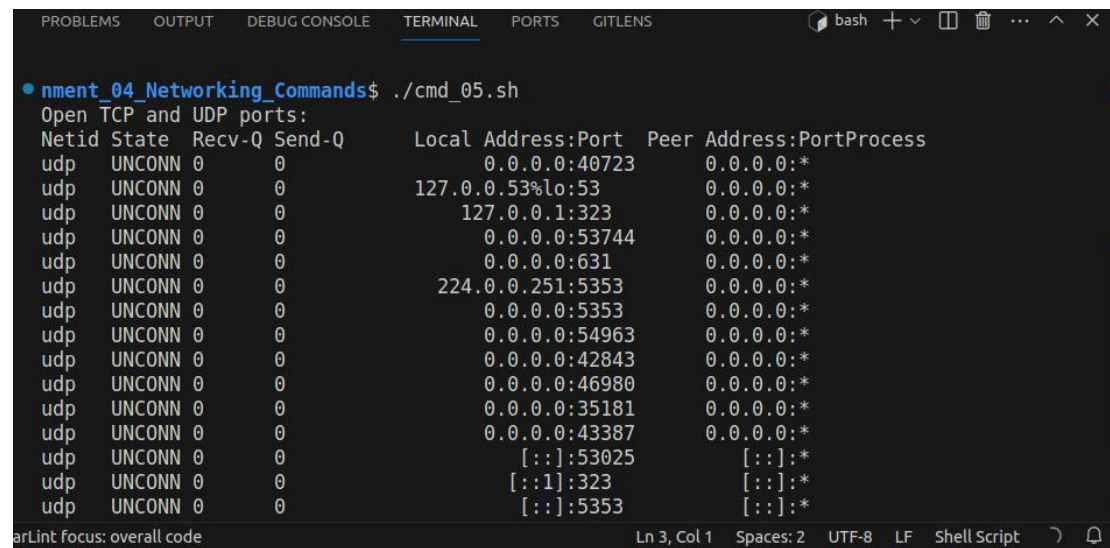
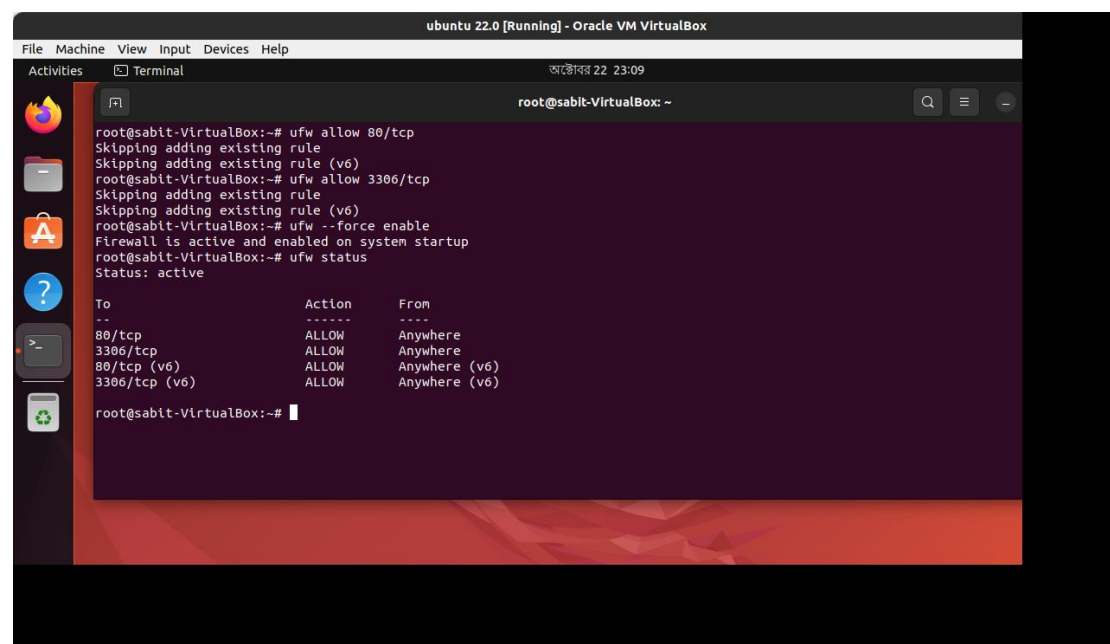


