Installing a local offline web server

The latest updates in the two most commonly used browsers (Firefox and Chrome) have caused that, due to apparent security issues, many web sites are not displayed correctly when opened directly on a computer ("offline") whereas if these pages are located on a web server they will be displayed correctly, just as if they were located on any server on the Internet. That's why, when working with Ardora and making previews, the most appropriate thing is to have a web server installed in our computer.

In the tutorial "0.- IMPORTANT: Preview" in Ardora's help website, www.webardora.net, tyou have other possible solutions to solve this problem although, if you are going to create a significant amount of content, the most advisable solution is the installation of this server which, as you will see, is very simple.

On the other hand, if the contents you develop include the so-called "server pages" or you use any " user management" system both in activity packages and in web spaces, the installation of this type of server is really essential.

In this tutorial we are going to explain the different options to perform this depending on the operating system you are working with (sections A.- Windows, B.- Linux and C.- Mac). In order to do this we are going to use the most widespread web server on the Internet nowadays, Apache; together with it we are going to install the PHP language since in all operating systems its installation is linked to Apache and it will be very useful for the "server pages" and the "user management" controls.

A.- WINDOWS:

From version 9.1 the program includes an " internal" web server for the Windows version, which is activated by default automatically when you download the program, which means that you do not need to install this server. However, if you wish to use another "external" server, please follow the steps described below.

There are several projects on the Internet which make the installation of this server much easier. One of them is **AppServ** (https://www.appserv.org/en/). We will explain how to proceed with this software due to its easy installation and usage.

Let's start by accessing its website and download it: https://www.appserv.org/en/download/. At the time this tutorial was created, the version that could be downloaded from their web was 9.3.0, which will install Apache 2.4.41 and PHP

7.3.10 and two database applications that are not important for our purpose since Ardora does not use databases.

By clicking on "download" we will be taken to the Sourceforge.net website, where, after some seconds, it will allow us to download the appserv-x64-9.3.0 file (it is possible that these numbers will change as this project progresses)

This installation file is for 64-bit versions of Windows. If you have a computer with 32-bit Windows you can simply click on "AppServ EOL Versions (2.5.x, 2.4.x)" on the same download page instead of clicking on "download"; from there you can download older versions of AppServ (for example, for Windows XP the most recommended ones are 2.4.9 or 2.5.8. On the same page you have links for these versions).

