

Topic: Host a simple website on a Raspberry Pi or Virtualbox using Apache/NGINX

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Hardware Requirement

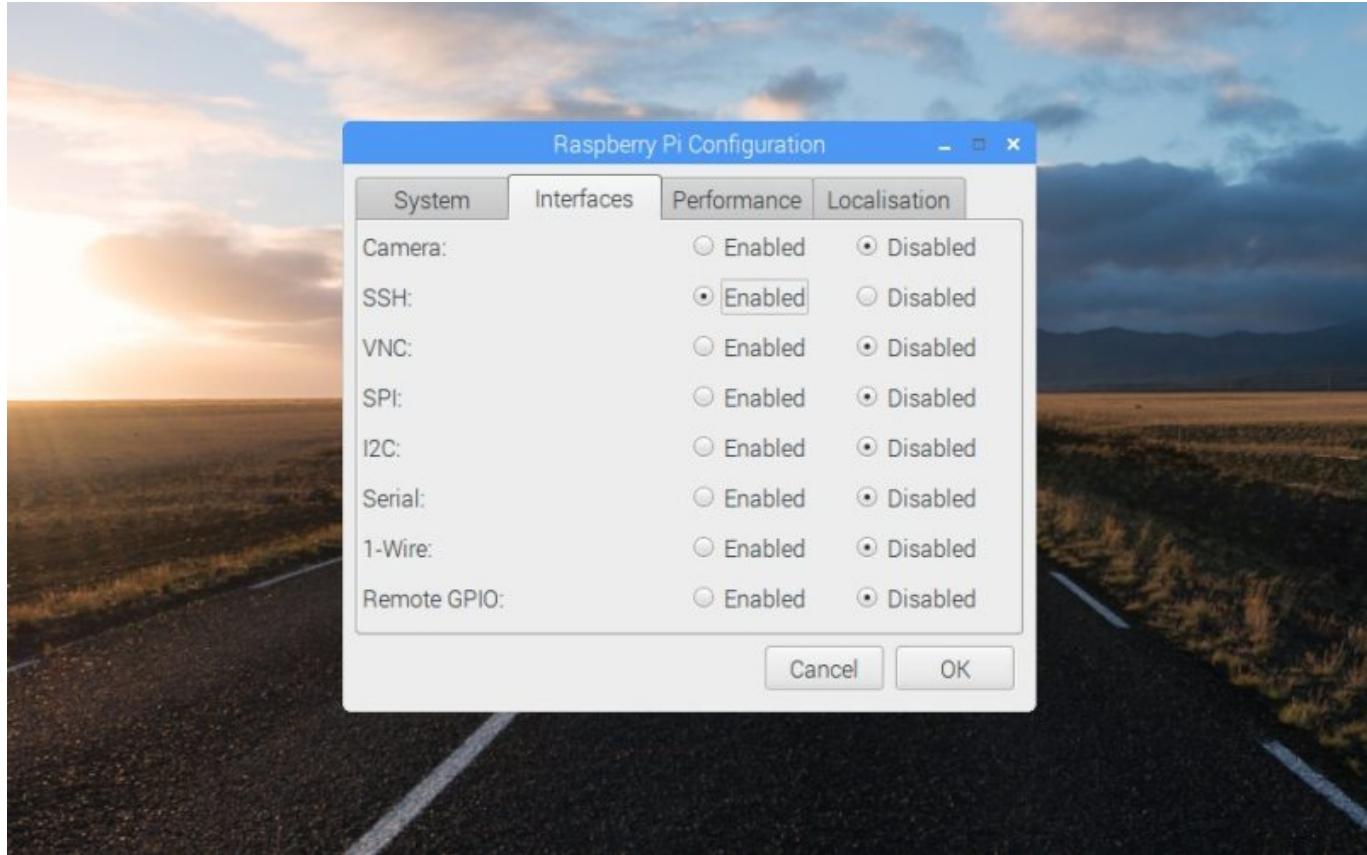
- Raspberry Pi
- USB Type-C Cable with power adapter
- PC monitor
- Micro-SD card with card reader
- Keyboard

