

Workshop

Backend & Data Base

Backend developpement

Using PHP and MySQL







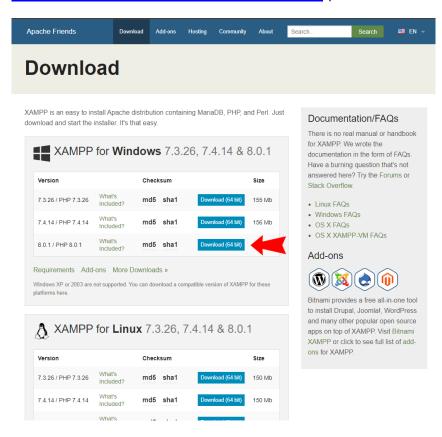
Workshop

language: PHP, SQL

The goal of this workshop is to set up an apache server and run it in your localhost. To do that we'll use the XAMPP software, as well as visual studio code (It is better to use vscode than emacs)

Downloding

https://www.apachefriends.org/download.html (download the latest version)

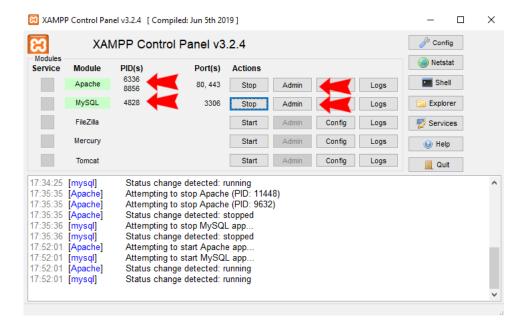


(if you can, download it in the root of C:/)

You may check every boxes when asked

When XAMPP finished the download you'll get something like this:



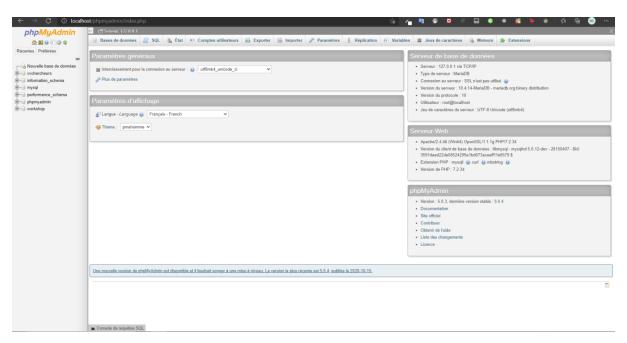


You will press the "start" buttons for Apache and MySQL modules. When it is started you can access both server by clicking on the next button "admin".

You should get something like this:

Once you downloaded XAMPP you need to start both apache and mysql server:

phpMyAdmin:



Apache server (localhost):

Welcome to XAMPP for Windows 7.2.34

You have successfully installed XAMPP on this system! Now you can start using Apache, MariaDB, PHP and other components. You can find more into in the FAQs section or check the HOW.TO Guides for getting started with PHP applications.

XAMPP is meant only for development purposes. It has certain configuration settings that make it easy to develop locally but that are insecure if you want to have your installation accessible to others. If you want have your XAMPP accessible from the internet, make sure you understand the implications and you checked the FAQs to learn how to protect your site. Alternatively you can use WAMP, MAMP or LAMP which are similar packages which are more suitable for production.

Start the XAMPP Control Panel to check the server status

Community

XAMPP has been around for more than 10 years – there is a huge community behind it. You can get involved by joining our Forums, adding yourself to the Mailing List, and liking us on Eacebook, following our exploits on Twitter, or adding us to your Google+ circles.

Contribute to XAMPP translation at translate.apachefriends.org.

Can you help translate XAMPP for other community members? We need your help to translate XAMPP into different languages. We have set up a site, translate apachefriends.org, where users can contribute translations.

Install applications on XAMPP using Bitnami

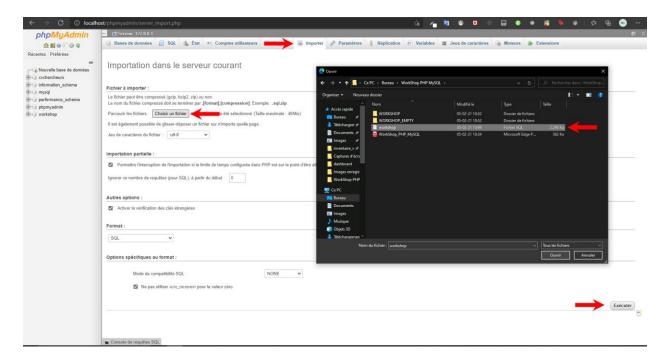
Apache Friends and Bitnami are cooperating to make dozens of open source applications available on XAMPP, for free. Bitnamipackaged applications include Wordpress, Drupal, Joannial and dozens of others and can be deployed with one-click installers. Visit the Bitnami XAMPP page for details on the currently available apps.



Set up

The next step is to setup the provided database.

In the top menu of PHPmyAdmin there's button called "importer".



