**Installation and Configuration**

This document shows the additional tools and configurations that the Raspberry needs for the execution of the BionicKitchen project. It is explained step by step the installation of the necessary tools and respective configurations, for easy understanding and optimum functionality.

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**\***NOTE: The steps below are for Raspbian Jessie OS. The following steps (in green letters) are execute in the OS terminal.

# **Installation of LAMP SERVER**

LAMP is the acronym used to describe an internet infrastructure system that uss the following tools.

|  |  |
| --- | --- |
| **L** | Linux (OS) |
| **A** | Apache (Web server) |
| **M** | MySQL or MariaDB (Database) |
| **P** | PHP, Python or Pearl (Programming languages) |

**Manual installation**

1. Install updates:

sudo apt-get update && sudo apt-get upgrade

1. Install Apache2:

sudo apt-get install apache2 apache2-utils

1. Install MySQL server

sudo apt-get install mysql-server

1. Install PHP 7.0:

sudo apt-get install php7.0 php7.0-mysql

1. Install PHP-My-Admin:

sudo apt-get install phpmyadmin

5.1 in this installation, the terminal show you a message and you need the choose the follow:

apache2

5.2 next step, you choose if you want to configure database for phpmyadmin with dbconfig-common and next you need choose a password:

yes

1. Configure Apache to work with PHP-My-Admin:  
    sudo nano /etc/apache2/apache2.conf

6.1 and include this to end the file:

Include /etc/phpmyadmin/apache.conf

ctrl + c –-- to save

ctrl + x –-- to close

* 1. restart Apache:

/etc/init.d/apache2 restart

1. Access in phpmyadmin at root:

sudo –s

mysql -u root -p

mariadb: USE mysql;

mariadb: SELECT User, Host, plugin FROM mysql.user;

7.1 if in root col plugin show you unix\_socket or anything you need the follow next:

mariadb: UPDATE user SET plugin=’’ WHERE User=’root’;

mariadb: FLUSH PRIVILEGES;

7.2 and you need a set new password for root:

mariadb: SET PASSWORD FOR ‘root’@’localhost’ = PASSWORD(‘<password>’);

# **Installation Kivy on Raspberry Pi**

**Manual installation**

1. Install the dependencies:

sudo apt-get update

sudo apt-get install libsdl2-dev libsdl2-image-dev libsdl2-mixer-dev libsdl2-ttf-dev \pkg-config libgl1-mesa-dev libgles2-mesa-dev \

python-setuptools libgstreamer1.0-dev git-core \

gstreamer1.0-plugins-{bad,base,good,ugly} \

gstreamer1.0-{omx,alsa} python-dev libmtdev-dev \

xclip

1. Install a new enough version of Cython:

sudo pip install -U Cython==0.25.2

1. Install Kivy globally on your system:

sudo pip install git+https://github.com/kivy/kivy.git@master

# **Configuration of user**

**Manual installation**

1. For create a user:

sudo adduser <*username*>

1. Need add the new user to list of root:

sudo visudo

2.1 add in this line User privilege specification:

<*username*> ALL=(ALL:ALL) ALL

ctrl + c –-- to save

ctrl + x –-- to close

1. To eliminate the old user you need change the user and in the terminal put the follow:

sudo -s

userdel –f <*username*>

3.1 if you cant delete it, in the screen showing the process PID and you make the follow:

pkill <*pid*> or pkill -f <*pid*>

1. Eliminate the home folder of old user:

sudo rm -rf /home/<*username*>

# **Re-installation Raspbian on Raspberry Pi**

**Manual Re-installation**

1. Reboot the raspberry and after to show the image multicolor you need press shift and you need follow the instruction for reinstall the system.
2. Press shift when multicolor image is shown on the Raspberry boot.
3. Follow system instructions for reinstall OS