# System Admin II: Lab4

- Using apt install apache2 server

```
maysara@Linux-Ubuntu:~$ sudo apt install apache2
[sudo] password for maysara:
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:
  linux-headers-5.15.0-60 linux-headers-5.15.0-60-generic linux-image-5.15.0-60-generic linux-modules-5.15.0-60-generic
  linux-modules-extra-5.15.0-60-generic systemd-hwe-hwdb
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 238 not upgraded.
maysara@Linux-Ubuntu:~$
```

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

```
0 upgraded, 0 newly installed, 0 to remove and 238 not upgraded.
maysara@Linux-Ubuntu:~$ cd /var/www/html
maysara@Linux-Ubuntu:/var/www/html$ sudo nano test.html
maysara@Linux-Ubuntu:/var/www/html$ sudo mv test.html index.html
maysara@Linux-Ubuntu:/var/www/html$ sudo systemctl start apache2
maysara@Linux-Ubuntu:/var/www/html$
```
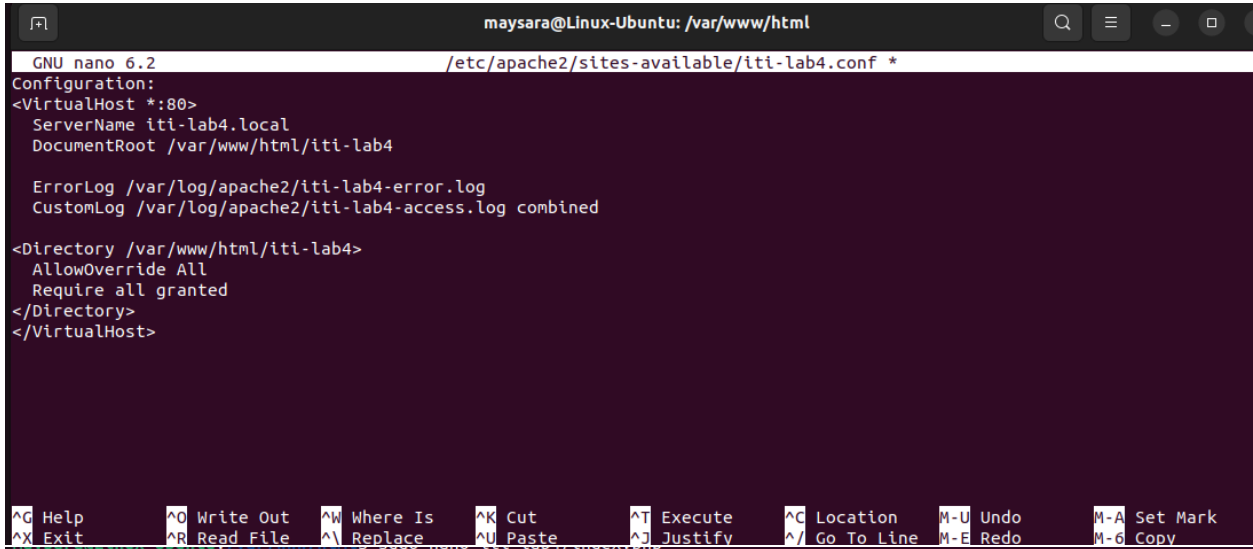
localhost/    × +

← → C    localhost    ☆
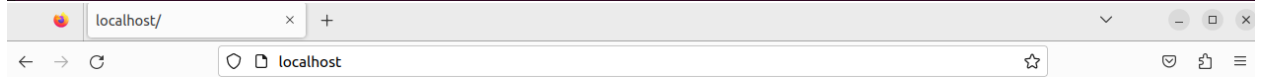
## Hello world! -MS

- Install php module for apache2

```
maysara@Linux-Ubuntu:/var/www/html$ sudo apt install libapache2-mod-php
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libapache2-mod-php8.1 php-common php8.1-cli php8.1-common php8.1-opcache php8.1-readline
Suggested packages:
  php-pear
The following NEW packages will be installed:
  libapache2-mod-php libapache2-mod-php8.1 php-common php8.1-cli php8.1-common php8.1-opcache php8.1-readline
0 upgraded, 7 newly installed, 0 to remove and 238 not upgraded.
Need to get 5,118 kB of archives.
After this operation, 21.3 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://eg.archive.ubuntu.com/ubuntu jammy/main amd64 php-common all 2:92ubuntu1 [12.4 kB]
Get:2 http://eg.archive.ubuntu.com/ubuntu jammy-updates/main amd64 php8.1-common amd64 8.1.2-1ubuntu2.11 [1,126 kB]
Get:3 http://eg.archive.ubuntu.com/ubuntu jammy-updates/main amd64 php8.1-opcache amd64 8.1.2-1ubuntu2.11 [365 kB]
Get:4 http://eg.archive.ubuntu.com/ubuntu jammy-updates/main amd64 php8.1-readline amd64 8.1.2-1ubuntu2.11 [13.5 kB]
```

- Create new named VirtualHost to serve new php projct with special access log
- Create simple index.php file for the php site
- Configure /etc/hosts for php site

```
maysara@Linux-Ubuntu:/var/www/html$ sudo mkdir iti-lab4
maysara@Linux-Ubuntu:/var/www/html$ sudo nano iti-lab4/index.php
maysara@Linux-Ubuntu:/var/www/html$
```

```
⊞                              maysara@Linux-Ubuntu: /var/www/html              🔍  ☰  _  □

  GNU nano 6.2                    /etc/apache2/sites-available/iti-lab4.conf *
Configuration:
<VirtualHost *:80>
  ServerName iti-lab4.local
  DocumentRoot /var/www/html/iti-lab4

  ErrorLog /var/log/apache2/iti-lab4-error.log
  CustomLog /var/log/apache2/iti-lab4-access.log combined

<Directory /var/www/html/iti-lab4>
  AllowOverride All
  Require all granted
</Directory>
</VirtualHost>




^G Help        ^O Write Out   ^W Where Is    ^K Cut         ^T Execute    ^C Location    M-U Undo   M-A Set Mark
^X Exit        ^R Read File    ^\ Replace     ^U Paste       ^J Justify    ^/ Go To Line  M-E Redo   M-6 Copy
maysara@Linux-Ubuntu:/var/www/html$ sudo nano /etc/apache2/sites-available/iti-lab4.conf
maysara@Linux-Ubuntu:/var/www/html$ sudo a2ensite iti-lab4.conf
Enabling site iti-lab4.
To activate the new configuration, you need to run:
  systemctl reload apache2
maysara@Linux-Ubuntu:/var/www/html$ systemctl reload apache2
maysara@Linux-Ubuntu:/var/www/html$ sudo nano /etc/hosts
maysara@Linux-Ubuntu:/var/www/html$
```

- Disable directory listing for the new VirtualHost

```
maysara@Linux-Ubuntu:/var/www/html$ sudo nano /etc/apache2/sites-available/iti-lab4.conf
maysara@Linux-Ubuntu:/var/www/html$
```

GNU nano 6.2                          /etc/apache2/sites-available/iti-lab4.conf *
Configuration:
<VirtualHost *:80>
  ServerName iti-lab4.local
  DocumentRoot /var/www/html/iti-lab4

  ErrorLog /var/log/apache2/iti-lab4-error.log
  CustomLog /var/log/apache2/iti-lab4-access.log combined

<Directory /var/www/html/iti-lab4>
  Options -Indexes
  AllowOverride All
  Require all granted
</Directory>
</VirtualHost>