LAB 4

1- Using `apt` install `apache2` server

```
tahoun@tahoun-VirtualBox:~$ sudo apt install apache2
[sudo] password for tahoun:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
apache2 is already the newest version (2.4.52-1ubuntu4.4).
The following packages were automatically installed and are no longer required:
  libflashrom1 libftdi1-2 libllvm13
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 14 not upgraded.
tahoun@tahoun-VirtualBox:~$ sudo systemctl start apache2
```

2- Replace the default `index.html` content with your own content

```
tahoun@tahoun-VirtualBox:~$ cd /var/www/html
tahoun@tahoun-VirtualBox:/var/www/html$ sudo nano test.html
tahoun@tahoun-VirtualBox:/var/www/html$ sudo mv test.html index.html
tahoun@tahoun-VirtualBox:/var/www/html$ sudo systemctl restart apache2
tahoun@tahoun-VirtualBox:/var/www/html$ []
```

127.0.0.1/

127.0.0.1

welcome To apache

tahoun@tahoun-VirtualBox: /var/www/html

```
  GNU nano 6.2                                                test.html *
<h1>welcome To apache</h1>
```
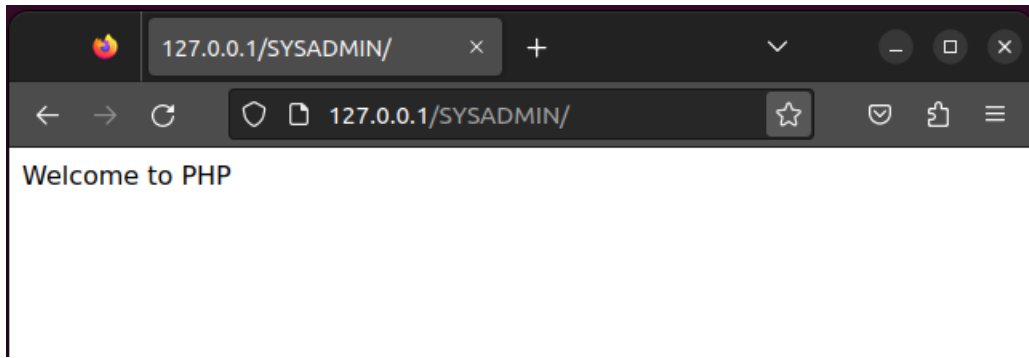
3- install `php` module for `apache2`

```
tahoun@tahoun-VirtualBox:/var/www/html$ sudo apt install libapache2-mod-php
Reading package lists... Done
```

4- create new Named VirtulHost to serve new php project with special access log

create simple `index.php` file for the php site
configure `/etc/hosts` for php site.

```
tahoun@tahoun-VirtualBox:/var/www/html$ sudo mkdir SYSADMIN
tahoun@tahoun-VirtualBox:/var/www/html$ sudo nano SYSADMIN/index.php
tahoun@tahoun-VirtualBox:/var/www/html$ sudo nano /etc/apache2/sites-available/SYSADMIN.conf
tahoun@tahoun-VirtualBox:/var/www/html$ sudo systemctl reload apache2
[sudo] password for tahoun:
tahoun@tahoun-VirtualBox:/var/www/html$ sudo a2ensite SYSADMIN.conf
```

Welcome to PHP


```
GNU nano 6.2                                          SYSADMIN/index.php *
<?php
echo 'Welcome to PHP';

?>
```



```
GNU nano 6.2                              /etc/apache2/sites-available/SYSADMIN.conf *
Configuration:
<VirtualHost *:80>
    ServerName SYSADMIN.local
    DocumentRoot /var/www/html/SYSADMIN

        ErrorLog /var/log/apache2/SYSADMIN-error.log
        CustomLog /var/log/apache2/SYSADMIN-access.log combined

        <Directory /var/www/html/SYSADMIN>
        AllowOverride All
        Require all granted
<Directory>

</VirtualHost>
```

4- disable directory listing for the new virtualhost


```
GNU nano 6.2                              /etc/apache2/sites-available/SYSADMIN.conf
Configuration:
<VirtualHost *:80>
    ServerName SYSADMIN.local
    DocumentRoot /var/www/html/SYSADMIN

        ErrorLog /var/log/apache2/SYSADMIN-error.log
        CustomLog /var/log/apache2/SYSADMIN-access.log combined

        <Directory /var/www/html/SYSADMIN>
        Options -Indexes
        AllowOverride All
        Require all granted
<Directory>

</VirtualHost>
```