

1. how to find ip of a domain?

Ans: `nslookup google.com`

2. how to find the router ip assigned by the ISP?

Ans: `curl ident.me`

3. how to find the private ip of the host machine?

Ans: `hostname -I`

4. how to change the private ip of a ubuntu machine?

Ans: By adding a static ip and gateway & off the dhcp connection with super privilege. Like, Fig:1

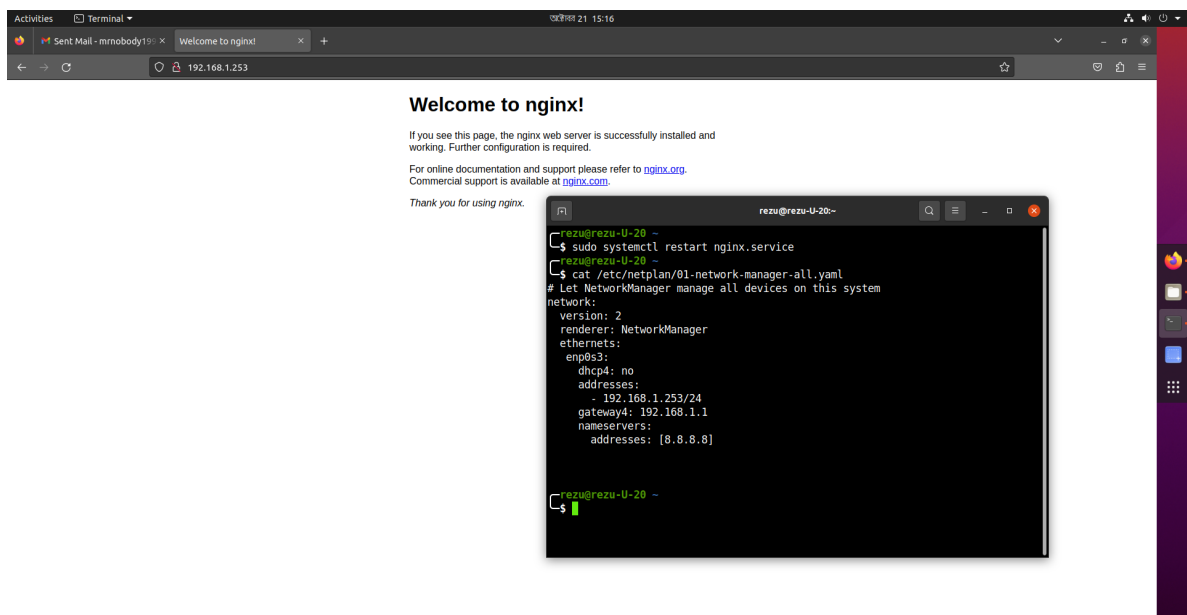


Fig-1

5. check ports open in the current system?

Ans: `sudo netstat -tulpn | grep "LISTEN"`

6. enable port 80 and 3306 in vm

Ans: `sudo ufw allow 80`

`sudo ufw allow 3306`

7. download any file or software using terminal

Ans: `wget http://www.example.com/example.txt`

8. get web data response from terminal

Ans: `curl http://www.example.com/example.txt`

9. install nginx web server in the vm and access the welcome nginx page from web browser