Double click on the downloaded file. It is likely that during the installation the Windows firewall will ask for your permission to "unblock" this service, if so **allow "unblock"**.
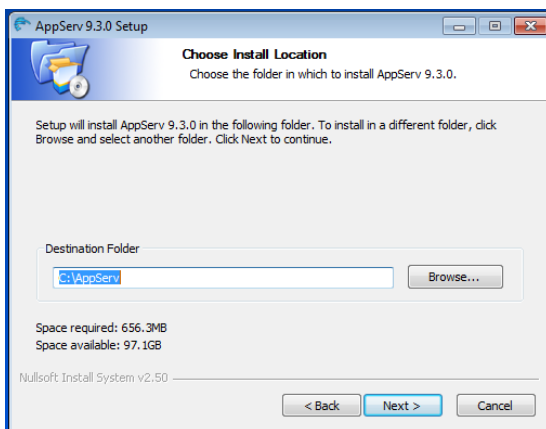
The installation procedure is similar to any software in Windows: run the "exe" file that we have just downloaded and follow the instructions; after accepting the license agreements (GNU) we will be asked about the folder where the server will be installed (by default c:\AppServ) if you decide to change this, DO NOT use names including strange letters as "ñ", nor blank spaces or written accents.
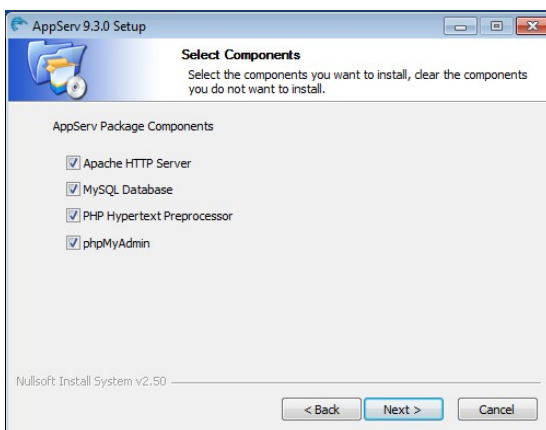
Once you click on "next", the following screen will be displayed. Here, you must indicate which applications you want to install. As we have previously mentioned, we only need the web server (Apache http Server) and the PHP language (PHP Hypertext Preprocessor). However, you could also install the other two related to the MySQL database (MySQL Database, the database itself and phpMyAdmin a MySQL editor) since they will require very little space on your hard disk and they will allow you, for example, to install on your own computer a Moodle, WordPress, Joomla, Drupal... to test or become familiar with these platforms.
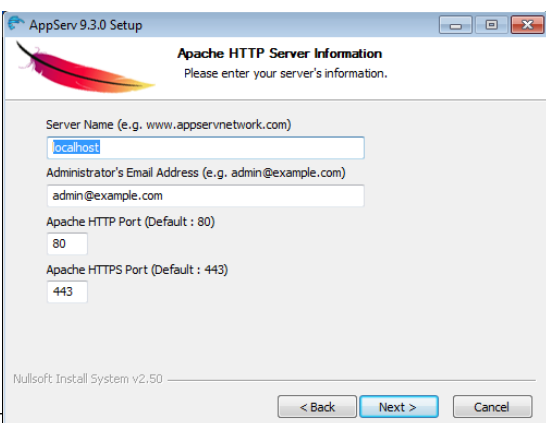
Then, the data regarding the web server to be installed ("Apache") will be displayed, unless there is already another server of this type available in your computer. The most advisable option is to accept the data displayed by not modifying them and clicking on "next".
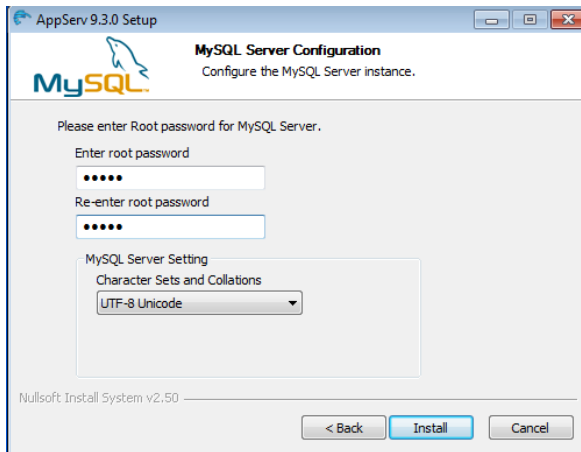
Finally, you will be asked to enter your password for the database (if you had previously specified that you wanted to install it); after entering the password twice the installation process will begin.
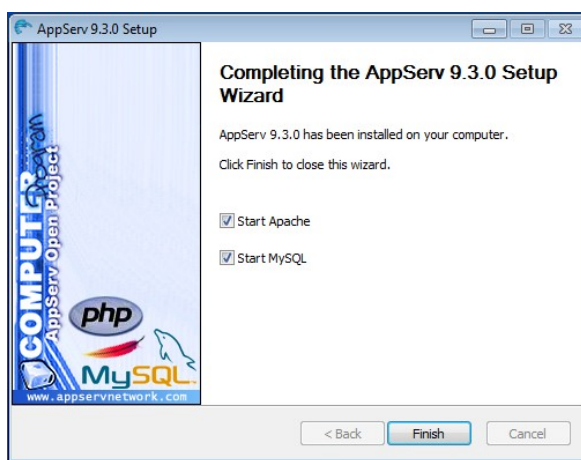

At the conclusion of the installation process this window will be displayed; please, keep these options checked so that every time you turn your computer on, you do not need to "launch this service".

