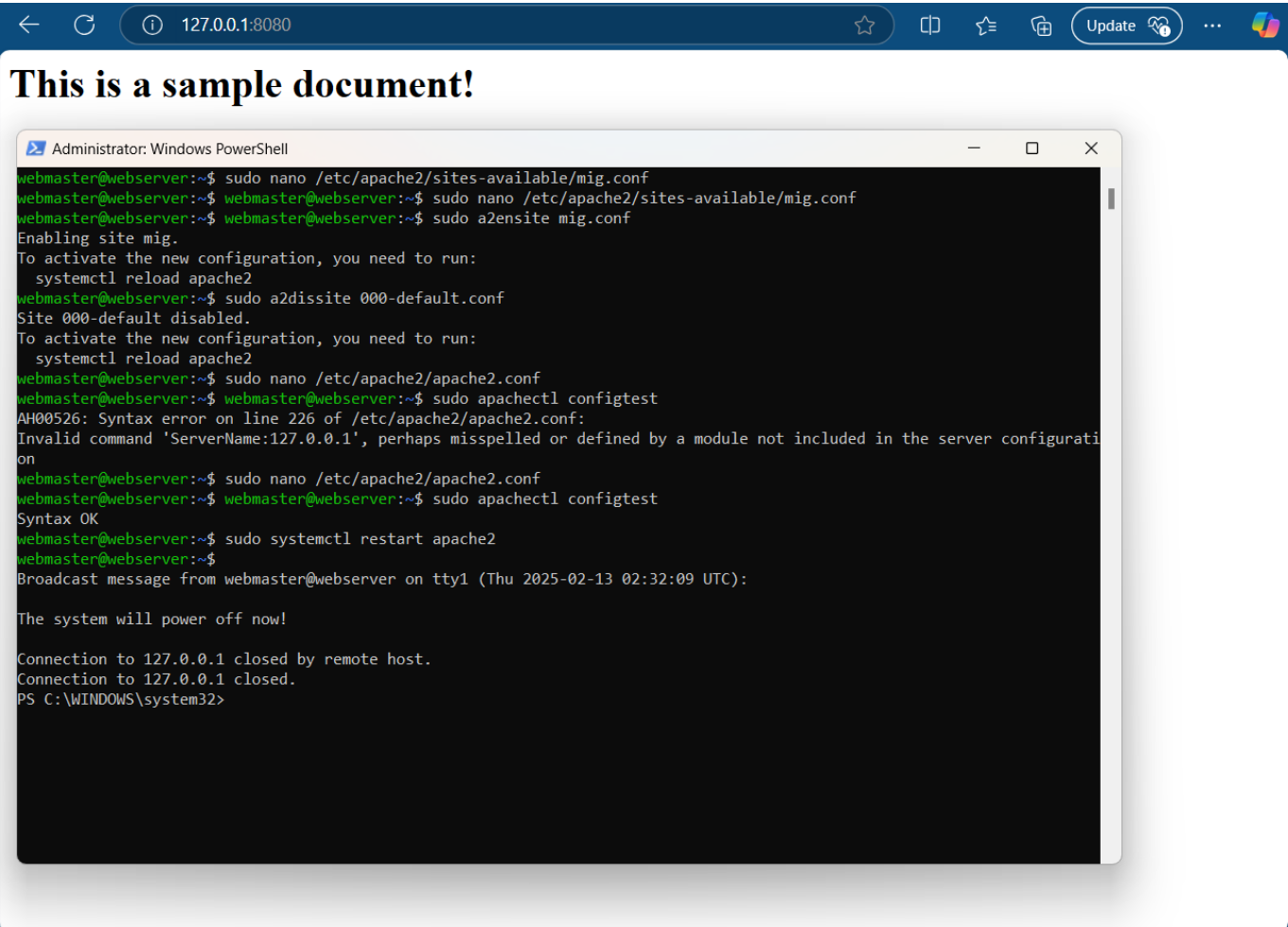
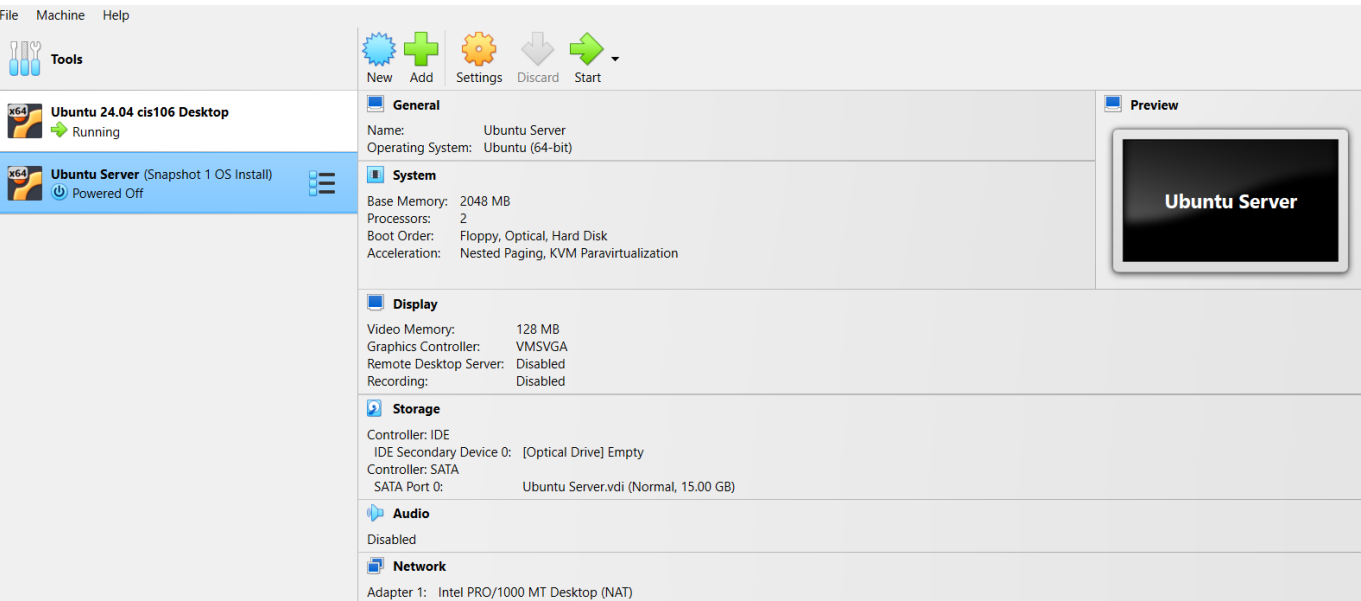


