

OS-Lab-9: Apache Web Server

Instructions: Command line work, have commands in journal for both command line and GUI

- install

CLI: To Install Apache in Fedora, open the CLI as root and enter: `yum install httpd`.

GUI: Go to the Kmenu>Administration>Software management and in the box at the top, type “httpd” and then in the list that comes up select httpd and then the install button that is on the same line to the left.

- start/stop service

CLI: Once it's done installing, enter: `systemctl start httpd.service` to start the service or replace start with stop to halt the service or enable.

GUI: Must start httpd service via CLI before you can set it in the GUI, however once the service is started, you start, stop and check the status via the GUI by going to the Kmenu>Administration>Service Management. Here find the item “httpd” and then start the service via the button at the top.

- Configure Apache

CLI: Log in root and enter in the CLI: `vi /etc/httpd/conf/httpd.conf`, here configure apache to your liking, for instance to use user directories or to load other modules and such.

GUI: Enter into the file manager and navigate to `/etc/httpd/conf` folder, then open the file `httpd.conf` in a text editor like Kwrite or Gedit configure it to your liking.

- configure access

To figure access to user directories and to secure web pages configure apache via the following:

- CLI: Configure access to user directories:

Edit the `/etc/httpd/conf/httpd.conf` file.

- Change the ‘*UserDir disabled*’ line to ‘*UserDir enabled <username>*’.

Uncomment the ‘**UserDir public_html**’ line.

Also uncomment the whole ‘<**Directory /home*/public_html**>’ section until the ‘</**Directory**>’.

Apply the proper permissions:

```
# chmod 711 ~<username>
```

```
# chmod 755 -R ~<username>/public_html/
```

Run the following commands so SELinux wouldn't bother you:

```
# setsebool -P httpd_enable_homedirs true
```

```
# chcon -R -t httpd_sys_content_t ~<username>/public_html
```

Configure access to secure web pages:

In `etc/httpd/conf/httpd.conf`

under virtual host section in `httpd.conf`

directory add the following:

```
<Directory /home/teacher2/public_html/stayout>
```

```
AuthType Basic
```

```

AuthName "Access to stayout page"
AuthUserFile "/etc/httpd/conf/access1.pwd"
Require valid-user
</Directory>

```

Then create access1.pwd to hold all passwd and create protected-dir/files-dir.

Then in the Terminal enter: `htpasswd -c access1.pwd <username>` = create password file in httpd (-c = create -cm = create with md5 hash).

GUI: Configure apache to use the user directories:

Open up the file manager and navigate to the `/etc/httpd/conf` directory and then open the `httpd.conf` file in a text editor.

In the `httpd.conf` file change the `'UserDir disabled'` line to `'UserDir enabled <username>'`.

Uncomment the `'UserDir public_html'` line.

Also uncomment the whole `'<Directory /home/*/public_html>'` section until the `'</Directory>'`.

Apply the proper permissions:

In the file manager navigate to the home directory and right the user directory and click the tab labeled "permissions", in this tab set the following permissions.

Full>read>read.

Then find that users `public_html` directory and the following permissions via the same tab as above.

Full>read/execute>read/execute and then select the "Apply changes to all subfolders and their contents". Then select "OK".

Configure access to secure web pages:

In file manager navigate to `/etc/httpd/conf` and then open the `httpd.conf` file in a text editor. under virtual host section in `httpd.conf` directory add the following:

```

<Directory /home/teacher2/public_html/stayout>
AuthType Basic
AuthName "Access to stayout page"
AuthUserFile "/etc/httpd/conf/access1.pwd"
Require valid-user
</Directory>

```

Then create access1.pwd to hold all passwd and create protected-dir/files-dir via the file manager.

Then open up the Terminal and enter: `htpasswd -c access1.pwd <username>` = create password file in httpd (-c = create -cm = create with md5 hash).

Be able to perform these without the use of the text.

Turn in a copy of your journal entries.