check ports open in the current system



```
• nment_04_Networking_Commands$ ./cmd_05.sh
Open TCP and UDP ports:
Netid State Recv-Q Send-Q Local Address:Port Peer Address:Port Process
udp UNCONN 0 0 0.0.0.0:40723 0.0.0.0:*
udp UNCONN 0 0 127.0.0.53:53 0.0.0.0:*
udp UNCONN 0 0 127.0.0.1:323 0.0.0.0:*
udp UNCONN 0 0 0.0.0.0:53744 0.0.0.0:*
udp UNCONN 0 0 0.0.0.0:631 0.0.0.0:*
udp UNCONN 0 0 224.0.0.251:5353 0.0.0.0:*
udp UNCONN 0 0 0.0.0.0:5353 0.0.0.0:*
udp UNCONN 0 0 0.0.0.0:54963 0.0.0.0:*
udp UNCONN 0 0 0.0.0.0:42843 0.0.0.0:*
udp UNCONN 0 0 0.0.0.0:46980 0.0.0.0:*
udp UNCONN 0 0 0.0.0.0:35181 0.0.0.0:*
udp UNCONN 0 0 0.0.0.0:43387 0.0.0.0:*
udp UNCONN 0 0 [::]:53025 [::]:*
udp UNCONN 0 0 [::1]:323 [::]:*
udp UNCONN 0 0 [::]:5353 [::]:*
```

enable port 80 and 3306 in vm

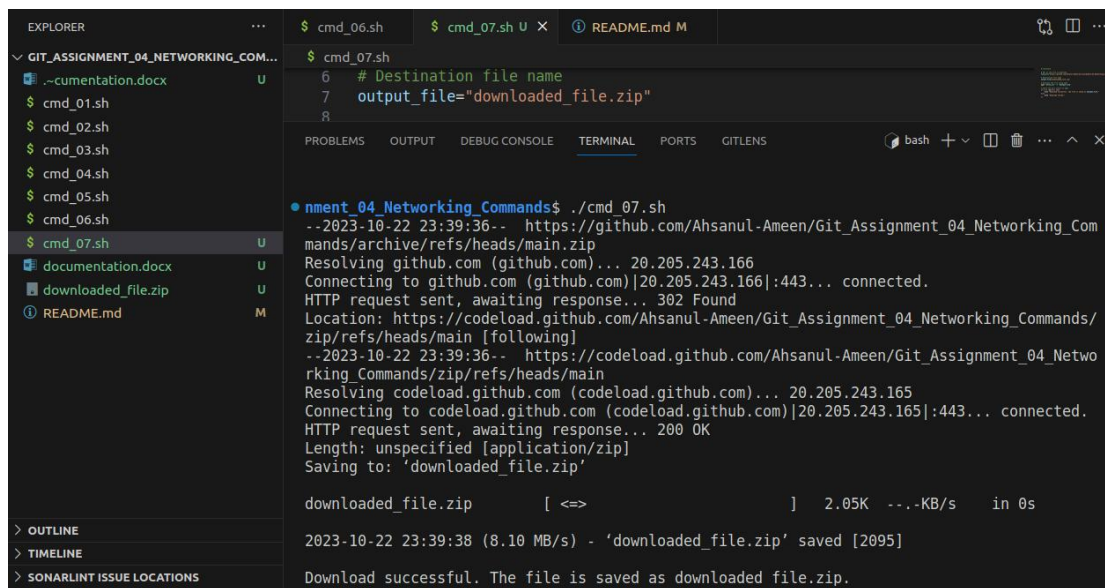


```
ubuntu 22.0 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Activities Terminal
root@sabit-VirtualBox: ~
root@sabit-VirtualBox:~# ufw allow 80/tcp
Skipping adding existing rule
Skipping adding existing rule (v6)
root@sabit-VirtualBox:~# ufw allow 3306/tcp
Skipping adding existing rule
Skipping adding existing rule (v6)
root@sabit-VirtualBox:~# ufw --force enable
Firewall is active and enabled on system startup
root@sabit-VirtualBox:~# ufw status
Status: active

To Action From
--
80/tcp ALLOW Anywhere
3306/tcp ALLOW Anywhere
80/tcp (v6) ALLOW Anywhere (v6)
3306/tcp (v6) ALLOW Anywhere (v6)

root@sabit-VirtualBox:~#
```