Ans: `sudo apt install nginx -y`

`sudo systemctl start nginx.service`

`sudo systemctl status nginx.service`

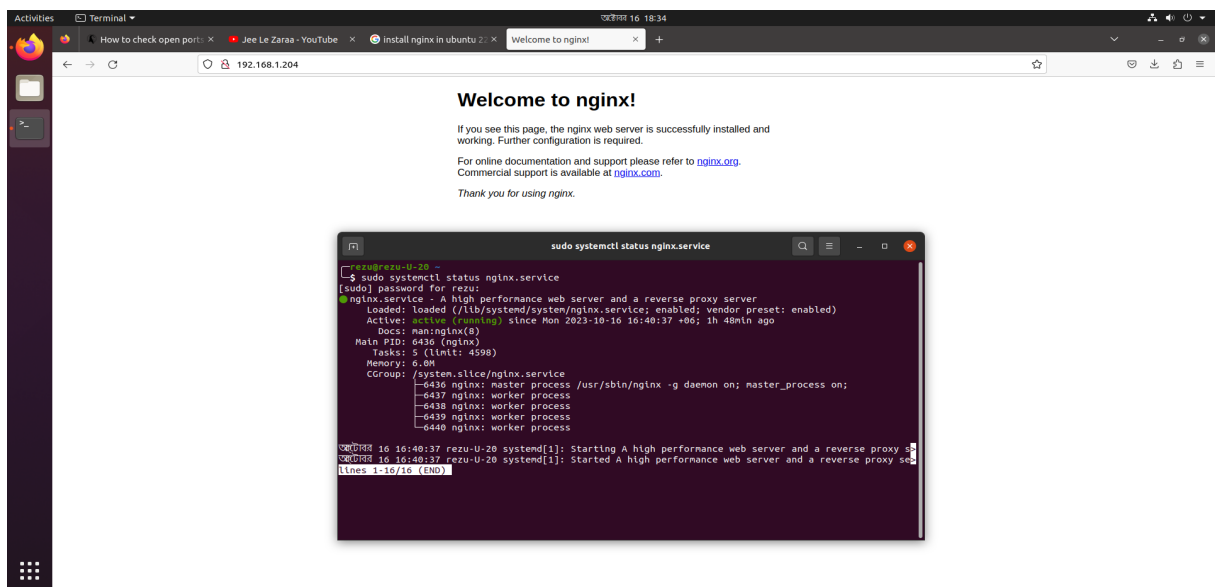


Fig-2

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

Ans:

- First install musql-server on my ubuntu VM
- Update root user password
 - `ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'password';`
- Create a new user
 - `CREATE USER 'rezu'@'%' IDENTIFIED BY 'rezuan00';`
 - `GRANT ALL ON *.* TO 'rezu'@'%';`
 - `FLUSH PRIVILEGES;`

- Edit on mysql.con.d file so that anyone can access it from outside.

- `sudo nano /etc/mysql/mysql.con.d`

- Update this line on tht file "`bind-address = 0.0.0.0`"

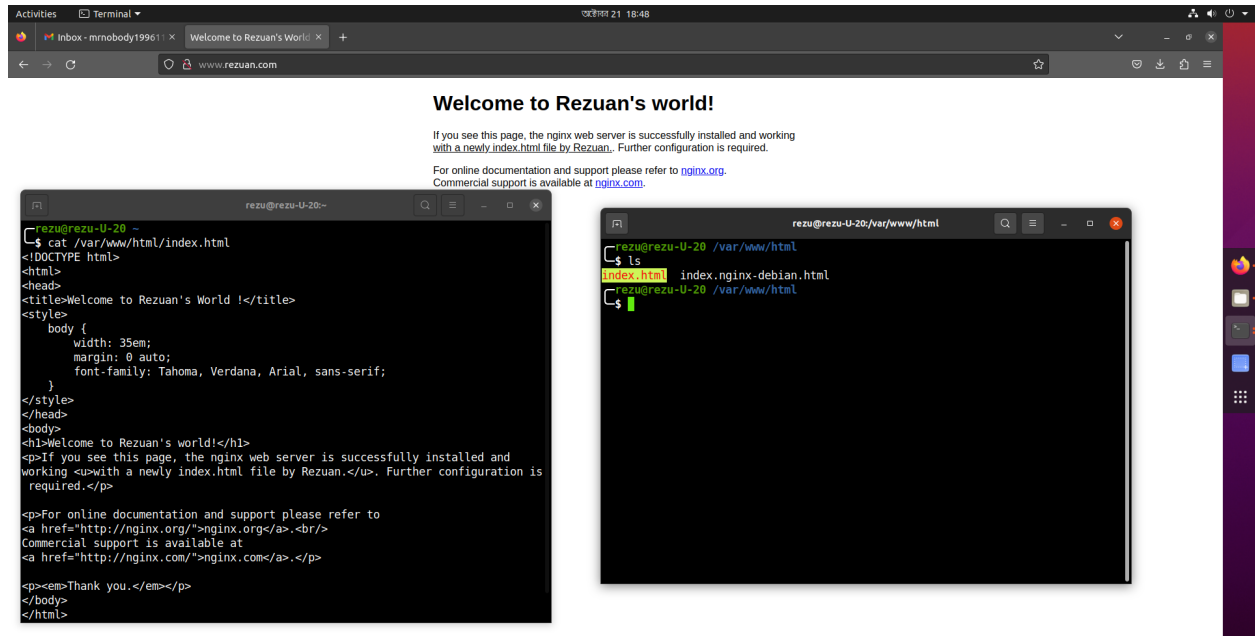


Fig-3

11. replace default nginx page with an index.html page containing your name and access it from web browser

Ans: I just go to the `"/var/www/html/"` path, copy the default nginx html file in that directory with the index.html file and edit it. Then restart the nginx server with `"sudo systemctl restart nginx.service"` command and search the ip on the browser.

