Install and Configure Apache Web Server on Debian

⚠️ **Note: All commands are executed on** `root` **!**

1️⃣ Install Apache

```
1  apt install apache2 -y
```

2️⃣ Create a New Virtual Host Configuration

1. Navigate to the directory

```
1  cd /etc/apache2/sites-available
```

2. Now, copy the default config and rename it

```
1  cp 000-default.conf 001-htl.conf
2  ls -la
```

3. Edit the config and replace the following things

Replace

```
1  <VirtualHost *:80>
```

```
1  DocumentRoot /var/www/html
```

with

```
1  <VirtualHost *:8080>
```

```
1  DocumentRoot /var/www/htl
```

3️⃣ Create the Web Directory and HTML File

1. Navigate to the directory `/var/www/`

```
1  cd /var/www/
```

2. Create directory `htl` and go into it

```
1  mkdir htl
2  cd htl/
```

3. Create File `index.html`

```
1  touch index.html
```

4. Add content to HMTL File, e.g.

```
1  <h1>Furzipoops</h1>
```

4 Enable the new Site

1. Go into `sites-available`

```
1  cd /etc/apache2/sites-available/
```

2. Enable site

```
1  a2ensite 001-htl.conf
```

3. Reload Apache

```
1  systemctl reload apache2.service
```

⚠️ **Note: In `sites-enabled` needs to be a symbolic link to the `001-htl.conf` file**

5 Configure Apache to Listen on Port 8080

1. Open the ports configuration in `/etc/apache2/ports.conf`
2. Now add the following

```
1  Listen 80 # already in the File
2  # Add the following below
3  Listen 8080
```

3. Restart `apache2.service`

```
1  systemctl restart apache2.service
```

6 Test the Webserver

1. In your graphical VM, open a browser and type

```
1  http://10.0.5.20:8080/
```

⚠️ **Note: Use the IP of your Webserver**

7️⃣ Disable the Custom Site (if needed)

1. If you need to disable the site, execute

```
1   a2dissite <filename>.conf
```

2. Reload the service

```
1   systemctl reload apache2.service
```

8️⃣ Connect from local machine to Webserver

To connect from your local machine (Windows, MacOS, ..) you need to add Port Forwarding Rule

1. In VirtualBox, go to Network
2. Go to NAT Network
3. Select your NAT Network
4. Go to Port Forwarding
5. Add a new Rule
6. Host Port

```
1   8080
```

7. Host IP

```
1   10.0.5.20 # ip of your Webserver
```

8. Guest Port

```
1   8080
```

🎉 **Congratiolations! You're all set**