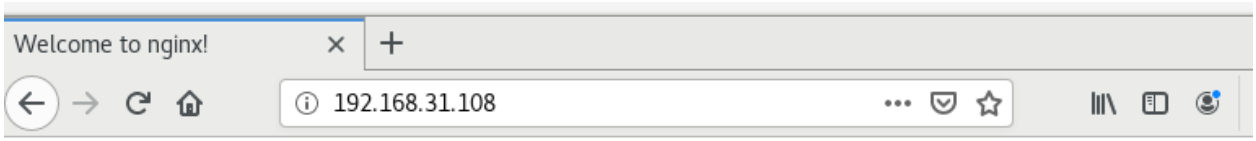
Task_1

Create 1 VM with Centos 7 operating system and install nginx.



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 an HTML page where you can connect the two sites using an iframe,

in this case, the attribute of the original iframe tag must have a link to the same resource on which the HTML file is located.

Configure Nginx to access these two sites.

As a result, send a screenshot of the config file and HTML page

Hello from main site

Hello from site2

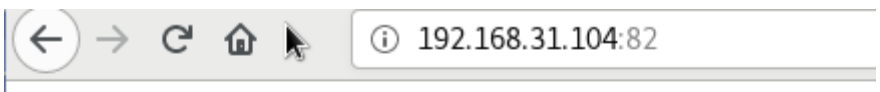
Demo site for 192.168.31.104:81

Hello from site3

Demo site for 192.168.31.104:82

Hello from site2

Demo site for 192.168.31.104:81



Hello from site3

Demo site for 192.168.31.104:82

```
server {
    listen         80 default_server;
    listen         [::]:80 default_server;
    server_name    _;
    root           /var/www/site1;
    }
server {
    listen         192.168.31.104:81;
    server_name    _;
    root           /var/www/site2;
   }
server {
    listen         192.168.31.104:82;
    server_name    _;
    root           /var/www/site3;
    }
```

Task_2

Create 3 Centos 7 virtual machines on the same local network.

The first virtual machine is your Nginx in reverse proxy mode with a domain (example.godeltech.com)

The second and third are your Apache applications. (two different pages on php)

You must configure Nginx in reverse proxy mode to access your pages. As a result, send a screenshot requesting your example.godeltech.com/page and configuration file of your Nginx.

```
server {
    listen          80 default_server;
    listen          [::]:80 default_server;
    server_name     _;
    root            /usr/share/nginx/html;
    include /etc/nginx/default.d/*.conf;

    location / {
            proxy_pass http://192.168.31.105/sample/;
    }
}
```

Task_3

Create 3 virtual machines with Centos 7 operating system is the same local network.

The first virtual machine is your load balancer(Nginx)

The second and third is your Apache Tomcat application

It is necessary to configure the Nginx in such a way that requests come in 60% to the second VM and 40% to the third VM.

Write a bash/python script to send 10 requests to your load balancer. As a result, send the output of the Apache Tomcat log from each VM

```
upstream backend {
    server 192.168.31.100:8080 weight=6;
    server 192.168.31.105:8080 weight=4;
}

    server {
        listen          80 default_server;
        listen          [::]:80 default_server;
        server_name     _;
        root            /usr/share/nginx/html;
        include /etc/nginx/default.d/*.conf;

        location / {
                proxy_pass http://backend/sample/;
        }
    }
}
```

```
#!/bin/bash
for ((i = 0; i < 10; i++)); do
curl 192.168.31.101 | grep 'VM'
done

sshpass -p '11041976' ssh root@192.168.31.100 "cat /opt/tomcat/latest/logs/localhost_access_log.$(date +%Y-%m-%d).txt && exit"
echo "------------------------------------ VM2 ------------------------------------"
sshpass -p '11041976' ssh root@192.168.31.105 "cat /opt/tomcat/latest/logs/localhost_access_log.$(date +%Y-%m-%d).txt && exit"
```

Task_4

Configure nginx load balancer to determine the real ip address of client.

```
set_real_ip_from 192.168.31.0/24;

location / {
        proxy_pass http://backend/sample/;
        proxy_set_header X-Real-IP $remote_addr;
        proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
        proxy_set_header Host $http_host;
        proxy_intercept_errors on;
}
```