IMPORTANT: Please, note that we have not installed a "regular" application (we mean a standard software with its "windows", "buttons"…, it is simply a "service", "something" that is working on our computer to deal with a number of issues, in this case web sites), so the options displayed in Start-Programs-AppServ only allow you to "start" or "stop" this service.

Once the server has been installed in our computer we should go to Ardora and specify "where" this server is located. To do this, we must select "**Configurate Ardora**" from the utilities menu.
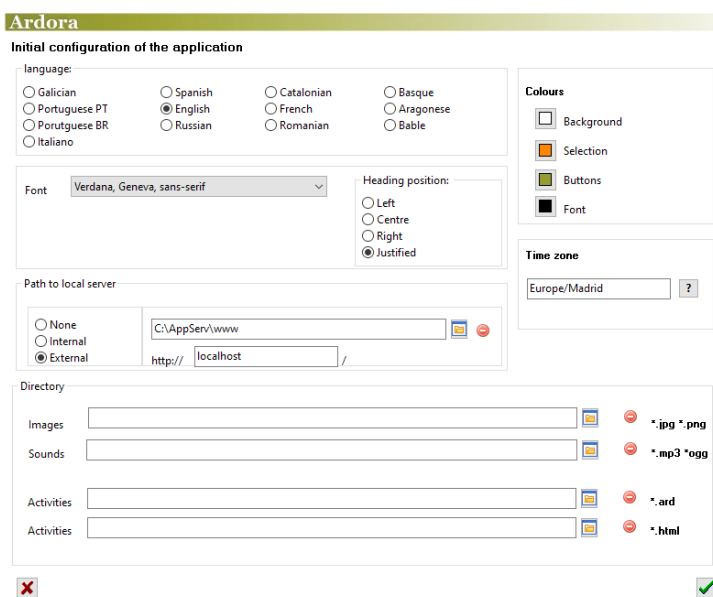
In the middle of the window, we must choose the " External" option located in the "**Path to local server**" menu and click on the button showing the icon of a folder opening by clicking on the button with the icon next to that field. Here we must **specify the position of the www folder inside the directory in which the web server has been installed.**
If you have not modified the default data of the installation program, the path should be "**c:\AppServ\ www**".

To save this data, click on the accept button in the bottom right corner. From this moment, all previews will be made through the web server (when you open the browser, in its URL you will notice that it begins with " http://localhost/...") So, what we see here will be exactly the same we will get when uploading our content to the Internet.

On the Internet you can find several projects that "do the same" as Appserv. Just by doing a search for "wamp" you will see several options; one of those which might be interesting is "UwAmp" . (https://www.uwamp.com/en/). Its main advantage is that, like Ardora, it doesn't need any installation process. So, it would be easily " portable" just by copying its folder.

B.- LINUX (Ubuntu 18.04)

To begin with we need to open a terminal and update the index of local packages using:

    sudo apt update

To install the Apache2 package on Ubuntu, use the command:

    sudo apt install apache2 -y
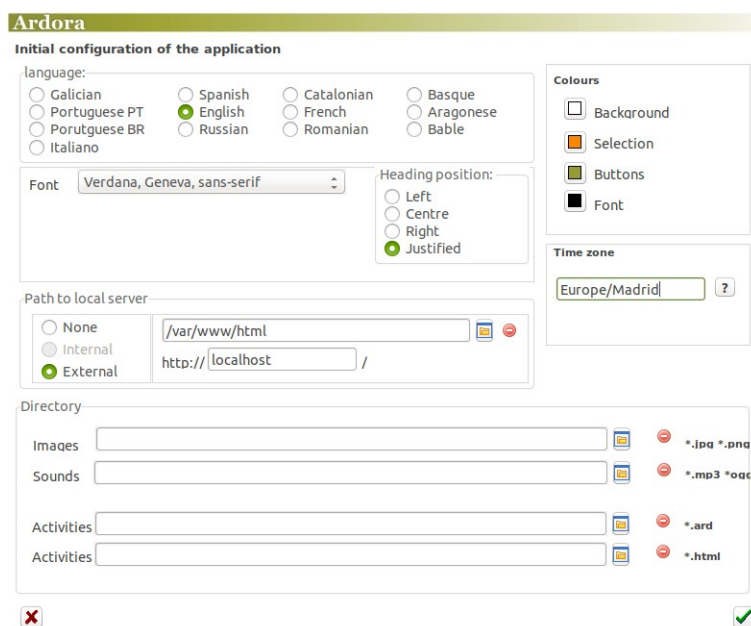
Install PHP:

