

# Networking Assignment

1. Find the IP address of a domain

```
$ nslookup domain.com
```

2. Find router IP assigned by ISP

```
$ curl ifconfig.me
```

3. Find private IP of host machine

```
$ ifconfig
```

4. Change private IP address

```
$ ifconfig <interface_name> <new_ip_address>
```

5. Check Open Ports in the Current System

```
$ netstat -nltu
```

```
nishad@darkdomain:~  
→ ~ netstat -nltu  
Active Internet connections (only servers)  
Proto Recv-Q Send-Q Local Address           Foreign Address         State  
tcp        0      0 127.0.0.1:5432          0.0.0.0:*               LISTEN  
tcp        0      0 127.0.0.53:53           0.0.0.0:*               LISTEN  
tcp        0      0 127.0.0.1:631           0.0.0.0:*               LISTEN  
tcp6       0      0 :::1:631                :::*                    LISTEN  
tcp6       0      0 :::8080                 :::*                    LISTEN  
udp        0      0 127.0.0.53:53           0.0.0.0:*                 
udp        0      0 0.0.0.0:631             0.0.0.0:*                 
udp        0      0 0.0.0.0:58151           0.0.0.0:*                 
udp        0      0 0.0.0.0:5353            0.0.0.0:*                 
udp6       0      0 :::35689                :::*                      
udp6       0      0 :::5353                 :::*                      
→ ~
```

## 6. Enable Port 80 and 3306 in a VM

```
$ sudo ufw allow 80  
$ sudo ufw allow 3306  
$ sudo ufw reload
```

```
nishad@darkdomain:~  
→ ~ sudo ufw allow 80  
[sudo] password for nishad:  
Rules updated  
Rules updated (v6)  
→ ~ sudo ufw allow 3306  
Rules updated  
Rules updated (v6)  
→ ~ sudo ufw reload  
Firewall not enabled (skipping reload)
```

## 7. Download Files or Software Using Terminal

You can download files or software from the internet using `wget` or `curl`:

```
$ wget URL
```

```
nishad@darkdomain:~
→ ~ wget https://github.com/rootusercop/Free-DevOps-Books-1/blob/master/book/The%20Linux%20Command%20Line%20-%20A%20Complete%20Introduction.pdf
--2023-10-27 21:27:51-- https://github.com/rootusercop/Free-DevOps-Books-1/blob/master/book/The%20Linux%20Command%20Line%20-%20A%20Complete%20Introduction.pdf
Resolving github.com (github.com)... 20.205.243.166
Connecting to github.com (github.com)|20.205.243.166|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 17605 (17K) [text/plain]
Saving to: 'The Linux Command Line - A Complete Introduction.pdf'

The Linux Command Line - 100%[=====] 17.19K 16.9KB/s in 1.0s

2023-10-27 21:27:54 (16.9 KB/s) - 'The Linux Command Line - A Complete Introduction.pdf' saved [17605/17605]

→ ~ ls
data      Enables   Public    Templates
Desktop   Mine     script.py 'The Linux Command Line - A Complete Introduction.pdf'
Documents Music    sed-tutorial Videos
Downloads Pictures snap
```

## 8. Get Web Data Response from Terminal

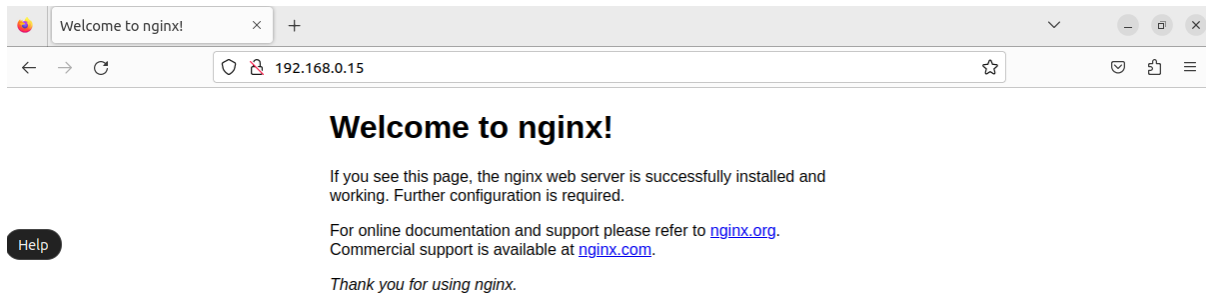
Retrieve web data and display the response using the `curl` command:

```
$ curl URL
```

