

Exercícios em PHP

Thiago H. P. Silva

Instalação

- LAMP: Linux + Apache + MySQL + PHP
 1. `ctrl+alt+t`
 2. `sudo apt-get install tasksel`
 3. `sudo tasksel install lamp-server`
 4. `sudo chmod 777 /var/www/html/`
 5. `echo "<?php print \"oi\"; ?>" > /var/www/html/teste.php`
 6. Abra o navegador e insira o seguinte endereço:
 - `localhost/teste.php`

Instalação

- MySQL

1. `ctrl+alt+t`
2. `sudo mysql -u root`
3. `CREATE USER 'aluno'@'%' IDENTIFIED BY 'teste$123';`
4. `FLUSH PRIVILEGES;`
5. `EXIT;`

Instalação

- MySQL Workbench

1. <https://dev.mysql.com/downloads/workbench/>
2. Selecione a versão do seu Linux (ctrl+alt+t →uname -a)
3. Faça o download
4. ctrl+alt+t
5. sudo dpkg -i <arquivo.deb>
6. Teve dependências?
 - sudo apt-get install <dependência>
7. Abra o MySQL Workbench
 - Crie uma nova conexão
 - Username: **aluno**
 - Senha: **teste\$123**

MySQL Connections  



Successfully made the MySQL connection

Information related to this connection:



[Jobs Indeed](#)

Histórico

- Conexões para um servidor de banco de dados MySQL
 1. **mysql**
 - Pacote de funções (descontinuado no PHP7)

Histórico

- Conexões para um servidor de banco de dados MySQL

1. **mysql**

- Pacote de funções (descontinuado no PHP7)

2. **mysqli**

- MySQL Improved Extension
- Extensão da API mysql

Histórico

- Conexões para um servidor de banco de dados MySQL
 1. **mysql**
 - Pacote de funções (descontinuado no PHP7)
 2. **mysqli**
 - MySQL Improved Extension
 - Extensão da API mysql
 3. **PDO**
 - PHP Data Objects
 - Interface → lightweight & consistent interface
 - Accessing databases in PHP

mysqli

- PHP application → MySQL database
- API
 - Classes, methods, functions and variables
 - PHP extensions

mysqli

- PHP application → MySQL database
- API
 - Classes, methods, functions and variables
 - PHP extensions
- Paradigmas
 - Procedural
 - Orientado a objetos

mysqli

- PHP application → MySQL database
- API
 - Classes, methods, functions and variables
 - PHP extensions
- Paradigmas
 - Procedural
 - Orientado a objetos

mysqli

Antes

```
$mysql = mysql_connect("example.com", "user", "password");  
mysql_select_db("test");  
$result = mysql_query("SELECT 'Use the mysqli extension instead.' AS _msg FROM DUAL", $mysql);  
$row = mysql_fetch_assoc($result);  
echo $row['_msg'];
```

mysqli

Antes

```
$mysql = mysql_connect("example.com", "user", "password");  
mysql_select_db("test");  
$result = mysql_query("SELECT 'Use the mysqli extension instead.' AS _msg FROM DUAL", $mysql);  
$row = mysql_fetch_assoc($result);  
echo $row['_msg'];
```

Agora

```
$mysqli = mysqli_connect("example.com", "user", "password", "database");  
$result = mysqli_query($mysqli, "SELECT 'Please do not use the deprecated mysql extension for new development. ' AS _msg FROM DUAL");  
$row = mysqli_fetch_assoc($result);  
echo $row['_msg'];
```

mysqli: Procedural & object-oriented interface

```
$mysqli = mysqli_connect("example.com", "user", "password", "database");  
  
$result = mysqli_query($mysqli, "SELECT 'A world full of ' AS _msg FROM DUAL");  
$row = mysqli_fetch_assoc($result);  
echo $row['_msg'];
```

```
$mysqli = new mysqli("example.com", "user", "password", "database");  
  
$result = $mysqli->query("SELECT 'choices to please everybody.' AS _msg FROM DUAL");  
$row = $result->fetch_assoc();  
echo $row['_msg'];
```

mysqli: Conexão

```
<?php  
  
$mysqli = new mysqli("localhost", "aluno", "teste$123");  
  
echo "Info 1: ".$mysqli->host_info . "<br>";  
  
$mysqli = new mysqli("127.0.0.1", "aluno", "teste$123",  
"", 3306);  
  
echo "Info 2: ".$mysqli->host_info . "<br>";  
  
?>
```

