Assignment 3

```
[root@master html]# cat /etc/sysconfig/network-scripts/ifcfg-ens33
TYPE="Ethernet"
PROXY_METHOD="none"
BROWSER_ONLY="no"
BOOTPROTO="static"
DEFROUTE="yes"
IPV4_FAILURE_FATAL="no"
IPV6INIT="yes"
IPV6_AUTOCONF="yes"
IPV6_DEFROUTE="yes"
IPV6_FAILURE_FATAL="no"
IPV6_ADDR_GEN_MODE="stable-privacy"
NAME="ens33"
DEVICE="ens33"
ONBOOT="yes"
#IPADDR=172.24.0.1
#NETMASK=255.255.0.0
IPADDR1=172.24.0.1
IPADDR2=172.24.0.2
PREFIX0=16
[root@master html]# _
```

As we are doing Ip based virtual hosting we must add the Ip addresses used to host in ifcfg-ens 33 file

```
[root@master html]# cd /var/www/html
[root@master html]# ls
website1  website2
[root@master html]# tree
.
├── website1
│   ├── error1.html
│   └── website1.html
└── website2
    ├── error2.html
    └── index.html

2 directories, 4 files
[root@master html]#
```

Next we create 2 directories in /var/www/html

Then we create error files and homepage files in each of them

```
[root@master html]# ls
website1  website2
[root@master html]# cd website1
[root@master website1]# cat website1.html
<!DOCTYPE html>
<html>
<head>
<title>This is Website 1</title>
<style>
body {
  background-colour: #ffffff;
}
h1 {
  font-size: 24px;
}
</style>
</head>
<body>
<h1>This is Website 1</h1>
</body>
</html>
[root@master website1]# cat error1.html
<!DOCTYPE html>
<html>
<head>
<title>Web Gowd can stop you anywhere</title>
</head>
<body>
<h1>You should be an Authenticated user.Contact web gawd!<h1>
</body>
</html>
[root@master website1]# _
```

→ homepage of website1 with file name as website1.html

→ error file for wrong authentication

```
[root@master html]# ls
website1  website2
[root@master html]# cd website2
[root@master website2]# ls
error2.html  index.html
[root@master website2]# cat index.html
this is website2
[root@master website2]# cat error2.html
<!DOCTYPE html>
<html>
<head>
<title>Web Gawd can stop you anywhere</title>
</head>
<body>
<h1>You should be an Authenticated user . Contact web gawd!</h1>
</body>
</html>
[root@master website2]#
```

Similarly for website2 but with homepage file name as index.html

```
[root@master html]# cat /etc/hosts
127.0.0.1   localhost localhost.localdomain localhost4 localhost4.localdomain4
::1         localhost localhost.localdomain localhost6 localhost6.localdomain6
172.24.0.1 www.website1.com www ⎯
172.24.0.2 www.website2.com www ⎯
[root@master html]# _
```

Next we have to change the hosts file in both server and clients

[To get the functionality of DNS]

Next we must change the httpd.conf file

```
#
# Listen: Allows you to bind Apache to specific IP addresses and/or
# ports, instead of the default. See also the <VirtualHost>
# directive.
#
# Change this to Listen on specific IP addresses as shown below to
# prevent Apache from glomming onto all bound IP addresses.
#
#Listen 12.34.56.78:80
Listen 80
Listen 15
```

Adding required ports

For server to listen from different ports we must change this directive

```
#
# Dynamic Shared Object (DSO) Support
#
```

```
        #
        Require all granted
    </Directory>
```

Adding file names that can be served

```
    #
    # DirectoryIndex: sets the file that Apache will serve if a directory
    # is requested.
    #
    <IfModule dir_module>
        DirectoryIndex website1.html index.html error1.html error2.html
    </IfModule>

    #
    # The following lines prevent .htaccess and .htpasswd files from being
    # viewed by Web clients.
    #
```

```
<VirtualHost 172.24.0.1:15>
        ServerName 172.24.0.1
        DocumentRoot /var/www/html/website1
</VirtualHost>
<VirtualHost 172.24.0.2:80>
        ServerName 172.24.0.2
        DocumentRoot /var/www/html/website2
</VirtualHost>
```

