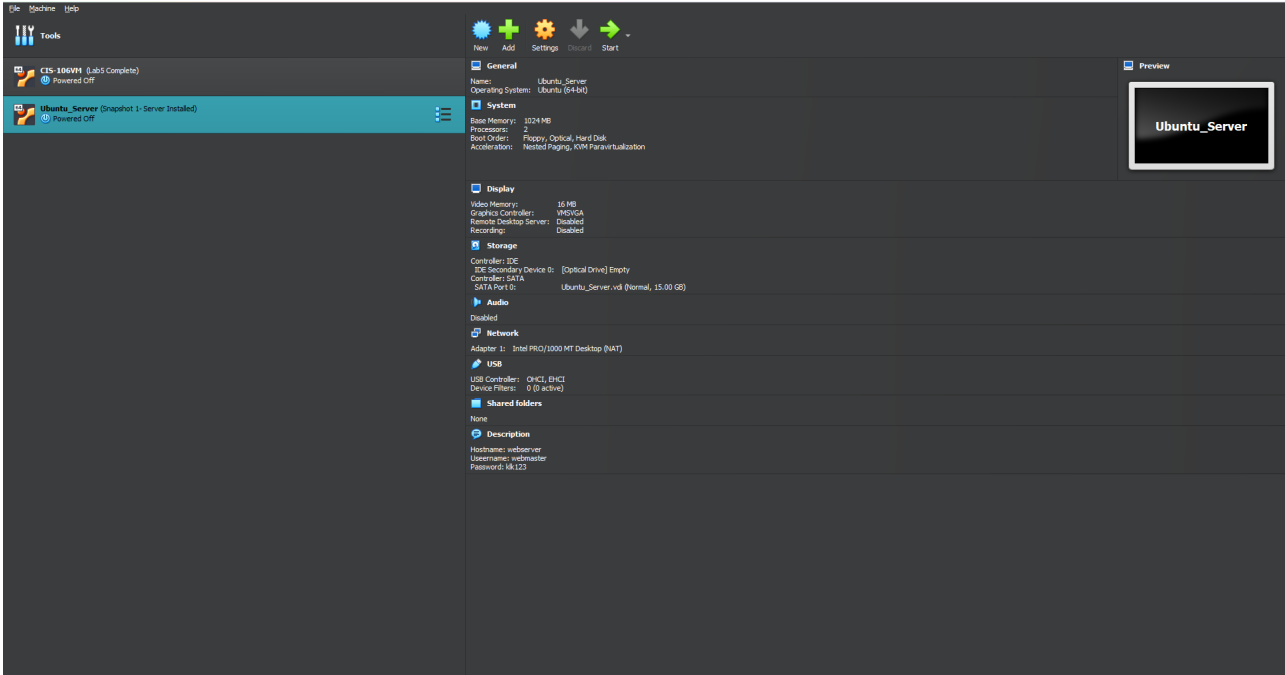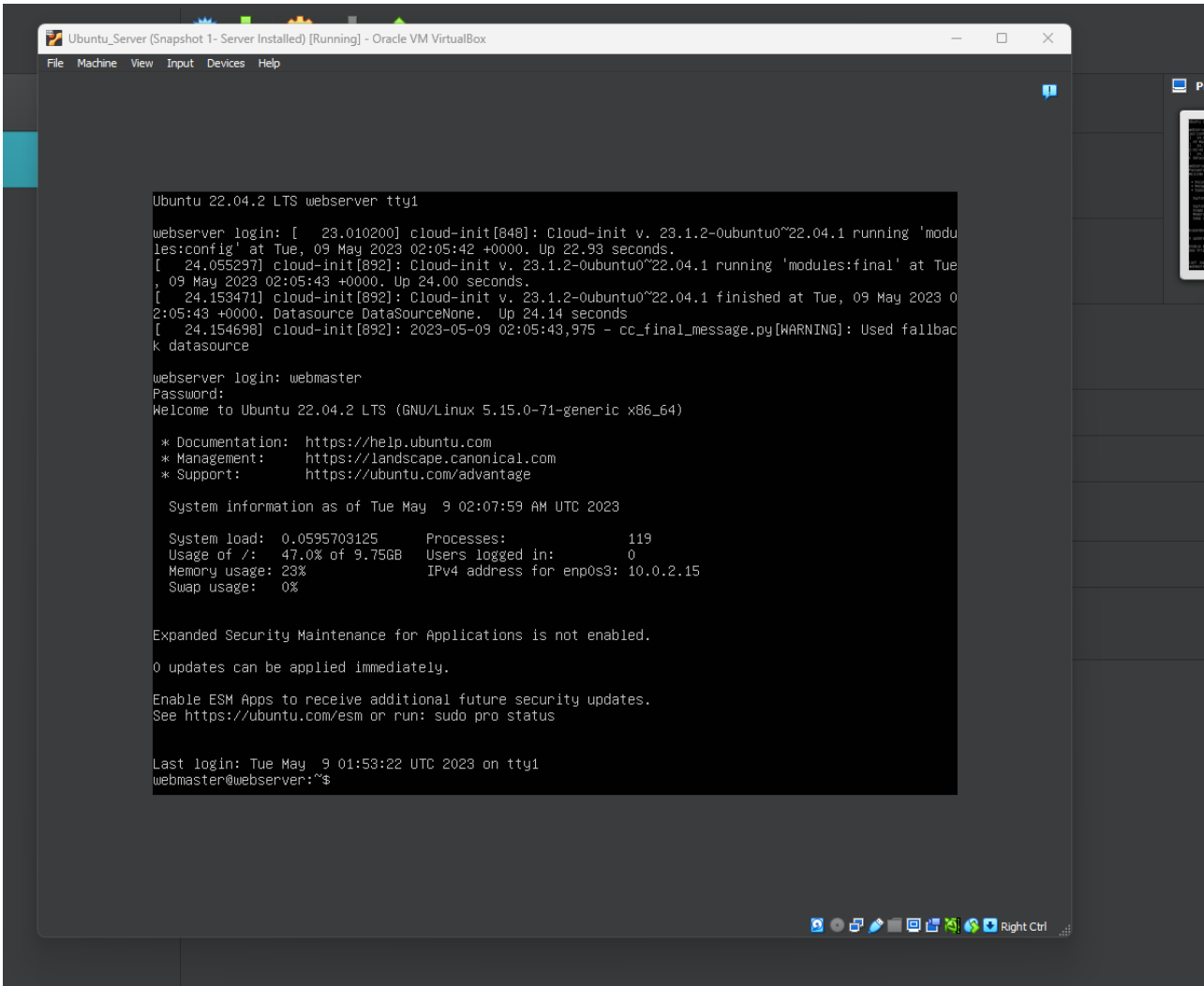# Deliverable 2

