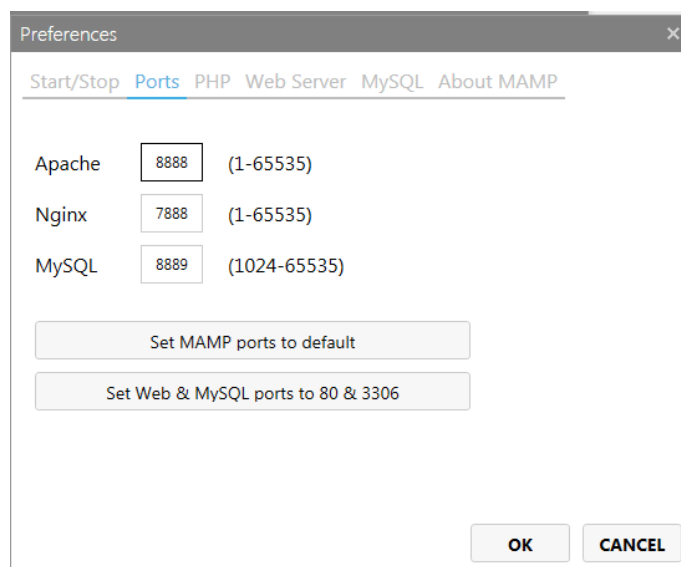


AIT-Lab-03 (Exercises 7-9) By Amir Ebrahimi

Mamp is used as a server. Hence there is no need to install PHP bundle and MySQL. At first, "**DocumentRoot** **"F:\MAMP\cgi-bin"**" line should be changed to "**DocumentRoot** **"F:\MAMP\htdocs"**" line in the **httpd.conf** file since in the first lab we changed it in order to compile c++ file. **Phpinfo()** function is called in a php file, named **php test**, in the **htdocs**, and the server is restarted. If we go to the **homepage**, forbidden error will be appeared without the address (You don't have permission to access / on this server). The name of the file is changed to **index.php**, and it will be worked without the address. The reason is that file as the main page has to be called index in the directory and nothing else.



MySQL Workbench is installed. When Mamp is running, we can connect to the database. The ports used in Mamp is editable in the ports tabs in the preferences or in the httpd.conf file in the /conf/apache directory.



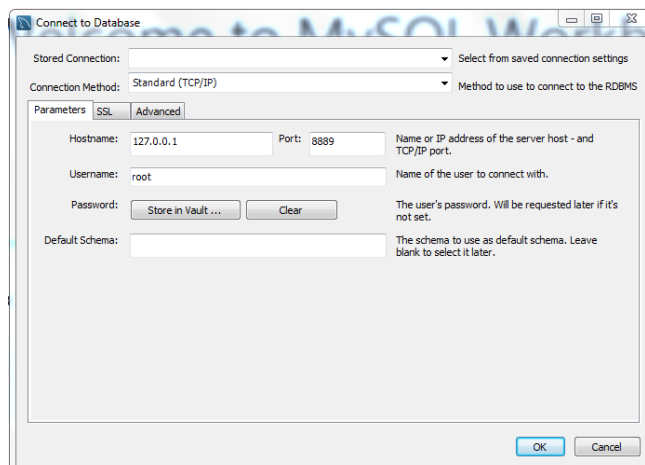
The username and password for accessing the database is accessible in the `config.inc.php` file in the `/bin/phpMyAdmin` directory.

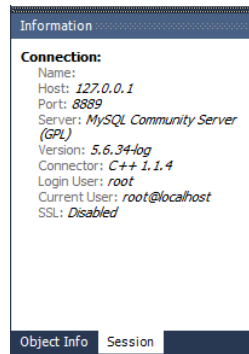
```
46  /*
47  * First server
48  */
49  $i++;
50  /* Authentication type */
51  $cfg['Servers'][$i]['auth_type'] = 'config';
52  /* Server parameters */
53  $cfg['Servers'][$i]['host'] = 'localhost';
54  $cfg['Servers'][$i]['connect_type'] = 'tcp';
55  $cfg['Servers'][$i]['compress'] = false;
56  /* Select mysql if your server does not have mysqli */
57  $cfg['Servers'][$i]['extension'] = 'mysqli';
58  $cfg['Servers'][$i]['AllowNoPassword'] = false;
59  $cfg['Servers'][$i]['port'] = '8889'; // MySQL port
60  $cfg['Servers'][$i]['user'] = 'root'; // MySQL user
61  $cfg['Servers'][$i]['password'] = 'root'; // MySQL password
62
```