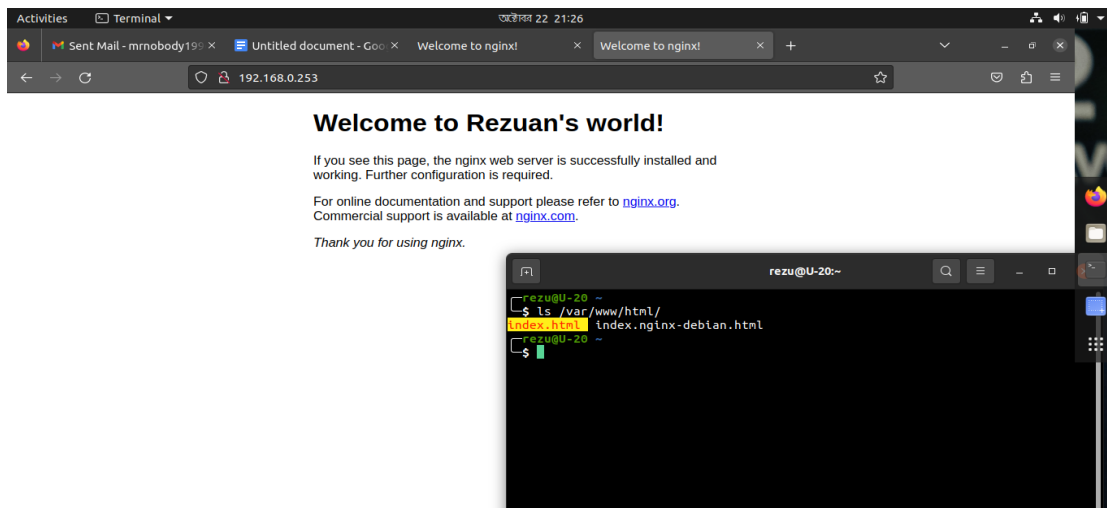


Fig-4

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

Ans: For this task I edit the `"/etc/hosts"` file with root privileges. Like add the line `192.168.0.253 www.rezuan.com`

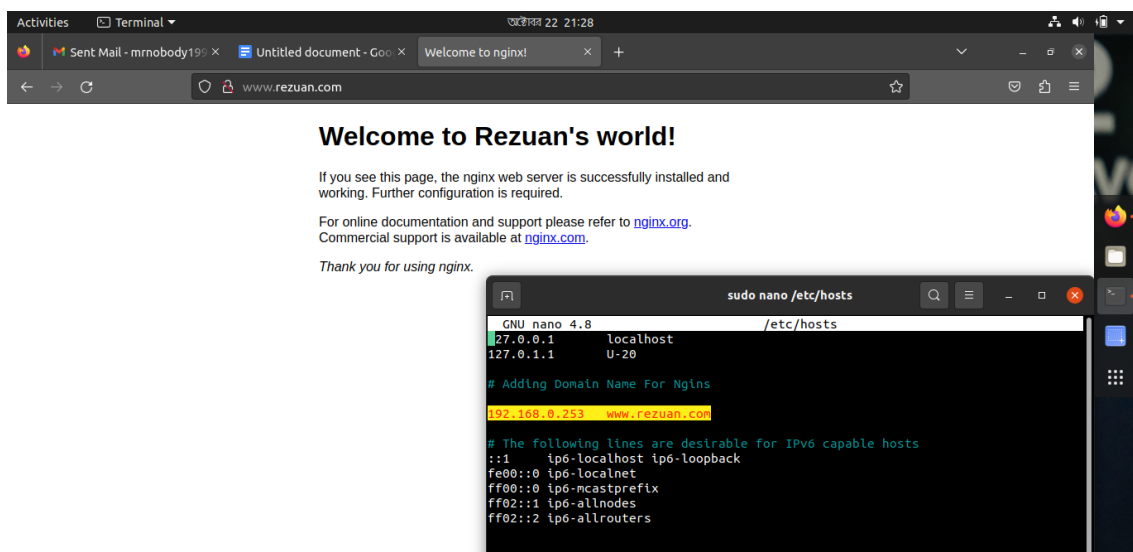


Fig-5