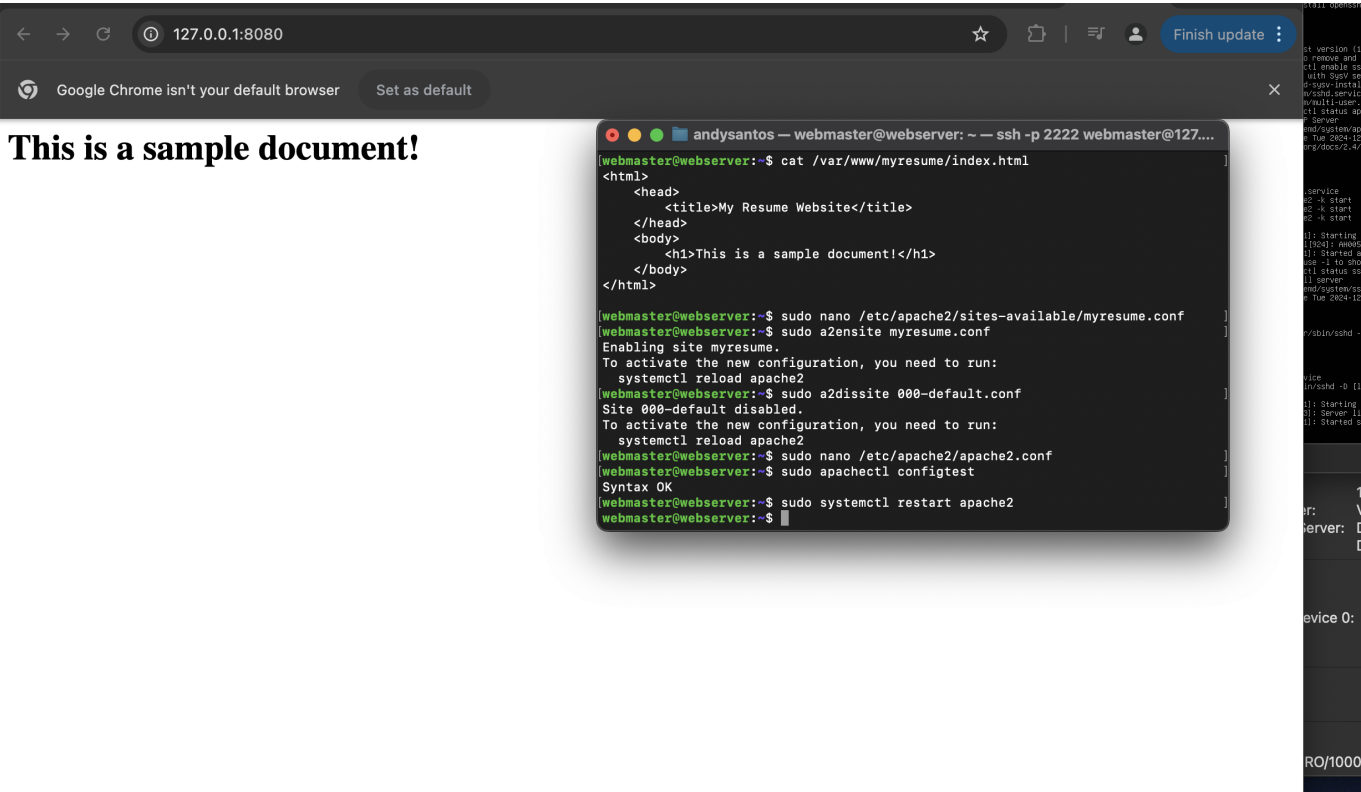
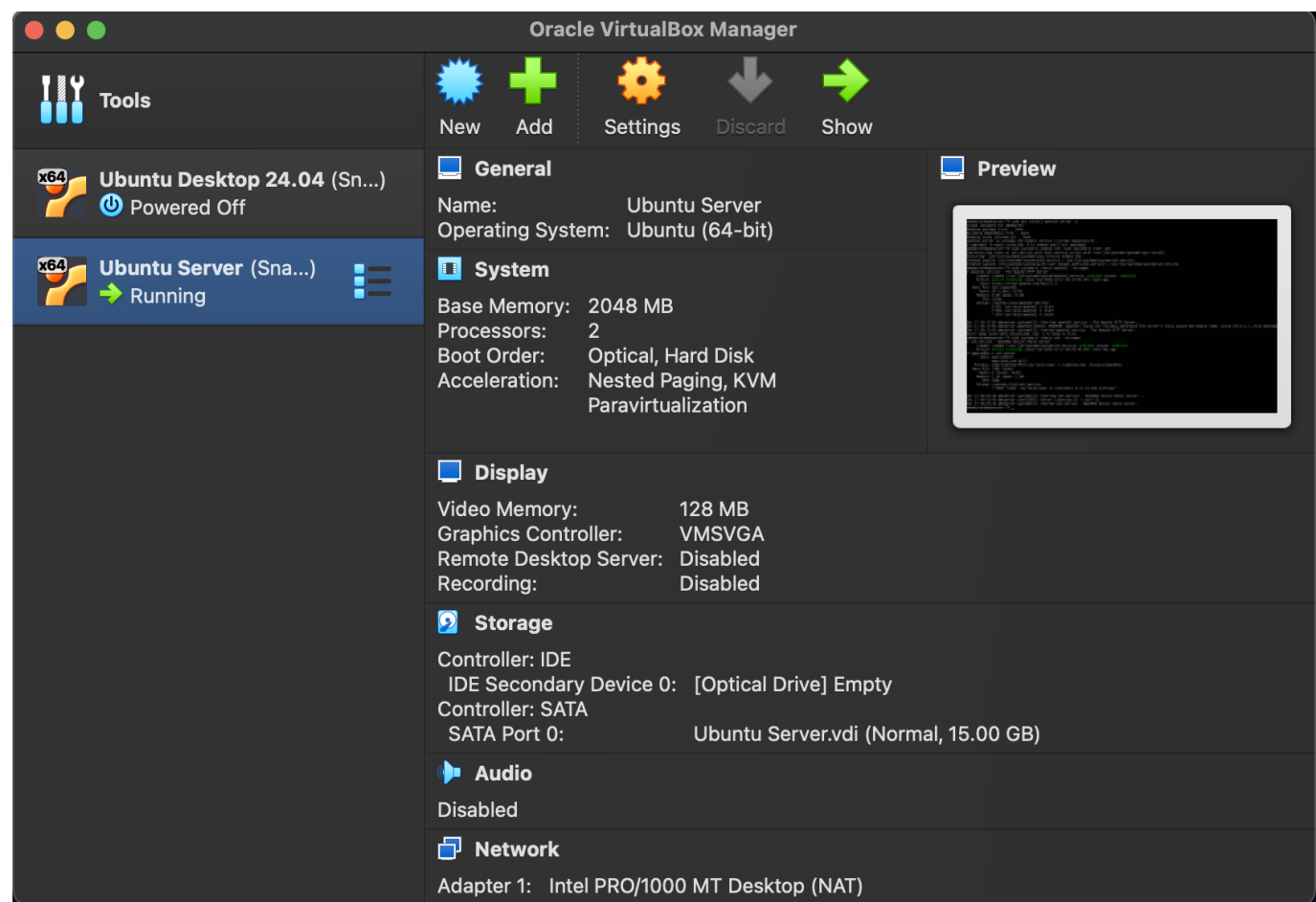


# Deliverable 2

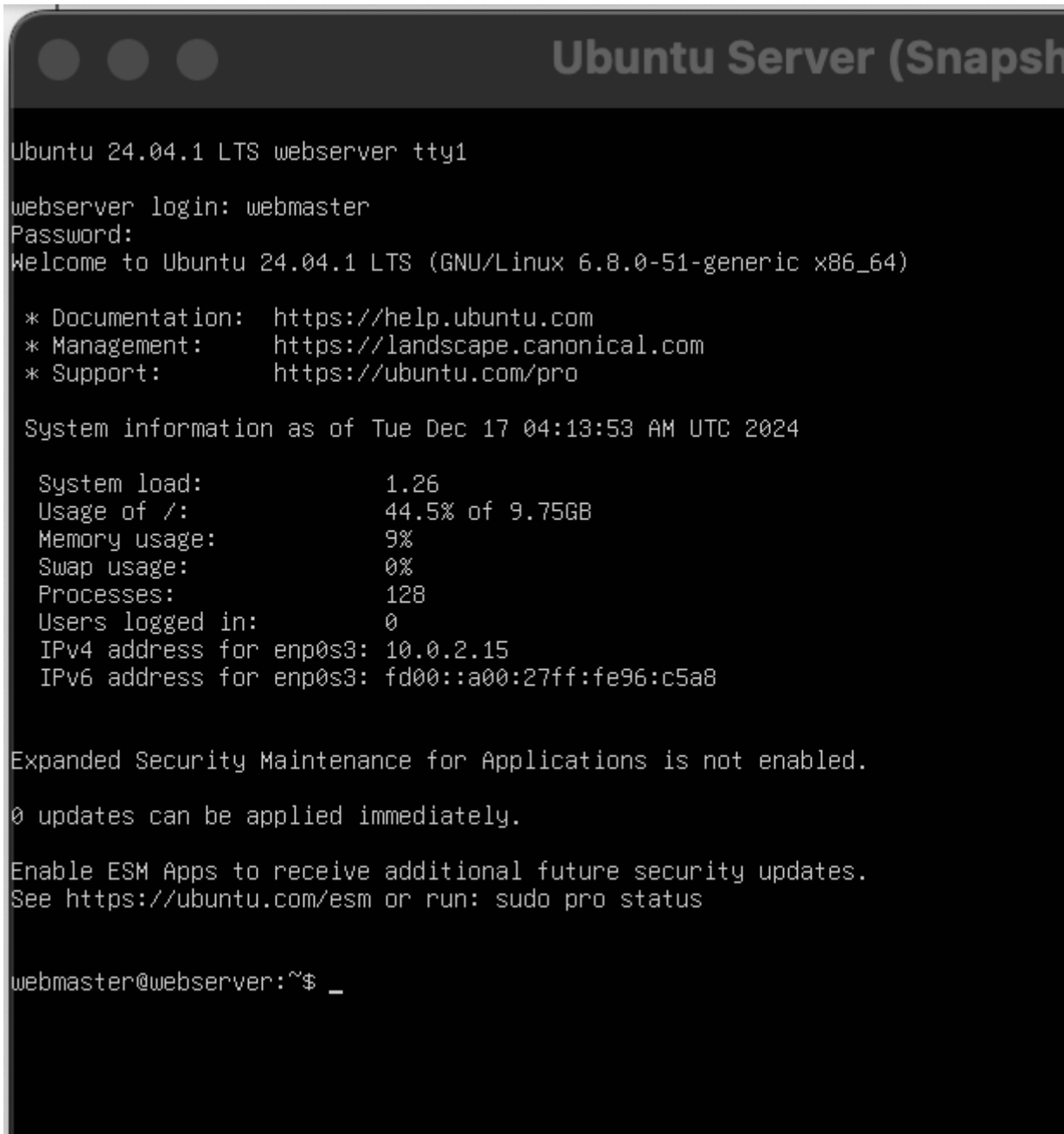
## Web Samaple Document



## Server Specifications



Ubuntu Login Screen



```
Ubuntu Server (Snapshot)

Ubuntu 24.04.1 LTS webserver tty1

webserver login: webmaster
Password:
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-51-generic x86_64)

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

System information as of Tue Dec 17 04:13:53 AM UTC 2024

System load:          1.26
Usage of /:           44.5% of 9.75GB
Memory usage:         9%
Swap usage:           0%
Processes:            128
Users logged in:      0
IPv4 address for enp0s3: 10.0.2.15
IPv6 address for enp0s3: fd00::a00:27ff:fe96:c5a8

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

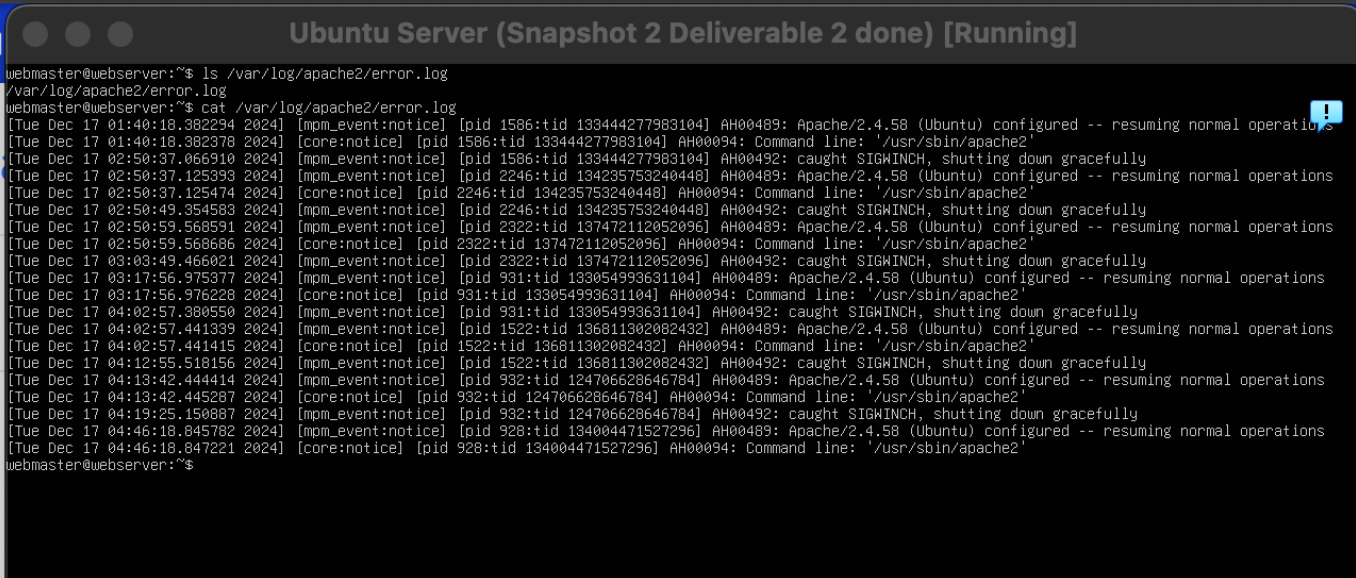
webmaster@webserver:~$ _
```

## 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



```