Also the information of the MySQL is in the `/MAMP`:

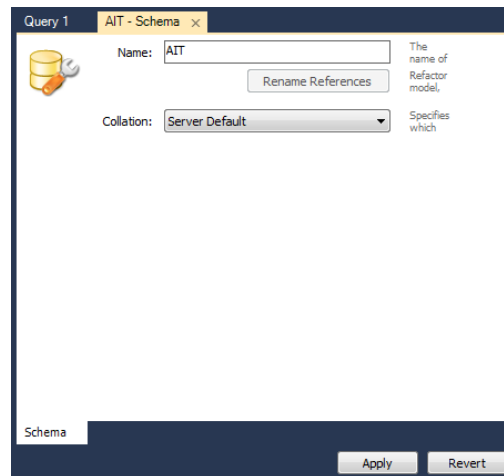


As it is shown in the picture, port is `8889`, username is `root`, and password is `root`. Now it is time to access the database in the MySQL Workbench.

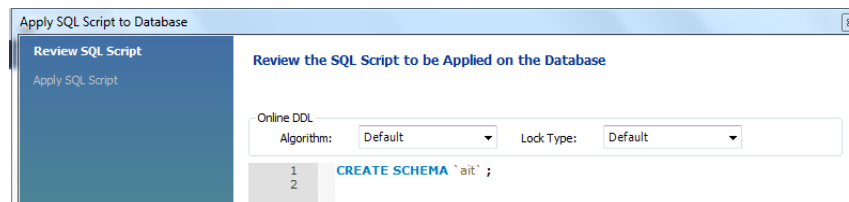




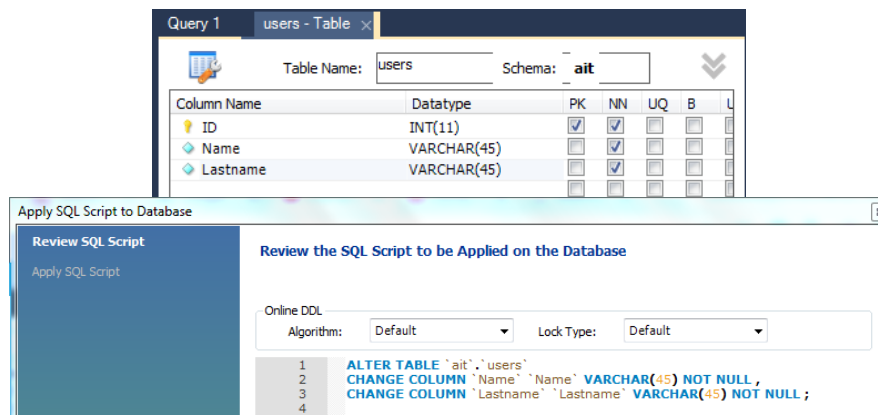
There is a button, named create a new schema in the connected server, for creating a database called AIT.



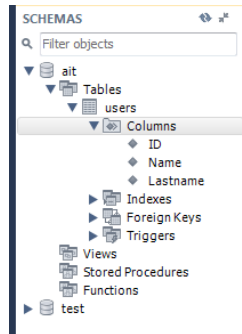
This is just a GUI. Hence, there is a need to apply the SQL scripts for everything. Also it seems that the name should be saved in lowercase.