1. My VM settings.

2. Screen after login.

3. Using ssh-login

```
jybaez@CIS-106VM:~$ ssh webmaster@webserver
webmaster@webserver's password:
Welcome to Ubuntu 22.04.2 LTS (GNU/Linux 5.15.0-71-generic x86_64)

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

  System information as of Tue May  9 04:36:48 AM UTC 2023

  System load:            0.0
  Usage of /:             48.1% of 9.75GB
  Memory usage:           27%
  Swap usage:             0%
  Processes:              119
  Users logged in:        1
  IPv4 address for enp0s3: 192.168.1.196
  IPv6 address for enp0s3: 2600:4040:af7a:3200:a00:27ff:fefa:c491
```

4. Systemctl status apache 2 --no-pager command

```
webmaster@webserver:~$ systemctl status apache2 --no-pager
● apache2.service - The Apache HTTP Server
     Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
     Active: active (running) since Tue 2023-05-09 04:12:35 UTC; 26min ago
       Docs: https://httpd.apache.org/docs/2.4/
   Main PID: 788 (apache2)
      Tasks: 55 (limit: 1026)
     Memory: 9.0M
        CPU: 362ms
     CGroup: /system.slice/apache2.service
             ├─788 /usr/sbin/apache2 -k start
             ├─789 /usr/sbin/apache2 -k start
             └─790 /usr/sbin/apache2 -k start

May 09 04:12:35 webserver systemd[1]: Starting The Apache HTTP Server...
May 09 04:12:35 webserver systemd[1]: Started The Apache HTTP Server.
webmaster@webserver:~$
```