Deliverable 2

Web Sample Document



Server Specifications



Ubuntu Login Screen

```
Ubuntu 24.04.1 LTS webserver tty1

webserver login: webmaster
Password:
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-53-generic x86_64)

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

System information as of Thu Feb 13 12:58:51 AM UTC 2025

System load:            0.06
Usage of /:             42.9% of 9.75GB
Memory usage:          10%
Swap usage:            0%
Processes:             124
Users logged in:       0
IPv4 address for enp0s3: 10.0.2.15
IPv6 address for enp0s3: fd00::a00:27ff:fef6:6773

Expanded Security Maintenance for Applications is not enabled.

133 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

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

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

webmaster@webserver:~$
```

Questions

3. **What is the IP address of your Ubuntu Server Virtual Machine?** The IP address for my VM is 10.0.2.15 .
4. **How do you enable the Ubuntu Firewall?** The command used is `sudo ufw enable`.
5. **How do you check if the Ubuntu Firewall is running?** The command used is `sudo ufw status`.
6. **How do you disable the Ubuntu Firewall?** The command used is `sudo ufw disable`.
7. **How do you add Apache to the Firewall?** The command used is `sudo ufw allow 'Apache'`.

8. **What is the command you used to install Apache?** The command used is `sudo apt install apache2`.
9. **What is the command you use to check if Apache is running?** The command used is `sudo systemctl status apache2 --no-pager`.
10. **What is the command you use to stop Apache?** The command used is `sudo systemctl stop apache2 --no-pager`.
11. **What is the command you use to restart Apache?** The command used is `sudo systemctl restart apache2 --no-pager`.
12. **What is the command used to test Apache configuration?** The command used is `sudo apachectl -t` or `sudo apachectl configtest`.
13. **What is the command used to check the installed version of Apache?** The command used is `sudo apache2 -v`.
14. **What are the most common commands to troubleshoot Apache errors? Provide a brief description of each command.**
 - **systemctl:** This command interacts with services managed by *systemd*. In Apache, You can use `systemctl` to start, stop, restart, or check the status of the apache service.
 - **journalctl:** This command allows you to view logs generated by *systemd* services, including Apache. It's useful for reviewing detailed logs about what's happening with Apache and identifying any issues.
 - **apachectl:** This command is used to manage Apache and check its configuration. When troubleshooting, you can use `apachectl configtest` to test Apache's configuration for errors before restarting the service.
15. **Which are Apache Log Files, and what are they used for? Provide examples and screenshots.**

