

Deliverable 2 Submission

Server Specifications

Virtual Machine 105 (ubuntu-server) on node 'spruce' No Tags

Start

Shutdown

Console

More

Help

Summary

Console

Hardware

Cloud-Init

Options

Task History

Monitor

Backup

Replication

Snapshots

Firewall

Permissions

Add

Remove

Edit

Disk Action

Revert

Memory	2.00 GiB
Processors	2 (1 sockets, 2 cores) [x86-64-v2-AES]
BIOS	Default (SeaBIOS)
Display	Default
Machine	Default (i440fx)
SCSI Controller	VirtIO SCSI single
Hard Disk (scsi0)	local-lvm:vm-105-disk-0,ioread=1,size=15G
Network Device (net0)	rtl8139=BC:24:11:C5:3E:43,bridge=vmb0,firewall=1

Ubuntu Login Screen

```
Ubuntu 24.04.1 LTS webserver tty1
webserver login: webmaster
Password:
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-49-generic x86_64)

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

System information as of Mon Dec  2 03:55:43 AM UTC 2024

System load:          0.0
Usage of /:            44.8% of 9.75GB
Memory usage:         9%
Swap usage:           0%
Processes:            103
Users logged in:      0
IPv4 address for ens18: 192.168.69.111
IPv6 address for ens18: fd7f:a252:2312:2517:be24:11ff:fec5:3e43

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:~$ _
```

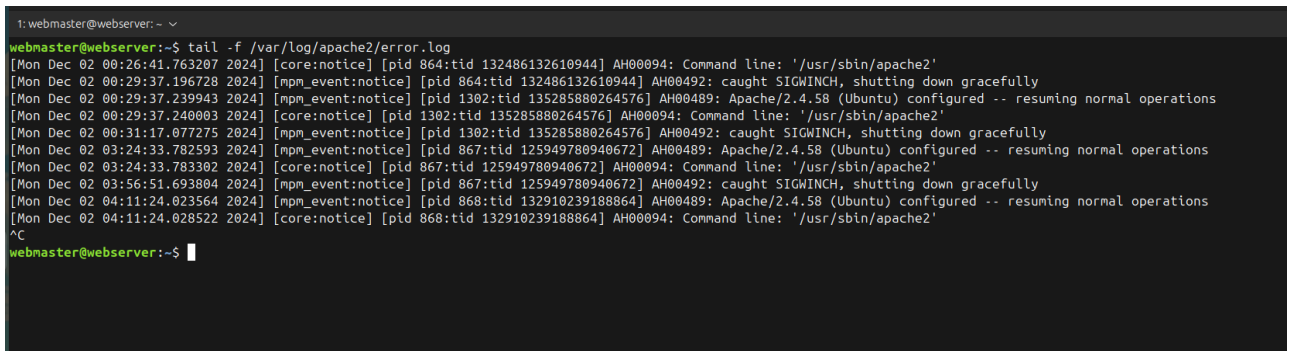
Questions

- 3. What is the IP address of your Ubuntu Server Virtual Machine? 192.168.69.111
- 4. How do you enable the Ubuntu Firewall? sudo ufw enable/allow
- 5. How do you check if the Ubuntu Firewall is running? sudo ufw status
- 6. How do you disable the Ubuntu Firewall? sudo ufw disable

7. **How do you add Apache to the Firewall?** `sudo ufw allow 'Apache'`
8. **What is the command you used to install Apache?** `sudo apt install apache2 -y`
9. **What is the command you use to check if Apache is running?** `systemctl status apache2 --no-pager`
10. **What is the command you use to stop Apache?** `sudo systemctl stop apache2`
11. **What is the command you use to restart Apache?** `sudo systemctl restart apache2`
12. **What is the command used to test Apache configuration?** `sudo apache2ctl configtest`
13. **What is the command used to check the installed version of Apache?** `apache2 -v`
14. **What are the most common commands to troubleshoot Apache errors? Provide a brief description of each command.** `sudo apache2ctl configtest`: This command checks the Apache configuration files for syntax errors. It's useful to run after making changes to the configuration to ensure there are no mistakes.

`apache2ctl -t`: Similar to the configtest command, this tests the configuration files for any errors without starting or restarting the server.

`systemctl status apache2`: This command shows the current status of the Apache service, including whether it is running, stopped, or encountered any issues.
15. **Which are Apache Log Files, and what are they used for? Provide examples and screenshots.**
Apache logs are stored within `/var/log/apache2/error.log`. This log is used for monitoring and troubleshooting your apache web server. The purpose is to record specific information about the server's operations like requests, errors and etc.



```
1: webmaster@webserver: ~  
webmaster@webserver:~$ tail -f /var/log/apache2/error.log  
[Mon Dec 02 00:26:41.763297 2024] [core:notice] [pid 864:tid 132486132610944] AH00094: Command line: '/usr/sbin/apache2'  
[Mon Dec 02 00:29:37.196728 2024] [mpm_event:notice] [pid 864:tid 132486132610944] AH00492: caught SIGWINCH, shutting down gracefully  
[Mon Dec 02 00:29:37.239943 2024] [mpm_event:notice] [pid 1302:tid 135285880264576] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations  
[Mon Dec 02 00:29:37.240093 2024] [core:notice] [pid 1302:tid 135285880264576] AH00094: Command line: '/usr/sbin/apache2'  
[Mon Dec 02 00:31:17.077275 2024] [mpm_event:notice] [pid 1302:tid 135285880264576] AH00492: caught SIGWINCH, shutting down gracefully  
[Mon Dec 02 03:24:33.782593 2024] [mpm_event:notice] [pid 867:tid 125949780940672] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations  
[Mon Dec 02 03:24:33.783302 2024] [core:notice] [pid 867:tid 125949780940672] AH00094: Command line: '/usr/sbin/apache2'  
[Mon Dec 02 03:56:51.693804 2024] [mpm_event:notice] [pid 867:tid 125949780940672] AH00492: caught SIGWINCH, shutting down gracefully  
[Mon Dec 02 04:11:24.023564 2024] [mpm_event:notice] [pid 868:tid 132910239188864] AH00489: Apache/2.4.58 (Ubuntu) configured -- resuming normal operations  
[Mon Dec 02 04:11:24.028522 2024] [core:notice] [pid 868:tid 132910239188864] AH00094: Command line: '/usr/sbin/apache2'  
^C  
webmaster@webserver:~$
```