



W12 – PHP – Web Programming II

Connection to a Database - PDO

Introduction

- **MYSQL** (Original)
 - obsolete extension since PHP 5.5.0 and removed since PHP 7.0.0.
 - use mysqli extension or PDO_MySQL instead
- **MYSQLI**(Improve)
 - extension of the native mysql driver (mysqlnd)
- **PDO** (PHP Data Object)
 - standard Object interface (like JDBC API) to connect to mysql or other databases.
 - method will be presented during this course

Procédure connexion

- Initializing the connection
- load the query
- load the parameters
- execute the query with the parameters
- recover data in a slider
- close the cursor

Preparing SELECT / SELECT

```
// 1 - preparer la connexion
$connectionDb = new
PDO('mysql:host=127.0.0.1:3306;dbname=cla
s
se;charset=utf8','root','abc123...' );

// 2 - prepare the query
$result = $connectionDb->prepare("select
*
from student");

// 3 - add the parameters (inutil)

// 4 - run the query and retrieve the
cursor
$result->execute();

// 5 fetch data line by line
while ($line = $result->fetch()){
// echo line by line
echo $line['id'] . "<br />";
echo $line['firstName'] . "<br />";
}
//close the cursor
$result->closeCursor();
```

```
// 1 - preparer la connexion
$connectionDb = new
PDO('mysql:host=127.0.0.1:3306;dbname=cla
ss
e;charset=utf8','root','abc123...' );

// 2 - preparer la query
$result = $connectionDb->prepare("select
*
from student where id = ? and ispresent
= ?");

// 3-4 - add the parameters (here no params)
and execute
$result->execute([4, 1]);
//$result->execute(array(4, 1)); // meme
Chose

// 5 fetch data line by line
while ($line = $result->fetch()){
// echo line by line
echo $line['id'] . "<br />";
echo $line['firstName'] . "<br />";
}
//close the cursor
$result->closeCursor();
```

Adding Parameters

```
$result = $connectionDB->prepare("select * from studebt where id = ? and  
ispresent = ?");  
$result->execute([4, 1]);
```

```
$result = $connectionBd->prepare("select * from student where id = :studentId and  
ispresent = :present");  
$result->execute([  
    "studentId" => 4,  
    "present" => 1  
]);
```

INSERT

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
<title>Title</title>
</head>
<body>
<form
action="insertData.php"
method="post">
  FirstName <input
type="text"
name="firstName" />
  <input type="submit"
value="OK" />
</form>
</body>
</html>
```

```
/test params
if(isset($_POST['firstName'])){
  //connect to db
  $connectionDb = new
PDO('mysql:host=127.0.0.1:3306;dbname=classe;ch
arset=utf8','root','abc123...');

  // preparer la query
  $result = $connectionDb->prepare('insert
into student (firstName) value (:firstName)');

  //add params to post
  $result->execute(['firstName'=>
$_POST['firstName']]);

  //get last insert Id
  echo $connectionDb ->lastInsertId();

  //close the cursor
  $result->closeCursor();

  //redirect towards index page
  header("Location: index.php");
}
```

UPDATE / DELETE

- It's the same thing only the query will change

Stored Procedures

- Create procedures in mysql_worbench
- Use stored_procedure instead of select
- See documentation on [PDO](#)

```
$connectionDb = new
PDO('mysql:host=127.0.0.1:3306;dbname=classe;charset=utf8','root','abc123...' );

// 2 - prepare the query
$result = $connectionDb->prepare("CALL getAll()");

// 4 - execute the query and retrieve the cursor
$result->execute();

// 5 fetch data line by line
while ($line = $result->fetch()){
// display data line by line
echo $line['id'] . "<br />";
echo $line['firstName'] . "<br />";
}
//close the cursor
$result->closeCursor();
```