Error log files

```
webmaster@webserver:~$ ls /var/log/apache2/error.log
/var/log/apache2/error.log
webmaster@webserver:~$ cat /var/log/apache2/error.log
[Thu Feb 13 01:15:09.350314 2025] [mpm_event:notice] [pid 1619:tid 132757299132288] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations
[Thu Feb 13 01:15:09.350411 2025] [core:notice] [pid 1619:tid 132757299132288] AH00094: Command line: '/usr/sbin/apache2'
[Thu Feb 13 01:30:27.380593 2025] [mpm_event:notice] [pid 1619:tid 132757299132288] AH00492: caught SIGWINCH, shutting down gracefully
[Thu Feb 13 01:36:14.118320 2025] [mpm_event:notice] [pid 946:tid 129136704808832] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations
[Thu Feb 13 01:36:14.122011 2025] [core:notice] [pid 946:tid 129136704808832] AH00094: Command line: '/usr/sbin/apache2'
[Thu Feb 13 01:41:25.601523 2025] [mpm_event:notice] [pid 946:tid 129136704808832] AH00492: caught SIGWINCH, shutting down gracefully
[Thu Feb 13 01:46:19.699983 2025] [mpm_event:notice] [pid 893:tid 126000186312576] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations
[Thu Feb 13 01:46:19.702476 2025] [core:notice] [pid 893:tid 126000186312576] AH00094: Command line: '/usr/sbin/apache2'
[Thu Feb 13 01:49:19.202696 2025] [mpm_event:notice] [pid 893:tid 126000186312576] AH00492: caught SIGWINCH, shutting down gracefully
[Thu Feb 13 01:57:22.773967 2025] [mpm_event:notice] [pid 925:tid 124491920312192] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations
[Thu Feb 13 01:57:22.776480 2025] [core:notice] [pid 925:tid 124491920312192] AH00094: Command line: '/usr/sbin/apache2'
[Thu Feb 13 02:31:01.192340 2025] [mpm_event:notice] [pid 925:tid 124491920312192] AH00492: caught SIGWINCH, shutting down gracefully
[Thu Feb 13 02:31:01.238682 2025] [mpm_event:notice] [pid 1350:tid 128487240398720] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations
[Thu Feb 13 02:31:01.238785 2025] [core:notice] [pid 1350:tid 128487240398720] AH00094: Command line: '/usr/sbin/apache2'
[Thu Feb 13 02:32:09.225473 2025] [mpm_event:notice] [pid 1350:tid 128487240398720] AH00492: caught SIGWINCH, shutting down gracefully
[Thu Feb 13 02:32:12.677683 2025] [core:warn] [pid 1350:tid 128487240398720] AH00045: child process 1352 still did not exit, sending a SIGTERM
[Thu Feb 13 02:32:14.681883 2025] [core:warn] [pid 1350:tid 128487240398720] AH00045: child process 1352 still did not exit, sending a SIGTERM
[Thu Feb 13 02:32:16.686224 2025] [core:warn] [pid 1350:tid 128487240398720] AH00045: child process 1352 still did not exit, sending a SIGTERM
[Thu Feb 13 02:32:18.690388 2025] [core:error] [pid 1350:tid 128487240398720] AH00046: child process 1352 still did not exit, sending a SIGKILL
[Mon Feb 17 23:54:31.101153 2025] [mpm_event:notice] [pid 943:tid 135498523998080] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations
[Mon Feb 17 23:54:31.106237 2025] [core:notice] [pid 943:tid 135498523998080] AH00094: Command line: '/usr/sbin/apache2'
```

Apache log files are files generated by Apache HTTP server that record many events and requests made to the server. They are used for monitoring, troubleshooting, and analyzing server activity. There are two types Access logs which records details about incoming requests to the server and error logs which records any errors or issues encountered by the server.

