- how to find ip of a domain?

= host google.com

- how to find router ip assigned by the ISP?

= curl ifconfig.m

- how to find private ip of host machine?

= ip a / ifconfig

- how to change private ip of a ubuntu machine?

= sudo vi /etc/netplan/static.yaml

Added below text

network:

  ethernets:

    enp0s3:

      dhcp4: false

      addresses: [192.168.31.220/24]

      gateway4: 192.168.31.1

      nameservers:

        addresses: [8.8.8.8, 8.8.4.4]

Then

= sudo netplan apply

- check ports open in the current system?

= sudo ss -ltnp


```
sian@myserver:~$ sudo ss -ltnp
State     Recv-Q    Send-Q        Local Address:Port      Peer Address:Port     Process
LISTEN    0         4096          127.0.0.53%lo:53             0.0.0.0:*         users:(("systemd-resolve",pid=632,fd=14))
LISTEN    0         128                 0.0.0.0:22            0.0.0.0:*         users:(("sshd",pid=701,fd=3))
LISTEN    0         128               127.0.0.1:6011           0.0.0.0:*         users:(("sshd",pid=2160,fd=9))
LISTEN    0         128                   [::]:22                [::]:*         users:(("sshd",pid=701,fd=4))
LISTEN    0         128                   [::1]:6011             [::]:*         users:(("sshd",pid=2160,fd=7))
sian@myserver:~$
```

- enable port 80 and 3306 in vm

= sudo ufw allow 80

```
sian@myserver:~$ sudo ufw allow 80
Rule added
Rule added (v6)
sian@myserver:~$ sudo ufw allow 3306
Rule added
Rule added (v6)
sian@myserver:~$ sudo ufw status
Status: active

To                         Action       From
--                         ------       ----
22                         ALLOW        Anywhere
80                         ALLOW        Anywhere
3306                       ALLOW        Anywhere
22 (v6)                    ALLOW        Anywhere (v6)
80 (v6)                    ALLOW        Anywhere (v6)
3306 (v6)                  ALLOW        Anywhere (v6)
```

- download any file or software using terminal

= wget https://www.swsumon.com/sumon.pdf

```
sian@myserver:~$ wget https://www.swsumon.com/sumon.pdf
--2023-10-21 01:46:25--  https://www.swsumon.com/sumon.pdf
Resolving www.swsumon.com (www.swsumon.com)... 64.188.12.43
Connecting to www.swsumon.com (www.swsumon.com)|64.188.12.43|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 203649 (199K) [application/pdf]
Saving to: 'sumon.pdf'

sumon.pdf                100%[===================================================>] 198.88K   217KB/s    in 0.9s

2023-10-21 01:46:27 (217 KB/s) - 'sumon.pdf' saved [203649/203649]

sian@myserver:~$
```

- get web data response from terminal

= curl www.swsumon.com

```
sian@myserver:~$ curl www.swsumon.com

<!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="UTF-8">
        <!-- Required meta tags -->
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
        <meta http-equiv="X-UA-Compatible" content="IE=edge">
        <link rel="icon" href="images/favicon.png" type="image/png">

        <title>Sumon | Web Developer | Laravel Developer in Bangladesh</title>
        <meta name="description" content="I am a Web Developer who fell in love with programming. I have wide knowledge in html, css, js
, JQuery, php, mysql, wordpress, laravel, git, I live in Dhaka, Bangladesh">

        <meta name="keywords" content="sumon, sumon islam, web developer, web design, web, developer, laravel, laravel developer,php, php
 developer, python, python developer, msicse, sumonislamcse, web developer in Bangladesh, web developer in Dhaka, web designer in Banglad
esh, ecommerce, ecommerce website, ">

        <meta name="author" content="Sumon Islam">
        <meta name="robots" content="index, follow" />

        <meta name="owner" content="Sumon Islam">
        <meta name="url" content="https://www.swsumon.com">

        <meta name="og:title" content="Sumon Islam | Web Developer | Laravel Developer"/>
```

- install nginx webserver in the vm and access the welcome nginx page from web browser

Welcome to nginx!

192.168.31.220

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

- create a mysql database server in vm and access it from host machine

```
root@myserver:~# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 18
Server version: 8.0.34-0ubuntu0.22.04.1 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
4 rows in set (0.01 sec)

mysql>
```
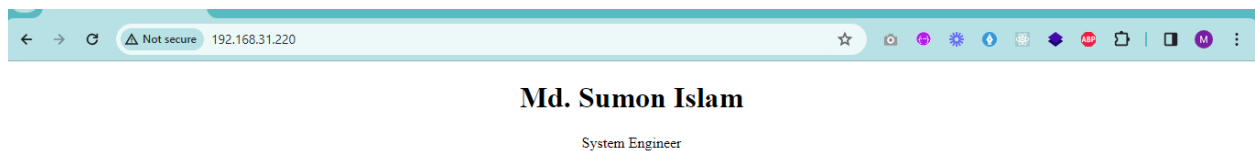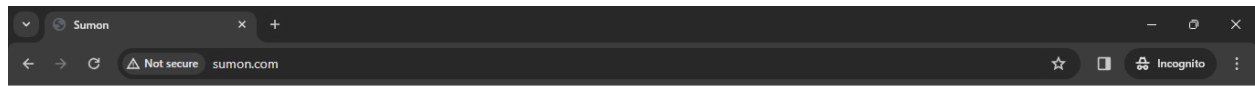
- replace default nginx page with an index.html page containing your name and access it from web browser

Md. Sumon Islam

System Engineer

- display the same index.html file in "your_name.com" by utilizing hostname of vm and host machine