Step1: Power and connection

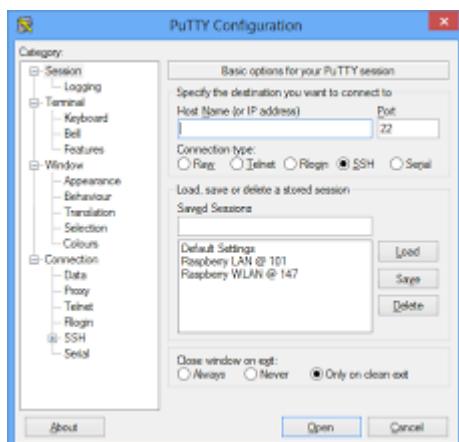
THe first step is to be connect raspberry pi with your monitor. so first step is power your raspberry pi then connect your local wifi with your raspberry pi wifi name and password.

Step2: setting up SSH

- once you connected, you need to install putty and enable SSH. In new raspberry pi they already installed in it. so you first click the raspberry logo.
- This logo at the top-left corner. then you click on Select Preferences and then click on Raspberry Pi Configuration. Now, you navigating this window , you find SSH in the second line. now, you enable the SSH.
- This SSH client use for the communicate with the raspberry pi .



- Now, you need to setup the putty. you need a IP address in the field. so, first you know your raspberry IP address by this way: you can move your mouse over the right side at the top side network icon. you can look your IP address there. so, you open putty configuration and enter your IP address in it and select port at "22". Then click it open the putty will ask a username and password.
- The default login details for pi username are "Pi" and password is "raspberry".



step 3: Updating Raspberry Pi

- Before install any software in raspberry pi, we need to update our PI . because pi will not disturb when we instal the apache and php server. To do that , you updated PI as using terminal by this command:

sudo apt-get update

sudo apt-get upgrade

step4: Installing Apache and PHP

To install apache ,you use this command in terminal:

sudo apt-get install apache2 -y

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- To check the apache is running:
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sudo service apache2 status

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- Now, you install the php server by this command:
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sudo apt-get install apache2 php5 libapache2-mod-php5