Ubuntu Server (Snapshot 2 Deliverable 2 done) [Running]
webmaster@webserver:~$ ls /var/log/apache2/error.log
/var/log/apache2/error.log
webmaster@webserver:~$ cat /var/log/apache2/error.log
[Tue Dec 17 01:40:18.382294 2024] [mpm_event:notice] [pid 1586:tid 133444277983104] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations
[Tue Dec 17 01:40:18.382378 2024] [core:notice] [pid 1586:tid 133444277983104] AH00094: Command line: '/usr/sbin/apache2'
[Tue Dec 17 02:50:37.066910 2024] [mpm_event:notice] [pid 1586:tid 133444277983104] AH00492: caught SIGWINCH, shutting down gracefully
[Tue Dec 17 02:50:37.125393 2024] [mpm_event:notice] [pid 2246:tid 134235753240448] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations
[Tue Dec 17 02:50:37.125474 2024] [core:notice] [pid 2246:tid 134235753240448] AH00094: Command line: '/usr/sbin/apache2'
[Tue Dec 17 02:50:49.354583 2024] [mpm_event:notice] [pid 2246:tid 134235753240448] AH00492: caught SIGWINCH, shutting down gracefully
[Tue Dec 17 02:50:59.568591 2024] [mpm_event:notice] [pid 2322:tid 137472112052096] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations
[Tue Dec 17 02:50:59.568686 2024] [core:notice] [pid 2322:tid 137472112052096] AH00094: Command line: '/usr/sbin/apache2'
[Tue Dec 17 03:03:49.466021 2024] [mpm_event:notice] [pid 2322:tid 137472112052096] AH00492: caught SIGWINCH, shutting down gracefully
[Tue Dec 17 03:17:56.975377 2024] [mpm_event:notice] [pid 931:tid 133054993631104] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations
[Tue Dec 17 03:17:56.976228 2024] [core:notice] [pid 931:tid 133054993631104] AH00094: Command line: '/usr/sbin/apache2'
[Tue Dec 17 04:02:57.380550 2024] [mpm_event:notice] [pid 931:tid 133054993631104] AH00492: caught SIGWINCH, shutting down gracefully
[Tue Dec 17 04:02:57.441339 2024] [mpm_event:notice] [pid 1522:tid 136811302082432] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations
[Tue Dec 17 04:02:57.441415 2024] [core:notice] [pid 1522:tid 136811302082432] AH00094: Command line: '/usr/sbin/apache2'
[Tue Dec 17 04:13:42.444414 2024] [mpm_event:notice] [pid 932:tid 124706628646784] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations
[Tue Dec 17 04:13:42.445287 2024] [core:notice] [pid 932:tid 124706628646784] AH00094: Command line: '/usr/sbin/apache2'
[Tue Dec 17 04:19:25.150687 2024] [mpm_event:notice] [pid 932:tid 124706628646784] AH00492: caught SIGWINCH, shutting down gracefully
[Tue Dec 17 04:46:18.845782 2024] [mpm_event:notice] [pid 928:tid 134004471527296] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations
[Tue Dec 17 04:46:18.847221 2024] [core:notice] [pid 928:tid 134004471527296] AH00094: Command line: '/usr/sbin/apache2'
webmaster@webserver:~$
```

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.