download any file or software using terminal



The screenshot shows the Visual Studio Code interface. On the left, the Explorer pane shows a file tree for a project named 'GIT_ASSIGNMENT_04_NETWORKING_COM...'. The file tree includes files like 'documentation.docx', 'downloaded_file.zip', and 'README.md'. The main editor area shows a terminal window with the following content:

```
$ cmd_07.sh
6 # Destination file name
7 output_file="downloaded_file.zip"
8

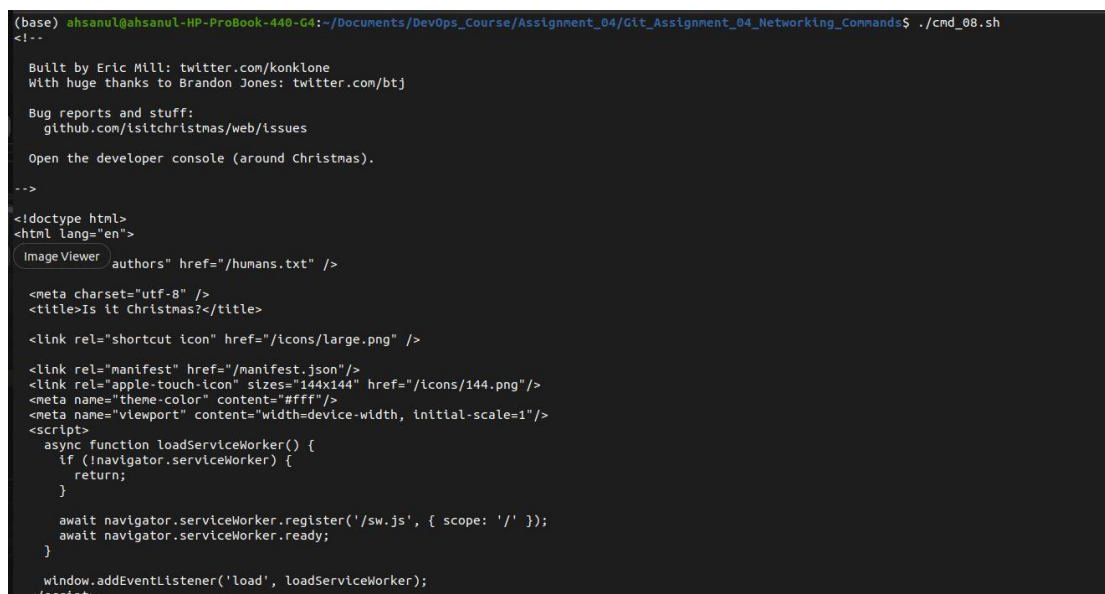
nment_04_Networking_Commands$ ./cmd_07.sh
--2023-10-22 23:39:36-- https://github.com/Ahsanul-Ameen/Git_Assignment_04_Networking_Commands/archive/refs/heads/main.zip
Resolving github.com (github.com)... 20.205.243.166
Connecting to github.com (github.com)|20.205.243.166|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://codeload.github.com/Ahsanul-Ameen/Git_Assignment_04_Networking_Commands/zip/refs/heads/main [following]
--2023-10-22 23:39:36-- https://codeload.github.com/Ahsanul-Ameen/Git_Assignment_04_Networking_Commands/zip/refs/heads/main
Resolving codeload.github.com (codeload.github.com)... 20.205.243.165
Connecting to codeload.github.com (codeload.github.com)|20.205.243.165|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: unspecified [application/zip]
Saving to: 'downloaded_file.zip'

downloaded_file.zip      [ <=>                ] 2.05K  --.-KB/s   in 0s

2023-10-22 23:39:38 (8.10 MB/s) - 'downloaded_file.zip' saved [2095]

Download successful. The file is saved as downloaded file.zip.
```