- Systemctl status sshd --no-pager command

```
webmaster@webserver:~$ systemctl status sshd --no-pager
● ssh.service - OpenBSD Secure Shell server
     Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)
     Active: active (running) since Tue 2023-05-09 04:12:36 UTC; 27min ago
       Docs: man:sshd(8)
             man:sshd_config(5)
   Main PID: 784 (sshd)
      Tasks: 1 (limit: 1026)
     Memory: 6.9M
        CPU: 220ms
     CGroup: /system.slice/ssh.service
             └─784 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"

May 09 04:12:35 webserver systemd[1]: Starting OpenBSD Secure Shell server...
May 09 04:12:36 webserver sshd[784]: Server listening on 0.0.0.0 port 22.
May 09 04:12:36 webserver sshd[784]: Server listening on :: port 22.
May 09 04:12:36 webserver systemd[1]: Started OpenBSD Secure Shell server.
May 09 04:13:15 webserver sshd[1115]: Accepted password for webmaster from 192.168.1… ssh2
May 09 04:13:15 webserver sshd[1115]: pam_unix(sshd:session): session opened for use…id=0)
May 09 04:36:48 webserver sshd[1509]: Accepted password for webmaster from 192.168.1… ssh2
May 09 04:36:48 webserver sshd[1509]: pam_unix(sshd:session): session opened for use…id=0)
Hint: Some lines were ellipsized, use -l to show in full.
webmaster@webserver:~$
```

- Systemctl status ufw --no-pager command

```
webmaster@webserver:~$ systemctl status ufw --no-pager
● ufw.service - Uncomplicated firewall
     Loaded: loaded (/lib/systemd/system/ufw.service; enabled; vendor preset: enabled)
     Active: active (exited) since Tue 2023-05-09 04:12:31 UTC; 28min ago
       Docs: man:ufw(8)
   Main PID: 577 (code=exited, status=0/SUCCESS)
        CPU: 138ms

May 09 04:12:31 webserver systemd[1]: Starting Uncomplicated firewall...
May 09 04:12:31 webserver systemd[1]: Finished Uncomplicated firewall.
webmaster@webserver:~$
```

5. Apache access logs

```
webmaster@webserver:~$ tail /var/log/apache2/access.log
192.168.1.197 - - [09/May/2023:04:17:31 +0000] "GET /assets/img/about/1.jpg HTTP/1.1" 200 19956 "http://
192.168.1.196/" "Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:109.0) Gecko/20100101 Firefox/112.0"
192.168.1.197 - - [09/May/2023:04:17:31 +0000] "GET /assets/img/team/1.jpg HTTP/1.1" 200 40626 "http://1
92.168.1.196/" "Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:109.0) Gecko/20100101 Firefox/112.0"
192.168.1.197 - - [09/May/2023:04:17:31 +0000] "GET /assets/img/team/2.jpg HTTP/1.1" 200 61355 "http://1
92.168.1.196/" "Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:109.0) Gecko/20100101 Firefox/112.0"
192.168.1.197 - - [09/May/2023:04:17:31 +0000] "GET /assets/img/about/4.jpg HTTP/1.1" 200 16463 "http://
192.168.1.196/" "Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:109.0) Gecko/20100101 Firefox/112.0"
192.168.1.197 - - [09/May/2023:04:17:31 +0000] "GET /assets/img/about/3.jpg HTTP/1.1" 200 18317 "http://
192.168.1.196/" "Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:109.0) Gecko/20100101 Firefox/112.0"
192.168.1.197 - - [09/May/2023:04:17:31 +0000] "GET /assets/img/about/2.jpg HTTP/1.1" 200 10475 "http://
192.168.1.196/" "Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:109.0) Gecko/20100101 Firefox/112.0"
192.168.1.197 - - [09/May/2023:04:17:32 +0000] "GET /assets/img/team/3.jpg HTTP/1.1" 200 58013 "http://1
92.168.1.196/" "Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:109.0) Gecko/20100101 Firefox/112.0"
192.168.1.197 - - [09/May/2023:04:17:32 +0000] "GET /assets/img/header-bg.jpg HTTP/1.1" 200 238607 "http
://192.168.1.196/css/styles.css" "Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:109.0) Gecko/20100101 Firef
ox/112.0"
192.168.1.197 - - [09/May/2023:04:17:32 +0000] "GET /assets/img/map-image.png HTTP/1.1" 200 364327 "http
://192.168.1.196/css/styles.css" "Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:109.0) Gecko/20100101 Firef
ox/112.0"
192.168.1.197 - - [09/May/2023:04:17:32 +0000] "GET /assets/favicon.ico HTTP/1.1" 200 23764 "http://192.
168.1.196/" "Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:109.0) Gecko/20100101 Firefox/112.0"
```