    sudo apt install php7.2 -y

Then, we need to install a module connecting the Apache server to PHP. Use this command:

    sudo apt-get install libapache2-mod-php
and DOM:
    sudo apt-get install php-dom

Finally, in order to use the server with Ardora, it's advisable to activate the "userdir" module as well, so that all users have a folder where they can host pages and files:

    sudo a2enmod userdir

Now it's time to indicate Ardora the path to the local server: open Ardora and go to the menu "**Utilities-Configurate Ardora**".

In the middle of the window, we must choose the "**External**" option located in the "**Path to local server**" menu and click on the button showing the icon of a folder opening to find the folder "**/var/www/html**" to add it to the field. With the exception of

special cases, in which you must specify a certain port for the server, do not modify the following section (localhost).

It should look something similar to the picture on the left. We only need to restart the computer to activate the server or do it from the terminal using the command:

```
service apache2 restart
```

This should get you ready to work with Ardora. If we wish to test if our server is working, open a browser and, in the address bar, type localhost, in our screen we should see something similar to the image below.
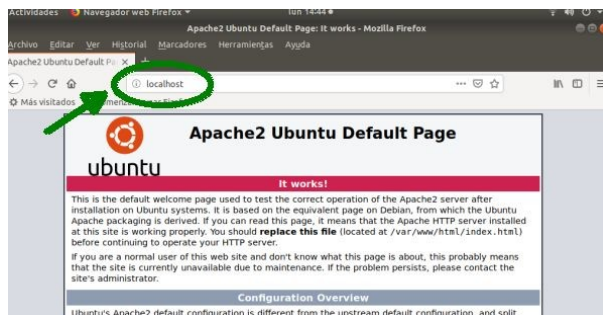

Everything's ready. Optionally, if we want to run our activities, packages or any other web content, to check if it works correctly from a server, we have to copy it to the /var/www/html/ folder, which is the root folder of our server, but as we are not its owners, we are going to have problems placing and running things there, so it will be better to own it so we can access it in the future without problems. We access the file manager as root (be very careful with what you do from now on, because you can disable the whole system), we type in the terminal:
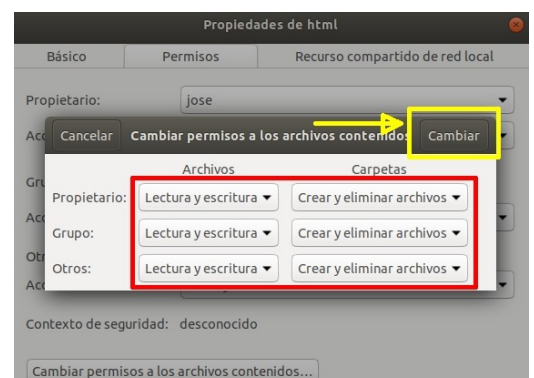
```
sudo nautilus
```
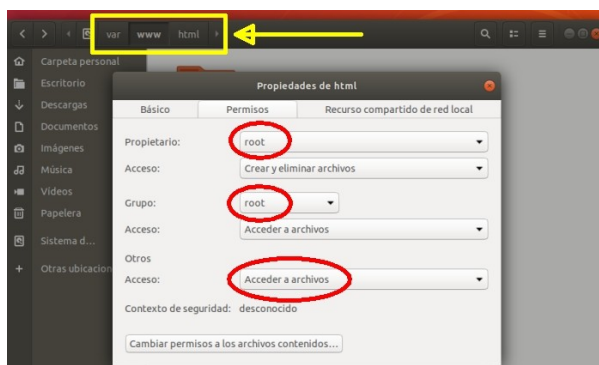

