



## 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)

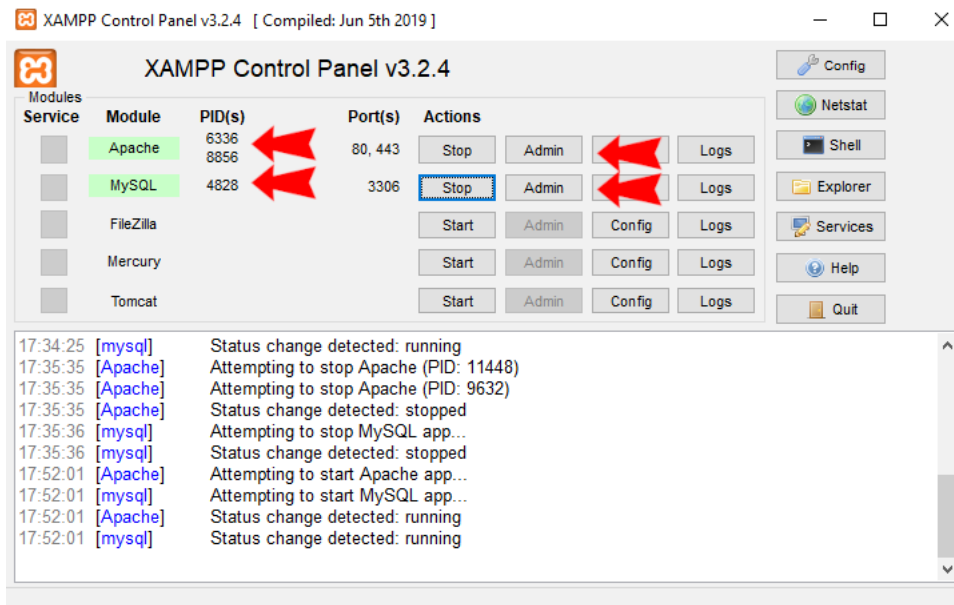
## Downlodng

<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 :

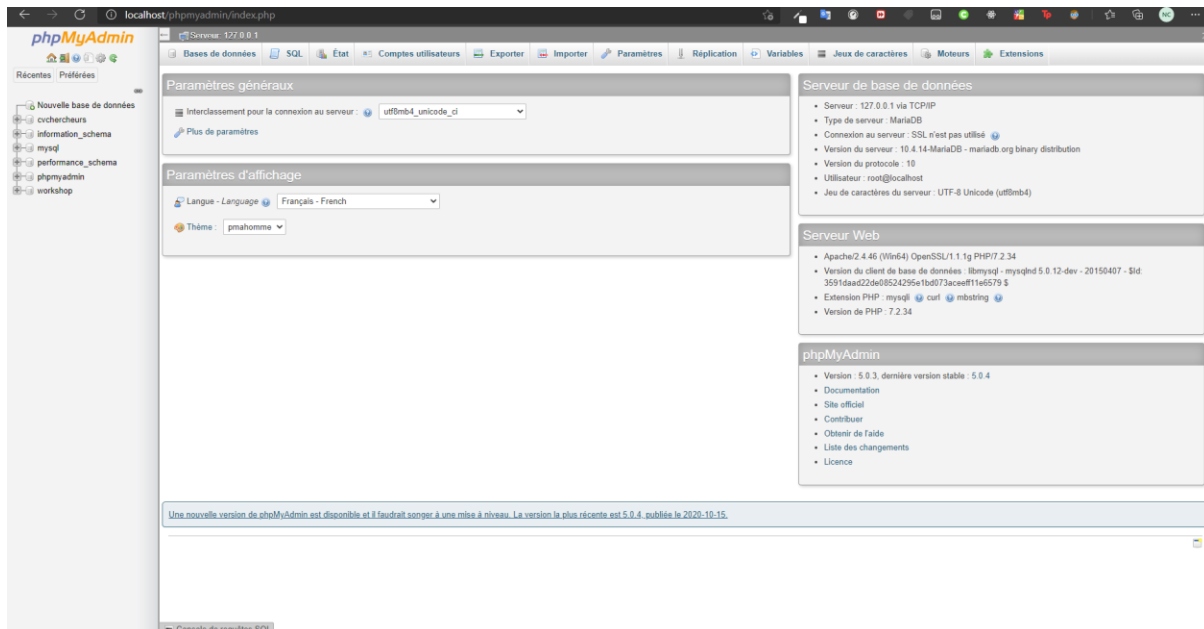


You will press the “start” buttons for Apache and MySQL modules. When it is started you can access both server by clicking on the next button “admin”.