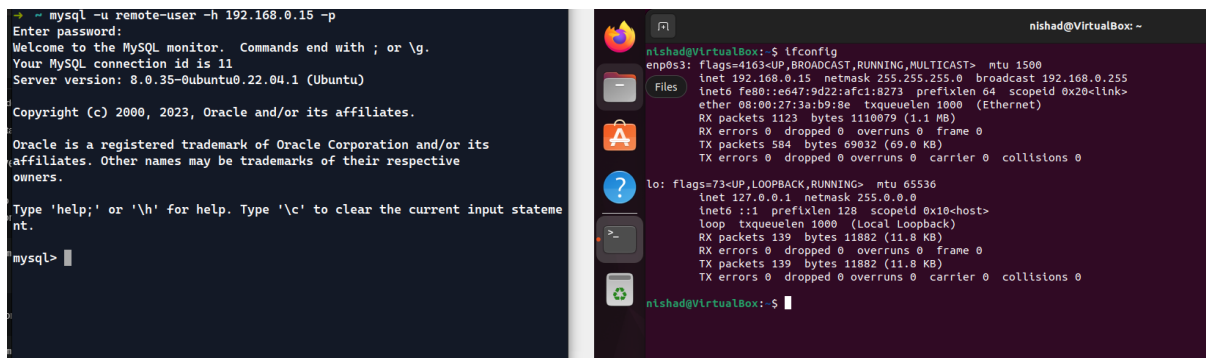
```
nishad@darkdomain:~
→ ~ curl www.google.com
<!doctype html><html itemscope="" itemtype="http://schema.org/WebPage" lang="bn"><head><meta content="text/html; charset=UTF-8" http-equiv="Content-Type"><meta content="/images/branding/google/1x/googleleg_standard_color_128dp.png" itemprop="image"><title>Google</title><script nonce="bXM_g84MFk0uATLc_Px6kw">(function(){var _g={kEI:'Ldc7ZZXSHbb02roPzqWayAU',kEXPI:'0,1365468,206,4804,2316,383,246,5,1129120,1826,1195921,380744,16114,28684,22431,1361,12311,2823,14765,4998,17075,36218,2226,2872,2891,12360,30668,30022,16105,230,20583,4,59617,4437,22607,6630,7596,1,42154,2,39761,6699,28950,2173,4567,6253,23424,1252,33064,2,2,1,23825,10962,23351,872,6578,13056,7,1922,9779,36285,6174,20198,928,19209,14,82,20206,8377,18960,5403,782,2248,11151,4665,1804,21011,5397,8861,5486,6327,1635,2170,1132,3,13206,7768,146,9631,1809,5219431,1014,2,580,21,5994364,2806525,141,795,29513,25,2,41,23,23,13,6,4,25,26,23940866,397,182,2769589,1273939,1008,15665,42664,1218,3,1562,5,542,3,1165,4,342,126,805,621,1390879,23759270,7954,1,3604,1240,8408,2880,1594,3530,6696,1965,7348,3784,376,2899,3044,876,3,6580,3117,3999,1879,53,3485,2542,4507,108,2807,2733,3790,533,291,1347,726,460,1004,298,3686,1822,2,4975,1897,2746,3,1688,969,1083,27,6,5,15,313,642,7,1,8,1456,502,574,1679,614,4,872,11,427,537,891,1000,3,83,2388,367,3849,216,1438,333,1286,970,46,264,550,265,51,260,443,833,63,3,403,327,462,2,999,19,2,1130,1119,933,31,431,305,359,197,123,236,276,448,48,81,3,69,13,322,393,17,81,2065,387,12,178,1,330,140,491,149,51,76,1664,279,47,265,1,354,302,168,990,32,104,538,84,183,1712,1221,2,857,435,32,7,266,27,4,570,812,483,449,22,131,217,345,3,492,2,1,6,1546,221,174,37,2,151,13,2,6,2,779,3,163,209,87,78,363,4,2722,6,18,894,123',kBL:'jllly',kOPI:89978449});(function(){var a;(null==(a=window.google)?0:a.s.tvc)?google.kEI=_g.kEI:window.google=_g;}).call(this);})();(function(){google.sn='webhp';google.kH='bn';})();(function(){var h=this||self;function l(){return void 0!==window.google&&void 0!==window.google.kOPI&&0!==window.google.kOPI?window.google.kOPI:null};var m,n=[];function p(a){for(var b;a&&(!a.getAttribute)||!(b=a.getAttribute("eid")));)a=a.parentNode;return b||m}function q(a){for(var b=null;a&&(!a.getAttribute)||!(b=a.getAttribute("leid")));)a=a.parentNode;return b}function r(a){/^http:\/i.test(a)&&"https:"===window.location.protocol&&(google.ml&&google.ml[5]rpx("a"),1,{src:a,glmm:1})?a="":return a}}
```

## 9. Install Nginx Web Server in a VM

```
$ sudo apt-get update
$ sudo apt-get install nginx
```



## 10. Create a MySQL Database Server in VM and Access It from Host Machine



## 11. Replace Default Nginx Page with Your Own



### Welcome to DarkDomain!

If you see this page, the nginx default page has been updated according to the requirement properly..

*Thank to the nginx for this awesome tool.*

Trash

## 12. Display the Index.html File Using a Custom Domain

```
$ sudo nano /etc/hosts
```

and add the local ip with the expected domain name