We go to the var/www/html folder and right click on it to select "properties".
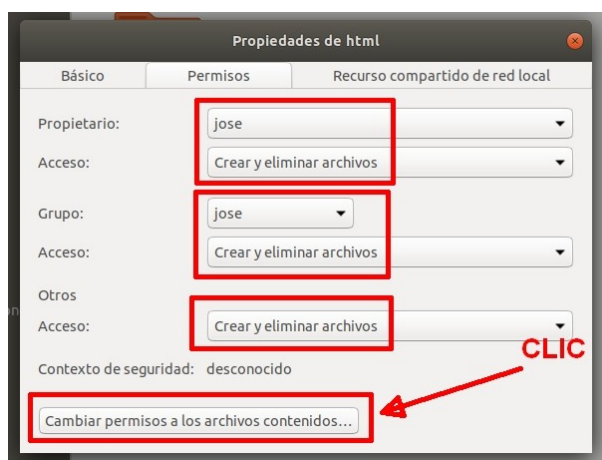
We display the lists and become the owners by choosing our username and allowing everyone to read and write on it.


When you use the button to change the permissions, a pop-up window is displayed that we'll setup as shown in this image.

By clicking on the "change" button, the folder is ready to transfer anything from our user account without any restrictions.

Finally, we can also check the functioning of PHP on our server. By means of "gedit" we create a text file with the following text:

```
<?php
phpinfo()
?>
```

By saving it with the name info.php and placing it inside the server's folder (in: var/www/html/) we only have to open a browser and write in its address bar "localhost/info.php", in the browser we should see something similar to this image:
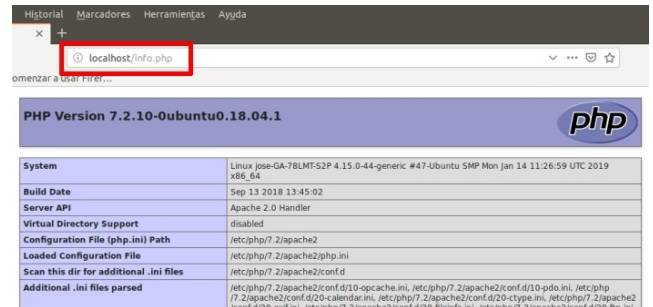
C.- MAC

One of the apps that allows us to install Apache and PHP on a Mac is MAMP; please access https://www.mamp.info/en/downloads/older-versions/ and choose the version of MAMP according to the macOS of your computer. In this case, as we have a Mac OS X
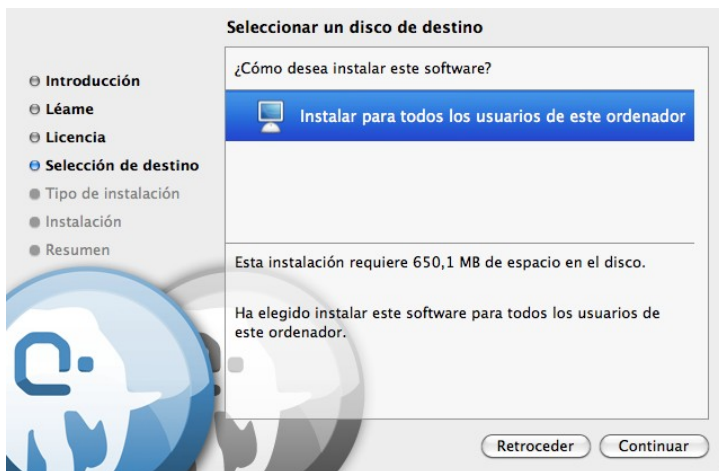
10.6 version we will download the MAMP & MAMP PRO 2.2 version and we will get a zip file. Once downloaded we will double click on it and we will get the MAMP_2_2.pkg file. The System Installer will guide you through the installation process. . After clicking on "continue" to move on to the introduction, read me and license sections (here you need to scroll down to the bottom and accept the license agreement) you will reach the "destination option" window; select "Install for all users of this computer" and click on next.