- Apache error logs

```
webmaster@webserver:~$ tail /var/log/apache2/error.log
[Tue May 09 03:57:31.910222 2023] [core:notice] [pid 1808:tid 139890021078912] AH00094: Command line: '/
usr/sbin/apache2'
[Tue May 09 04:01:30.108451 2023] [mpm_event:notice] [pid 1808:tid 139890021078912] AH00493: SIGUSR1 rec
eived.  Doing graceful restart
[Tue May 09 04:01:30.119683 2023] [mpm_event:notice] [pid 1808:tid 139890021078912] AH00489: Apache/2.4.
52 (Ubuntu) configured -- resuming normal operations
[Tue May 09 04:01:30.119710 2023] [core:notice] [pid 1808:tid 139890021078912] AH00094: Command line: '/
usr/sbin/apache2'
[Tue May 09 04:01:34.491277 2023] [mpm_event:notice] [pid 1808:tid 139890021078912] AH00492: caught SIGW
INCH, shutting down gracefully
[Tue May 09 04:01:34.582221 2023] [mpm_event:notice] [pid 1963:tid 140034483722112] AH00489: Apache/2.4.
52 (Ubuntu) configured -- resuming normal operations
[Tue May 09 04:01:34.582500 2023] [core:notice] [pid 1963:tid 140034483722112] AH00094: Command line: '/
usr/sbin/apache2'
[Tue May 09 04:02:23.409273 2023] [mpm_event:notice] [pid 1963:tid 140034483722112] AH00492: caught SIGW
INCH, shutting down gracefully
[Tue May 09 04:12:35.970726 2023] [mpm_event:notice] [pid 788:tid 140561370298240] AH00489: Apache/2.4.5
2 (Ubuntu) configured -- resuming normal operations
[Tue May 09 04:12:35.972343 2023] [core:notice] [pid 788:tid 140561370298240] AH00094: Command line: '/u
sr/sbin/apache2'
webmaster@webserver:~$
```