We can specify the required port here

Adding Virtual host

```
<Directory /var/www/html/website1>
        <RequireAll>
        Require ip 172.24.0.10        C10
        Require not ip 172.24.0.20     C20
        </RequireAll>
</Directory>

<Directory /var/www/html/website2>
        <RequireAll>
        Require ip 172.24.0.20        C20
        Require not ip 172.24.0.10     C10
        </RequireAll>
</Directory>
```

Granting access to specific I.P. addresses

```
[root@master /]# htpasswd -c -m /etc/httpd/webpass user1
New password:
Re-type new password:
Adding password for user user1
[root@master /]# htpasswd -m /etc/httpd/webpass user2
New password:
Re-type new password:
Adding password for user user2
[root@master /]# htpasswd -m /etc/httpd/webpass user3
New password:
Re-type new password:
Adding password for user user3
[root@master /]# htpasswd -m /etc/httpd/webpass user4
New password:
Re-type new password:
Adding password for user user4
[root@master /]# _
```

Creating Users for Authentication

```
<Directory /var/www/html/website1>
        AuthType Basic
        AuthName "Restriction"
        AuthUserFile "/etc/httpd/webpass"

        <RequireAll>
        Require ip 172.24.0.10
        Require not ip 172.24.0.20
        Require user user1 user3
        </RequireAll>

        <Files "error1.html">
                Require all granted
        </Files>

        ErrorDocument 401 /error1.html

</Directory>

<Directory /var/www/html/website2>
        AuthType Basic
        AuthName "Restriction"
        AuthUserFile "/etc/httpd/webpass"

        <RequireAll>
        Require ip 172.24.0.20
        Require not ip 172.24.0.10
        Require user user2 user4
        </RequireAll>

        <Files "error1.html">
                Require all granted
        </Files>

        ErrorDocument 401 /error1.html

</Directory>
```
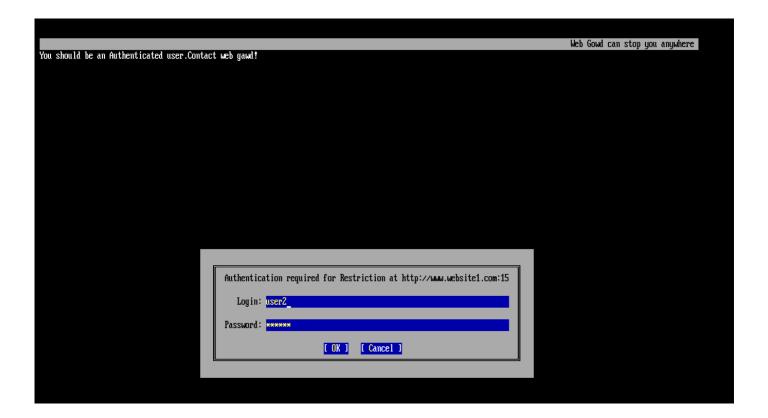
Handwritten annotations:
- } Required IPs
- } Required users
- } file to show for wrong authentication

```
[root@c10 ~]# elinks http://user1:123456@www.website1.com:15
```

```
                                                          This is Website 1
                            This is Website 1
```

```
[root@c10 ~]# elinks http://user2:123456@www.website1.com:15_
```

```
                                                  Web Gowd can stop you anywhere
You should be an Authenticated user.Contact web gawd!




                    ┌──────────────────────────────────────────────┐
                    │ Authentication required for Restriction at http://www.website1.com:15 │
                    │   Login: user2_                              │
                    │ Password: ******                            │
                    │            [ OK ]    [ Cancel ]             │
                    └──────────────────────────────────────────────┘
```

```
[root@c10 ~]# elinks http://user2:123456@www.website2.com_
```

```
                                                              http://user2@www.website2.com/
Your Connection is not allowed to access this website
```