

1. Install Apache HTTP server

```
fady@fady-virtual-machine:~$ apache2 -v
Server version: Apache/2.4.58 (Ubuntu)
Server built: 2025-08-11T11:10:09
fady@fady-virtual-machine:~$
```

2. Create two simple html pages named “page1.html, page2.html” then use the `suitable` directive to automatically redirect from `localhost/page1.html` to `localhost/page2.html`.

Redirect `/page1.html` `/page2.html`

Then reload apache `sudo systemctl reload apache2`

3. Ask for user name and password when accessing a directory

```
<Directory "/var/www/html/first iti apache">
    AuthType Basic
    AuthName "Restricted Area"
    AuthUserFile /etc/apache2/.htpasswd
    Require valid-user
</Directory>
```

```
fady@fady-virtual-machine:/etc/apache2/sites-available$ sudo systemctl reload apache2
fady@fady-virtual-machine:/etc/apache2/sites-available$ sudo htpasswd -c /etc/apache2/.htpasswd fady
New password:
Re-type new password:
Adding password for user fady
fady@fady-virtual-machine:/etc/apache2/sites-available$ vi 000-default.conf
fady@fady-virtual-machine:/etc/apache2/sites-available$ sudo vi 000-default.conf
fady@fady-virtual-machine:/etc/apache2/sites-available$ sudo systemctl reload apache2
fady@fady-virtual-machine:/etc/apache2/sites-available$ sudo vi 000-default.conf
fady@fady-virtual-machine:/etc/apache2/sites-available$
```

4. Apply authentication before downloading PDF files.

```
<Directory "/var/www/html">
<FilesMatch "\.pdf$">
    AuthType Basic
    AuthName "PDF Downloads Restricted"
    AuthUserFile /etc/apache2/.htpasswd
    Require valid-user
</FilesMatch>
</Directory>
```

5. Create a directory then allow access to one of your classmates only.

```
<Directory "/var/www/html/classroom">
    AuthType Basic
    AuthName "Restricted Classroom"
    AuthUserFile /etc/apache2/.htpasswd
    Require user Abdulla
</Directory>
```

6. Disable listing the directory content (*hint use `index`s*)

```
<Directory "/var/www/html">
  Options -Indexes +FollowSymLinks
  AllowOverride All
  Require all granted
</Directory>
```

7. Change the default index page to be default.html instead of index.html (*use DirectoryIndex*)

```
<Directory "/var/www/html">
  Options -Indexes +FollowSymLinks
  AllowOverride All
  Require all granted
  DirectoryIndex default.html
</Directory>
```