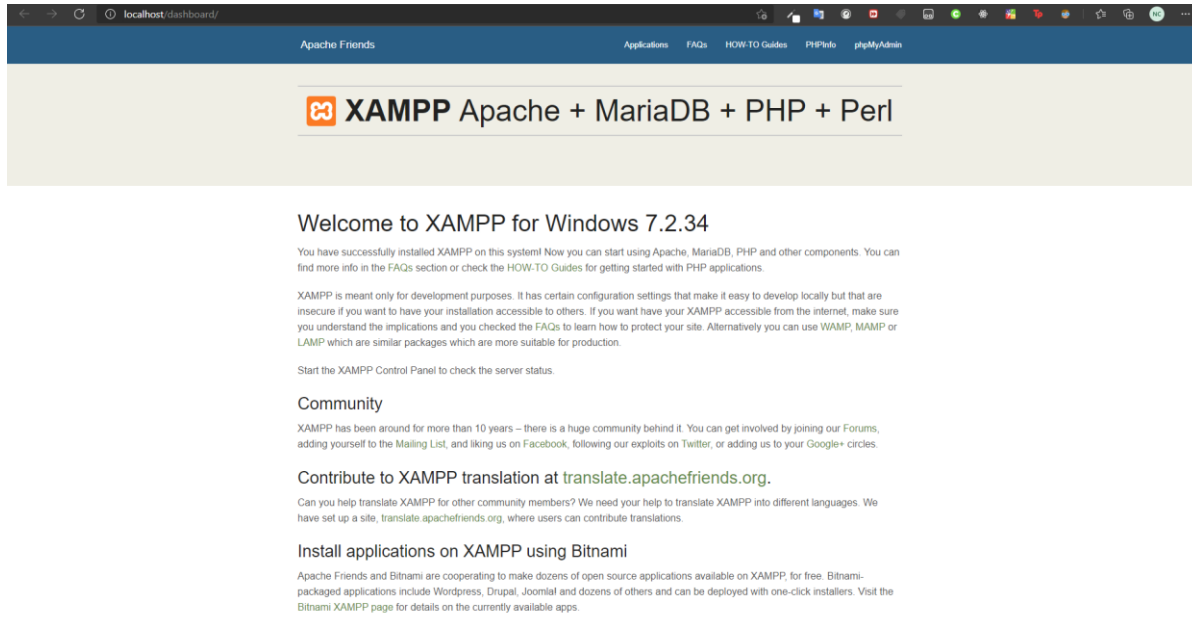
You should get something like this:

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

phpMyAdmin:



Apache server (localhost):

