

## PRACTICAL 4

## Q. CREATE A SIMPLE WEB SERVER USING RASPBERRY PI

sudo apt update: Updating our system before creating the server

```
pi@raspberrypi:~ $ sudo apt update
Get:1 https://linux.teamviewer.com/deb stable InRelease [11.0 kB]
Get:2 http://archive.raspberrypi.org/debian buster InRelease [32.6 kB]
Get:3 http://raspbian.raspberrypi.org/raspbian buster InRelease [15.0 kB]
Get:4 https://linux.teamviewer.com/deb stable/main armhf Packages [4,422 B]
Get:5 http://raspbian.raspberrypi.org/raspbian buster/main armhf Packages [13.0 MB]
Get:6 http://archive.raspberrypi.org/debian buster/main armhf Packages [331 kB]
Fetched 13.4 MB in 25s (541 kB/s)
Reading package lists... 0%
```

sudo apt-get install apache2 -y: Installing apache onto our system

```
pi@raspberrypi:~ $ sudo apt install apache2 -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom
The following NEW packages will be installed:
  apache2
0 upgraded, 1 newly installed, 0 to remove and 115 not upgraded.
Need to get 0 B/251 kB of archives.
After this operation, 613 kB of additional disk space will be used.
Selecting previously unselected package apache2.
(Reading database ... 90%
```

service apache2 start: Checking if apache has been installed onto our system

service apache2 status: Checking for the status of Apache server

```
pi@raspberrypi:~ $ service apache2 start
pi@raspberrypi:~ $ service apache2 status
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset:
   Active: active (running) since Sat 2020-11-07 08:16:49 IST; 1min 55s ago
     Docs: https://httpd.apache.org/docs/2.4/
  Main PID: 1933 (apache2)
    Tasks: 55 (limit: 1942)
   CGroup: /system.slice/apache2.service
           └─1933 /usr/sbin/apache2 -k start
             └─1934 /usr/sbin/apache2 -k start
               └─1935 /usr/sbin/apache2 -k start

Nov 07 08:16:49 raspberrypi systemd[1]: Starting The Apache HTTP Server...
Nov 07 08:16:49 raspberrypi apachectl[1929]: AH00558: apache2: Could not reliabl
Nov 07 08:16:49 raspberrypi systemd[1]: Started The Apache HTTP Server.
lines 1-14/14 (END)
```

Now we create a HTML document with the name index.html

`sudo rm /var/www/html/index.html`: Removing our existing index.html file from the folder /var/www/html

`sudo cp Desktop/index.html /var/www/html`: Copying our newly created HTML document namely index.html into the folder /var/www/html/

```
pi@raspberrypi:~ $ sudo rm /var/www/html/index.html
pi@raspberrypi:~ $ sudo cp Desktop/index.html /var/www/html
pi@raspberrypi:~ $
```

ifconfig: Next check for the ip address

```
pi@raspberrypi:~ $ ifconfig
eth0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    ether b8:27:eb:c6:ec:ea txqueuelen 1000 (Ethernet)
    RX packets 0 bytes 0 (0.0 B)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 0 bytes 0 (0.0 B)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 269 bytes 39682 (38.7 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 269 bytes 39682 (38.7 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

wlan0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.0.112 netmask 255.255.255.0 broadcast 192.168.0.255
    inet6 fe80::5836:687f:3da7:7592 prefixlen 64 scopeid 0x20<link>
    ether b8:27:eb:93:b9:bf txqueuelen 1000 (Ethernet)
```

Finally, put the ip address into any remote browser and your web server is ready!