- SSH authorization logs

```
May  9 04:17:28 webserver sudo: pam_unix(sudo:session): session closed for user root
May  9 04:36:34 webserver sshd[1161]: Received disconnect from 192.168.1.197 port 60698:11: disconnected
 by user
May  9 04:36:34 webserver sshd[1161]: Disconnected from user webmaster 192.168.1.197 port 60698
May  9 04:36:34 webserver sshd[1115]: pam_unix(sshd:session): session closed for user webmaster
May  9 04:36:34 webserver systemd-logind[726]: Session 3 logged out. Waiting for processes to exit.
May  9 04:36:34 webserver systemd-logind[726]: Removed session 3.
May  9 04:36:48 webserver sshd[1509]: Accepted password for webmaster from 192.168.1.197 port 43314 ssh2
May  9 04:36:48 webserver sshd[1509]: pam_unix(sshd:session): session opened for user webmaster(uid=1000
) by (uid=0)
May  9 04:36:48 webserver systemd-logind[726]: New session 5 of user webmaster.
May  9 05:16:27 webserver sudo: webmaster : TTY=pts/0 ; PWD=/home/webmaster ; USER=root ; COMMAND=/usr/b
in/tail /var/log/auth.log
```
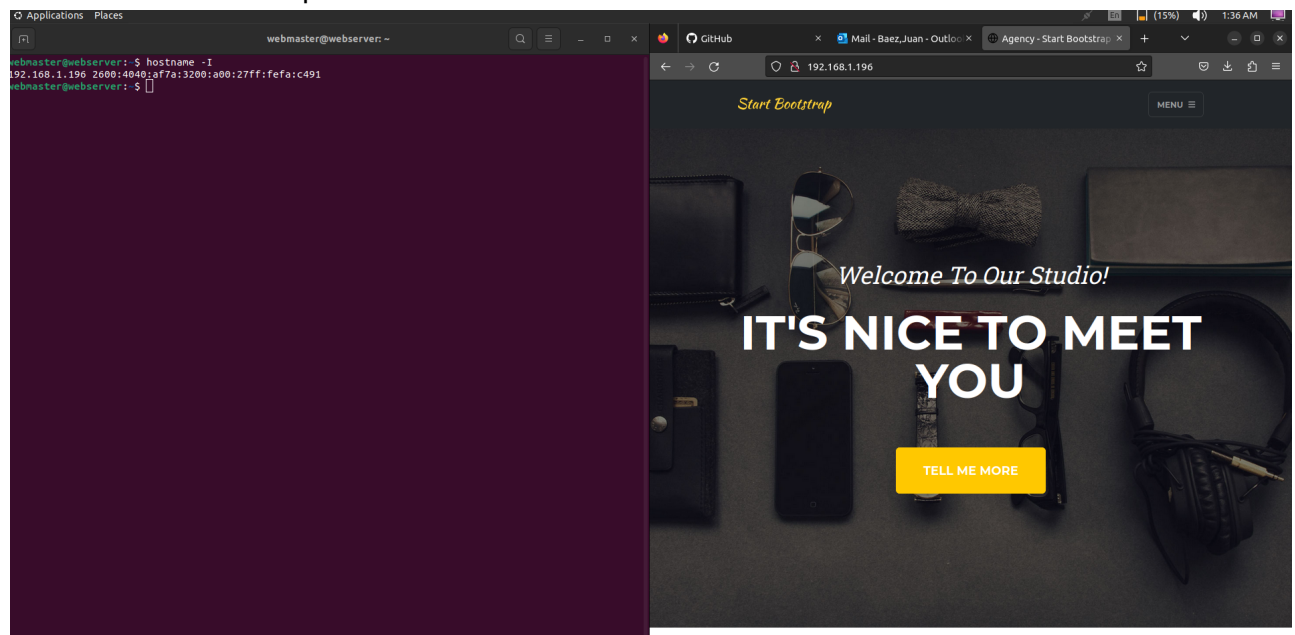
6. Site-available config file

```
  GNU nano 6.2                     /etc/apache2/sites-available/website.conf
<VirtualHost *:80>
    ServerAdmin webmaster@localhost
    ServerName website
    ServerAlias www.website
    DocumentRoot /var/www/website
    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined
</VirtualHost>
```

- Apache2.conf


```
GNU nano 6.2                              /etc/apache2/apache2.conf
# This is the main Apache server configuration file.  It contains the
# configuration directives that give the server its instructions.
# See http://httpd.apache.org/docs/2.4/ for detailed information about
# the directives and /usr/share/doc/apache2/README.Debian about Debian specific
# hints.
#
#
# Summary of how the Apache 2 configuration works in Debian:
# The Apache 2 web server configuration in Debian is quite different to
# upstream's suggested way to configure the web server. This is because Debian's
# default Apache2 installation attempts to make adding and removing modules,
# virtual hosts, and extra configuration directives as flexible as possible, in
# order to make automating the changes and administering the server as easy as
# possible.
#
# It is split into several files forming the configuration hierarchy outlined
# below, all located in the /etc/apache2/ directory:
#
#        /etc/apache2/
#        |-- apache2.conf
#        |       `--  ports.conf
#        |-- mods-enabled
#        |       |-- *.load
#        |       `-- *.conf
#        |-- conf-enabled
#        |       `-- *.conf
#        `-- sites-enabled
#                `-- *.conf
```

7. Accessed website and Ip address