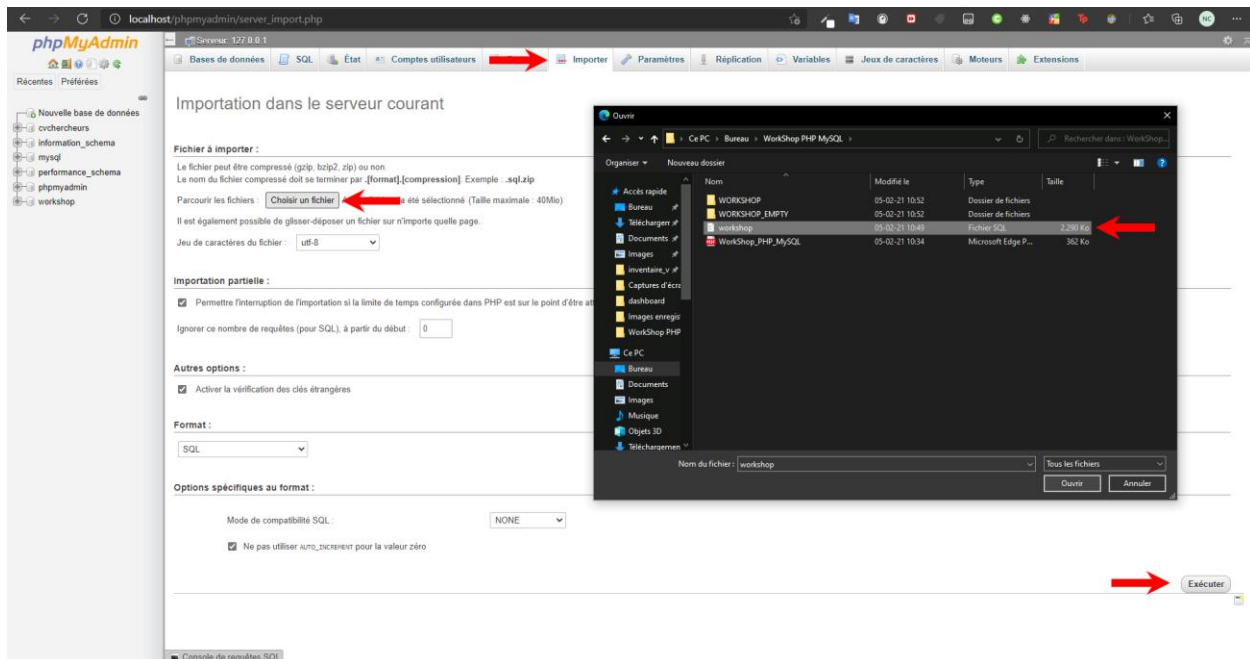




## Set up

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

Start

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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..

Erreur

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 = "XXXXXXXX";  
$dbpassword = "XXXXXXXX";  
$dbname = "XXXXXXXX";
```

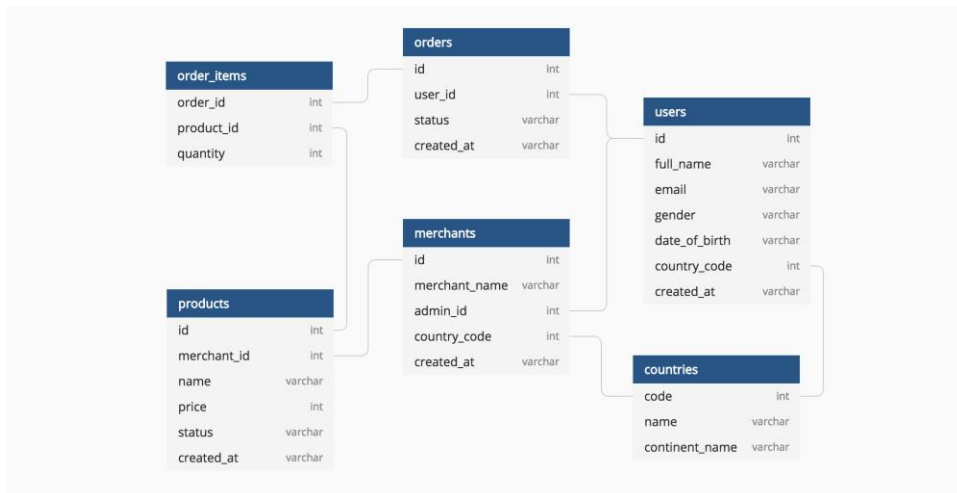
You will find the information you need both in your phpMyAdmin AND by googling it

## 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:

#	Nom	Type	Interclassement	Attributs	Null	Valeur par défaut	Commentaires	Extra	Action
<input type="checkbox"/> 1	id	int(11)			Non	Aucun(e)		AUTO_INCREMENT	Modifier  Supprimer  Plus
<input type="checkbox"/> 2	name	varchar(20)	utf8mb4_general_ci		Non	Aucun(e)			Modifier  Supprimer  Plus
<input type="checkbox"/> 3	password	varchar(20)	utf8mb4_general_ci		Non	Aucun(e)			Modifier  Supprimer  Plus

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: *3fc79ff6a81da0b5fc62499d6b6db7dbf1268328052d2da32bade7f782331dd6*

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 z unite

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 and with conditions (WHERE, AND,...)

Without conditions you will get thousands of results (you selected all searchers from all units). Conditions are:

- Zchercheur's id is zcompos's refche AND z unite'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):

Id	Date début	Id 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)