Click on "choisir un fichier", after that select the workshop.sql provided file in the WorkShop folder.

Then click on execute. This will provide you the database needed for the workshop.

Exercise folder

Next step will this time be about apache server and setting up the files you will work on.

First, go here: C:\xampp\htdocs\dashboard

In that folder you will put the provided "Exercises" folder.

Once it is done you will go on your localhost page (from apache module button on xampp) and paste the following URL :



You should land here:



Welcome

to Mysql and PHP Workshop



Everything is now ready. Before you click on start you obviously should open the Exercises folder from C:\xampp\htdocs\dashboard\Exercises in your vscode.

Step

Your files are corrupted! To repair them, replace the XXXXXX with the correct value (to help you, we put comments on it). For each exercise, you can only change the files called stepXX.php where XX is the exercise number (for instance step1.php).

When you start, you will see an error. For instance...

There was a problem connecting the Database..

Erreu

When you will fix it. You can go to the next step! For instance...

Successfully connected to the database!

Step 2

/!\ If you see a blank page, don't panic. You just called a function incorrectly and need to fix it the parameters.

Step 1

The goal of step one is to fill the gaps to create a connection between the apache server and mysql server (basically it's linking the database to our server).

```
$dbhost = "XXXXXXXX";
$dbuser = "XXXXXXXXX";
$dbpassword = "XXXXXXXXX";
$dbname = "XXXXXXXXX";
```

You will find the information you need both in your phpMyAdmin AND by googling it

Step 2

First thing to do before making our sql query in PHP is to fix the function that will execute our query. This function being "mysqli_query(XXXX, XXXX)" (L20). Once the right parameters are given the blank page will disappear and you may start making the query!

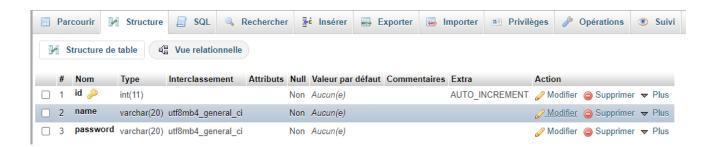
The goal of step 2 is to create a table in your database.

Here is a diagram to show an example of database structure. So this shows multiple tables (orders, users,...) and their rows (id, status,...) being variables (int, varchar,...).



To validate the step 2 you will need to create a table called "tablestep2" in the database "workshop". In this table you will need to create multiple rows in one simple query, written in our step2.php.

The structure of tablestep2 needs to look like this:



An ID row, a "name" row with a length of 20, a "password" row with a length of 20 and a rule (extra) given to the ID row.

Step 3

There are 2 goals in step3. First one is adding data to our "tablestep2" table and the second one being the display of this data.

So, what you need to do is creating one sql query in both functions. The first one will add a single row in your "tablestep2" and the second one will display the whole content of "tablestep2".

Same with second function showContentTable(). You will directly see the result in your browser.

Step 4

This step is about security in mysql database.

What you will need to do is a simple query that adds a row like before BUT this query will be binded.

The goal of this query is just to add a new row but this time with a hashed password.

Regular password: password123

Hashed password: 3fc79ff6a81da0b5fc62499d6b6db7dbf1268328052d2da32badef7f82331dd6

The syntax to execute a binded query is completely different from a simple one (seen in step2 or 3). So, you will need search how to do that in sql.

Step 5

Step5 is about making a much more complex showContentTabel() function from step3.

Just like in step 3 the result of your query will be visible in your browser. But this time you will use the given tables that you may have seen earlier: "z chercheur / compos / unite".

These 3 tables are bigger and more complex than the "tablestep2" table.

You will have to make a query that shows 5 things:

ID from the zunite

Datedebut from zcompos

Idche from zchercheur

Nom from zchercheur

Prenom from zchercheur

Of course, all of this is related. This is about showing a searcher (it's id, name, last name), the start date of his contract with the ID unite.

You will need to find out how to make a specific query that shows data from different tables <u>and</u> with conditions (WHERE, AND,...)

Whiteout conditions you will get thousands of results (you selected all searchers from all units). Conditions are:

- Zchercheur's id is zcompos's refche AND zunite's id is zcompos's refunite
- Where zcompos's ordre is 1
- Where zcompos's responsible is NOT 'Dci' and 'Dce'
- Ordered in ascendant
- Only 25 rows

What you need to get (only first 5 of the 25 results are shown):

ld Date début		ld du chercheur		Nom Prénom
ULB000	2019-02-21	1	ROSIC	Elizabeth
ULB021	0000-00-00	3177	JAUMAIN	Serge
ULB021	2018-11-08	50498	CARATI	Daniele
ULB052	0000-00-00	4292	DEFALQUE	Lucette
ULB053	0000-00-00	3440	VAN GYSEL	Alain-Charle 🗸

Step 6

Similar to step 3 but this time it's about deleting and not adding!

Step 7

Step 7 is about Doing a http request in JS from a sql query made in php through a droplist. (Done together)