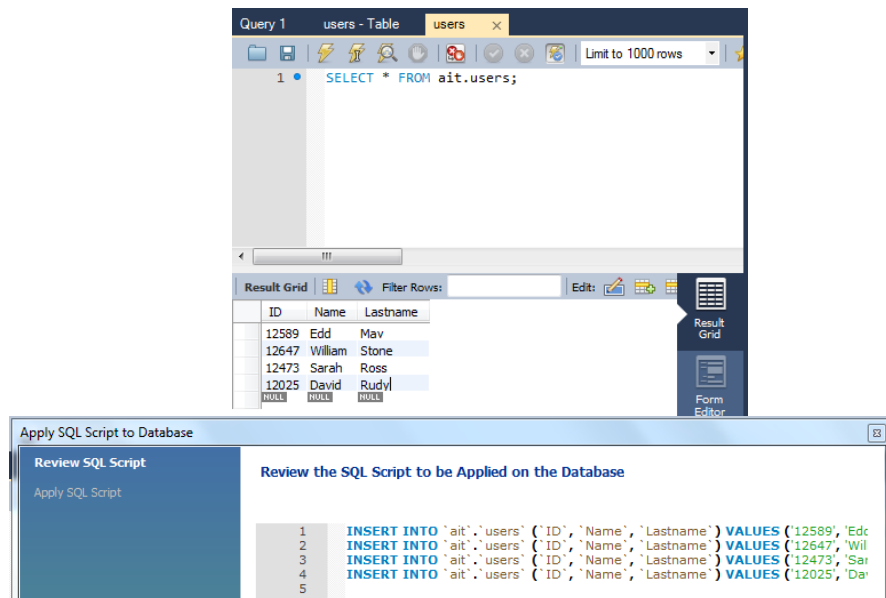
A table, called users, with ID, Name, and Lastname columns is added.



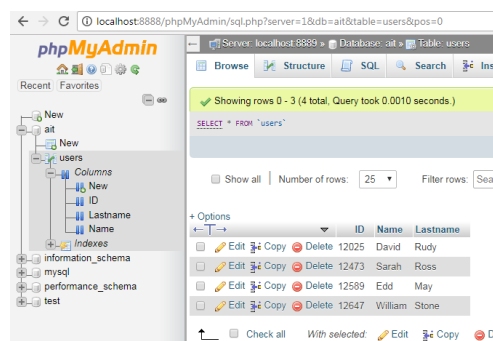
Third Lab- by Amir(aebraimi@unibz.it)



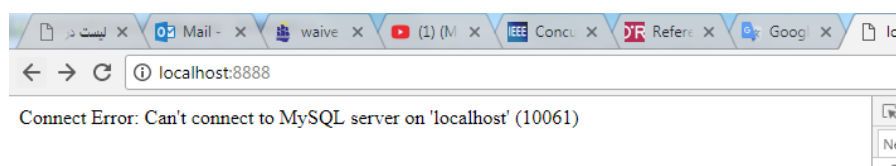
It is time to add some records in the table.



Also, the database is accessible from **phpMyAdmin**, and we can get query from the **console** of it:

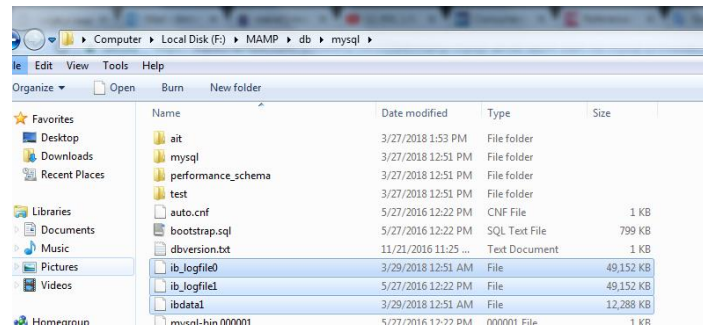


At first, **mysqli**, **select_db**, and **query** are used but they do not work properly.



Third Lab- by Amir(aebrahimi@unibz.it)

I searched a lot about it. Someone tells that we should delete something from /MAMP/db/mysql:



Or adding a new environment variable, named MAMP_MYSQL with the value of the bin directory of mysql in the MAMP/bin or adding it in the PATH variable. As I understood considering the **port number** and one **database** are required. It is possible to mention one database by default at first, and then change it to another one.

mysqli_real_connect, **mysqli_select_db**, **mysqli_query**, and **mysqli_close** are used. In the class of Connector, two variables, named **link** and **succCon** are defined. In the **constructor**, **link** should be **initialized**. The variable of link is too important for the methods. Four methods are used:

```
1 <?php
2 class Connector
3 {
4     public $link;
5     public $succCon;
6     public function __construct()
7     {
8         $this->link = mysqli_init();
9     }
10    public function connect($user, $password, $db, $host, $port)
11    {
12    }
13    public function chooseDB($dbname)
14    {
15    }
16    public function queryDB($query)
17    {
18    }
19    public function close()
20    {
21    }
22 }
```