get web data response from terminal



The screenshot shows a terminal window with the following content:

```
(base) ahsanul@ahsanul-HP-ProBook-440-G4:~/Documents/DevOps_Course/Assignment_04/Git_Assignment_04_Networking_Commands$ ./cmd_08.sh
<!--
  Built by Eric Mill: twitter.com/konklone
  With huge thanks to Brandon Jones: twitter.com/btj

  Bug reports and stuff:
    github.com/isitchristmas/web/issues

  Open the developer console (around Christmas).
-->

<!doctype html>
<html lang="en">
  <img alt="Image Viewer" authors" href="/humans.txt" />

  <meta charset="utf-8" />
  <title>Is it Christmas?</title>

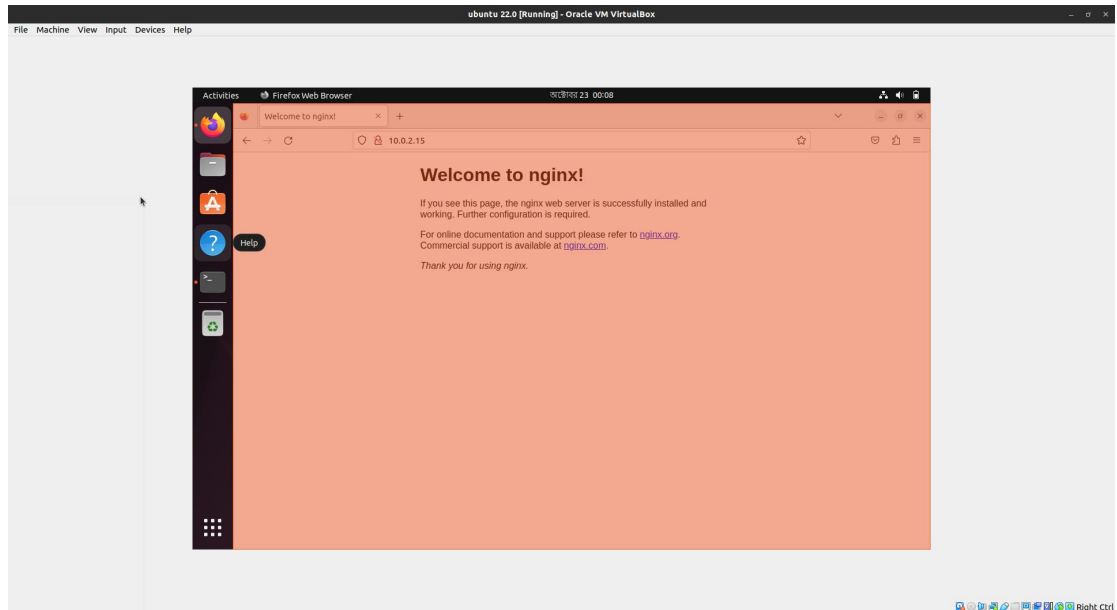
  <link rel="shortcut icon" href="/icons/large.png" />

  <link rel="manifest" href="/manifest.json"/>
  <link rel="apple-touch-icon" sizes="144x144" href="/icons/144.png"/>
  <meta name="theme-color" content="#fff"/>
  <meta name="viewport" content="width=device-width, initial-scale=1"/>
  <script>
    async function loadServiceWorker() {
      if (!navigator.serviceWorker) {
        return;
      }

      await navigator.serviceWorker.register('/sw.js', { scope: '/' });
      await navigator.serviceWorker.ready;
    }

    window.addEventListener('load', loadServiceWorker);
  </script>
```

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



create a mysql database server in vm and access it from host machine
(faced some issues with ssh when connecting from host machine, so attached from VM)

```
sabit@sabit-VirtualBox:~$ mysql -u sabit -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 14
Server version: 8.0.34-0ubuntu0.22.04.1 (Ubuntu)

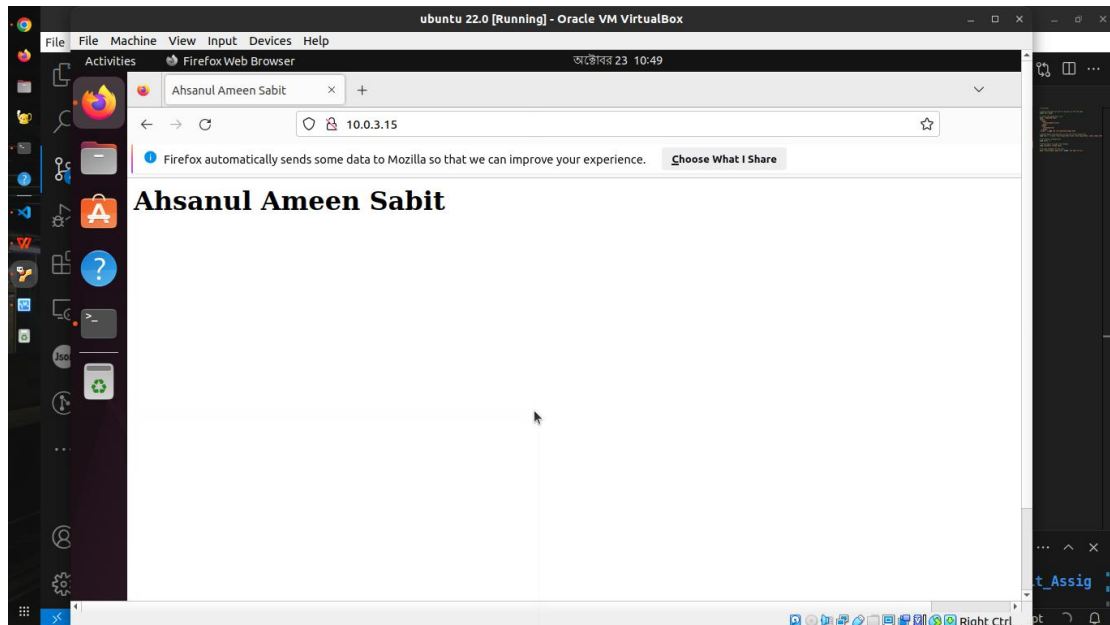
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affiliates. Other names may be trademarks of their respective
owners.

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

mysql> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
```

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



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

(issue with ssh, we need to do the same with VM IP in host machine, ping ahsanul_ameen.com)