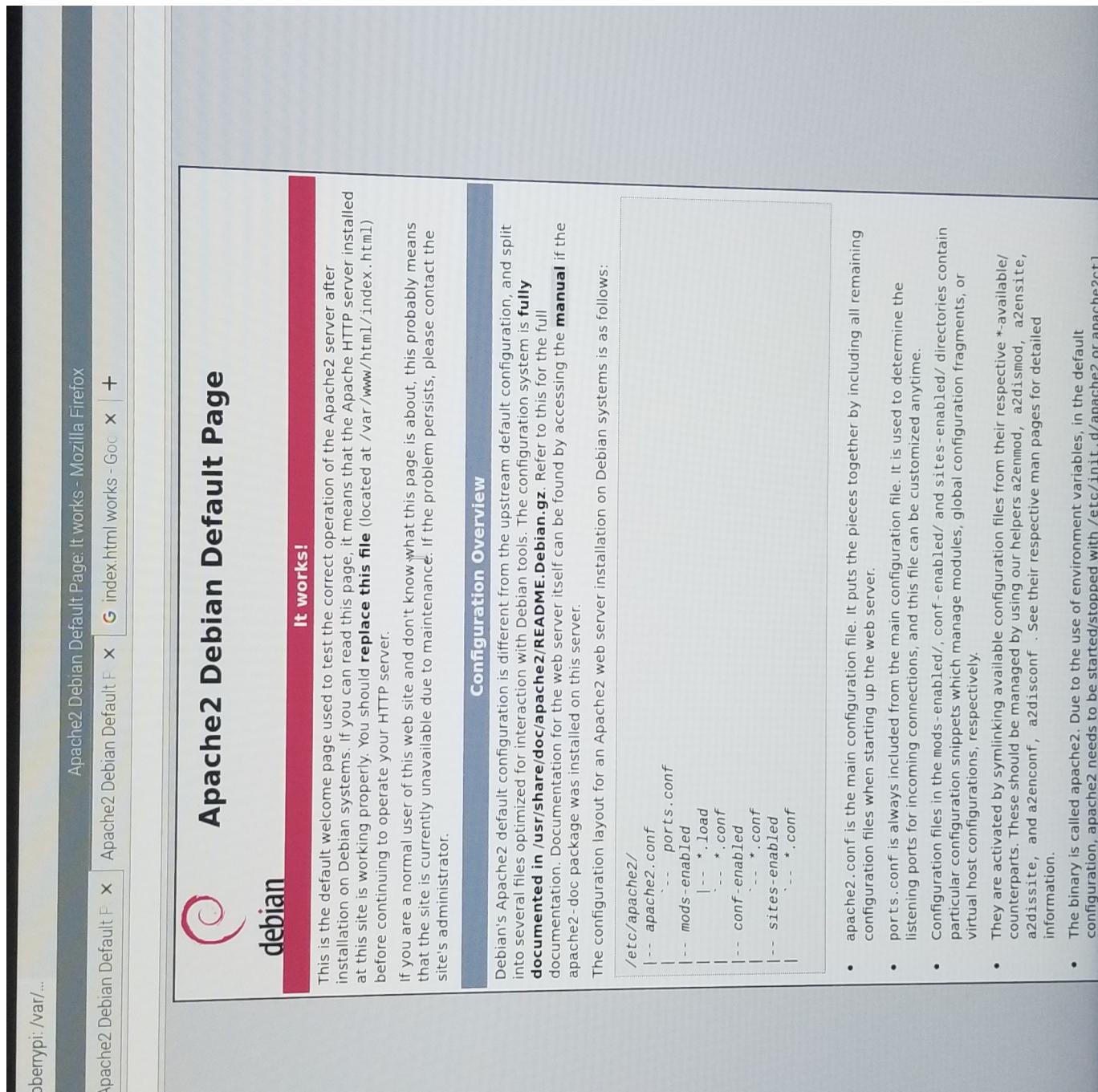
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- For activate the apache server use this command
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sudo service apache2 restart

step 4: check the apache server

Open any Web browser and search this URL in the address bar:

<http:// local host or your ip address>



- apache2.conf is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- ports.conf is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the mods-enabled/, conf-enabled/ and sites-enabled/ directories contain particular configuration snippets which manage modules, global configuration fragments, or virtual host configurations, respectively.
- They are activated by symlinking available configuration files from their respective *-available/ counterparts. These should be managed by using our helpers a2enmod, a2dismod, a2ensite, a2dissite, and a2enconf, a2disconf . See their respective man pages for detailed information.
- The binary is called apache2. Due to the use of environment variables, in the default configuration, apache2 needs to be started/stopped with /etc/init.d/apache2 or apache2ctl

step 5: setting up Html page

find html file by this command:

```
cd var/www/html
```

Now, if you want to change or edit the file

```
sudo chown pi:index.html
```

```
sudo nano index.html
```

Cited:-

1. Orsini, Lauren, and Hack. "How to Host a Website with Raspberry Pi." ReadWrite, 27 Aug. 2018, <https://readwrite.com/2014/06/27/raspberry-pi-web-server-website-hosting/>.
2. ago, Lakshan 1 year, et al. "Set up a Raspberry Pi Web Server and Easily Build an HTML Webpage." Latest Open Tech From Seeed, 23 June 2020, <https://www.seeedstudio.com/blog/2020/06/23/setup-a-raspberry-pi-web-server-and-easily-build-an-html-webpage-m/>.