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To install Oracle VM virtual box and create a ubuntu linux server
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step:1

Download virtual box

step:2

Install virtual box

\* Once the download is complete run the installer and follow the instructions on your host machine

step:3

Download the ubuntu server on your machine

step4

create a new vm in virtual Box

\* click oon new button in the left top corner \* Enter the vm name \* choose the amount of RAM min 1gb \* In the harddisk create a virtual disk \* specify the size of virtual disk. \* click on create.

step 5:

configure the settings

step 6:

Install ubuntu server in vm and install it

step 7:

Access the ubuntu server through ssh

step 8:

update the packages

"'bash sudo apt update "'

step 9:

Install the nginx

"'bash sudo apt install nginx "' step 10:

 ${\bf Enable\ nginx}$ 

"'bash sudo systemctl start nginx "'

check the status of nginx

"'bash sudo systemctl status nginx "'

Now install Nmap on your host machine

"'bash sudo apt install nmap "'

To check the version of nmap

"'bash nmap -v "'

Now to scan the vm from your local machine

"'bash nmap ipaddr of vm "'

"'bash nmap 192.168.0.106/24 "'

# output

Starting Nmap 7.80 ( https://nmap.org ) at 2023-08-06 23:06 IST Nmap scan report for \_gateway (192.168.0.1) Host is up (0.056s latency). Not shown: 998 closed ports PORT STATE SERVICE 80/tcp open http 52869/tcp open unknown

Nmap scan report for 192.168.0.103 Host is up  $(0.022s\ latency)$ . All  $1000\ scanned\ ports$  on 192.168.0.103 are closed

Nmap scan report for 192.168.0.106 Host is up (0.000089s latency). Not shown: 998 closed ports PORT STATE SERVICE 22/tcp open ssh 80/tcp open http

Nmap scan report for harsha (192.168.0.108) Host is up (0.000016s latency). Not shown: 998 closed ports PORT STATE SERVICE 80/tcp open http-proxy

Nmap done: 256 IP addresses (4 hosts up) scanned in 3.65 seconds