In the **connect** function, five parameters are required. Port number and db are additional rather than the proposed parameters of the connect in the instruction. As it is shown, link is one of the parameters of **mysqli_real_connect**.

```
public function connect($user, $password, $db, $host, $port)
{
    $this->succCon = mysqli_real_connect(
        $this->link,
        $host,
        $user,
        $password,
        $db,
        $port
    );

    if (!$this->link)
    {
        die("mysqli_init failed");
    }

    if (!$this->succCon)
    {
        die("Connect Error: " . mysqli_connect_error());
    }
}
```

link is used as a parameter of `mysqli_select_db` in the `chooseDB` function:

```
public function chooseDB($dbname)
{
    $selectDb = mysqli_select_db($this->link, $dbname);
    if (!$selectDb)
    {
        die("Error in Selecting DB: " . mysqli_error($this->link));
    }
}
```

one string which is the query and link are the parameters of `mysqli_query` in the `queryDB` function. The results are stored in an `array`. It is shown in a table.

```
public function queryDB($query)
{
    $result = mysqli_query($this->link, $query);
    if (!$result)
    {
        die("Error in Query: " . mysqli_error($this->link));
    }

    echo "<table><tr><th>ID</th><th>Name</th><th>Lastname</th></tr>";
    while($row = mysqli_fetch_array($result, MYSQLI_ASSOC))
    {
        echo "<tr><td>".$row["ID"]."</td><td>".$row["Name"]."</td><td>".$row["Lastname"]."</td></tr>";
    }
    echo "</table>";
    mysqli_free_result($result);
}
```

Close function:

```
public function close()
{
    mysqli_close($this->link);
}
```

The class is saved in a php file, named `connector.php`. In another php file, named `client.php`, we should include the first php file, and create an instance of that class, and call the functions. A CSS file is included in a style tag.

```
<style>
<?php include 'styles.css'; ?>
</style>

<?php
include 'connector.php';

$connectorObject = new Connector;
$connectorObject->connect('root', 'root', 'test', 'localhost', 8889);
$connectorObject->chooseDB('ait');
$connectorObject->queryDB("SELECT * FROM users");
$connectorObject->close();
```

As it is told, the third parameter of the connect function (**database name**) is not important. In the `chooseDB` function we can change it. If wrong parameter is entered for each function. The appropriate error should be appeared.

```
<style>
<?php include 'styles.css'; ?>
</style>

<?php
include 'connector.php';

$connectorObject = new Connector;
$connectorObject->connect('root', 'root', 'test', 'localhost', 5555);
// $connectorObject->chooseDB('ait');
// $connectorObject->queryDB("SELECT * FROM users");
// $connectorObject->close();
```

← → ↻ ⓘ localhost:8888/client.php

Connect Error: Can't connect to MySQL server on 'localhost' (10061)

```
<style>
<?php include 'styles.css'; ?>
</style>

<?php
include 'connector.php';

$connectorObject = new Connector;
$connectorObject->connect('root', 'root', 'test', 'localhost', 8889);
$connectorObject->chooseDB('aitttt');
// $connectorObject->queryDB("SELECT * FROM users");
// $connectorObject->close();
```

← → ↻ ⓘ localhost:8888/client.php

Error in Selecting DB: Unknown database 'aitttt'

```
<style>
<?php include 'styles.css'; ?>
</style>

<?php
include 'connector.php';

$connectorObject = new Connector;
$connectorObject->connect('root', 'root', 'test', 'localhost', 8889);
$connectorObject->chooseDB('ait');
$connectorObject->queryDB("SELECT * FROM user");
// $connectorObject->close();
```

← → ↻ ⓘ localhost:8888/client.php

Error in Query: Table 'ait.user' doesn't exist

The output:

← → ↻ ⓘ localhost:8888/client.php

ID	Name	Lastname
12025	David	Rudy
12473	Sarah	Ross
12589	Edd	May
12647	William	Stone