After reaching the installation mode section you will be asked for your password to install the server. hortly after entering it, the program is ready.

Now we must connect Ardora and MAMP so that everything works correctly.

First go to "Applications", open the MAMP folder and click on MAMP (elephant icon), a window will be displayed (it will probably ask you to enter your password before opening).
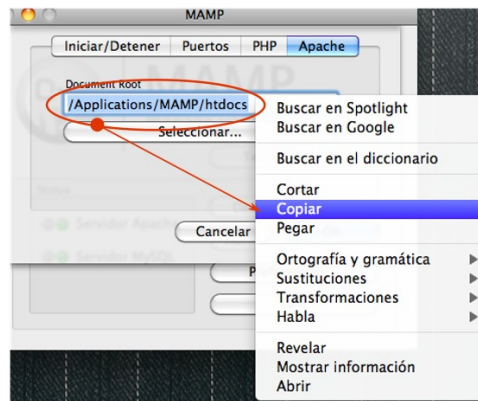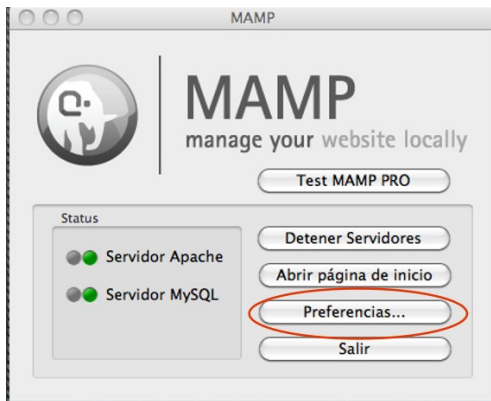
Click on the preferences button and select the "Apache" tab, then mark all the text displayed in "Document Root" and copy it.

Now select the "Ports" option and click on "**Use Apache and MySql default ports**" (the Apache Port section will change from 8888 to 80) and click on Ok. Enter your password if requested to update this change.
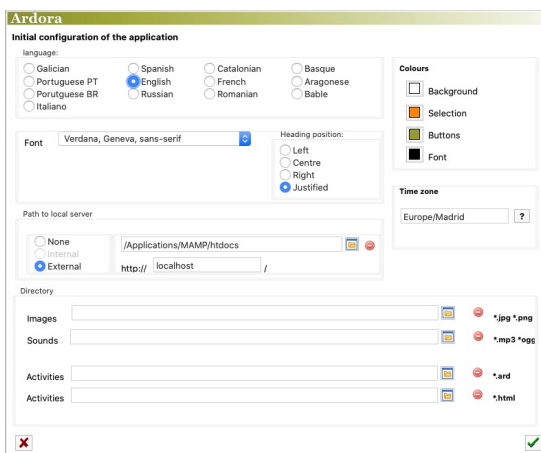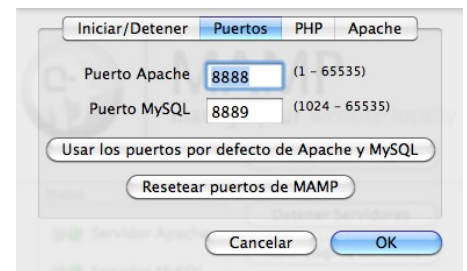
Open Ardora, in the utilities menu - **configurate Ardora**, in the middle of the window, we must choose the " **External**" option located in the "**Path to local server**" and paste the text you have just copied.

If you now preview with Ardora you will see that the URL section of your browser starts with "localhost".

IMPORTANT: At this point, if everything has worked out well, the only thing you should take into account is that, if you have turned off the computer or closed MAMP (or stopped the servers), you should launch the server before starting to work with Ardora; this means, you need to go to Apps, open the MAMP folder and run MAMP (you'll see that the Apache Server and MySql section are with a green light).