← → ↻ ⓘ localhost/teste.php

Info 1: Localhost via UNIX socket

Info 2: 127.0.0.1 via TCP/IP

mysql: Consulta

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0,01 sec)

mysql> █
```


mysqli: Consulta

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0,01 sec)

mysql> █
```

```
<?php
mysqli_report(MYSQLI_REPORT_ERROR | MYSQLI_REPORT_STRICT);

$mysqli = new mysqli("localhost", "aluno", "teste$123");

$result = $mysqli->query("show databases;");

var_dump($result);

?>
```

mysqli: Consulta

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0,01 sec)

mysql> █
```

```
<?php
mysqli_report(MYSQLI_REPORT_ERROR | MYSQLI_REPORT_STRICT);

$mysqli = new mysqli("localhost", "aluno", "teste$123");

$result = $mysqli->query("show databases;");

var_dump($result);

?>
```

- Como o resultado é armazenado em \$result?
 - Verifique com **foreach (\$result as...**
 - Crie uma tabela para mostrar o resultado de forma similar ao do terminal

mysqli: Consulta

```
<?php
mysqli_report(MYSQLI_REPORT_ERROR | MYSQLI_REPORT_STRICT);

$mysqli = new mysqli("localhost", "aluno", "teste$123");

$result = $mysqli->query("show databases;");

var_dump($result);
echo "<br><br><table border='2'><tr><th>Database</th></tr>";

foreach ($result as $row) {
    echo "<tr><td>". $row["Database"] . "</td></tr>";
}
echo "</table>";

?>
```

localhost/teste.php Update

object(mysqli_result)#2 (5) { ["current_field"]=> int(0) ["field_count"]=> int(1) ["lengths"]=> NULL ["num_rows"]=> int(4) ["type"]=> int(0) }

Database
information_schema
mysql
performance_schema
sys

PDO

PDO

- PHP Data Objects
- Database abstraction layer

PDO

- PHP Data Objects
- Database abstraction layer
 - Clean
 - Simple
 - Portable API

Só vantagens???

PDO

Driver name	Supported databases
PDO_CUBRID	Cubrid
PDO_DBLIB	FreeTDS / Microsoft SQL Server / Sybase
PDO_FIREBIRD	Firebird
PDO_IBM	IBM DB2
PDO_INFORMIX	IBM Informix Dynamic Server
PDO_MYSQL	MySQL 3.x/4.x/5.x
PDO_OCI	Oracle Call Interface
PDO_ODBC	ODBC v3 (IBM DB2, unixODBC and win32 ODBC)
PDO_PGSQL	PostgreSQL
PDO_SQLITE	SQLite 3 and SQLite 2
PDO_SQLSRV	Microsoft SQL Server / SQL Azure

Fonte: <https://www.php.net/manual/en>

PDO

- PHP Data Objects
- Database abstraction layer
 - Clean
 - Simple
 - Portable API

Só vantagens???

→ Como lidar com avanços tecnológicos de BD (e.g., multiple statements)?

Deve-se usar database-specific PDO driver para acessar o servidor de BD

Comparison of MySQL API options for PHP

	PHP's mysqli Extension	PDO (Using PDO MySQL Driver and MySQL Native Driver)
PHP version introduced	5.0	5.0
MySQL development status	Active development	Active development
API supports Charsets	Yes	Yes
API supports server-side Prepared Statements	Yes	Yes
API supports client-side Prepared Statements	No	Yes
API supports Stored Procedures	Yes	Yes
API supports Multiple Statements	Yes	Most
Supports all MySQL 4.1+ functionality	Yes	Most

Fonte: <https://www.php.net/manual/en>

PDO - Conexão

```
<?php  
$dbh = new PDO('mysql:host=localhost;', "aluno", "teste$123");  
?>
```

PDO - Conexão

```
<?php

$dbh = new PDO('mysql:host=localhost;', "aluno", "teste$123");

?>
```

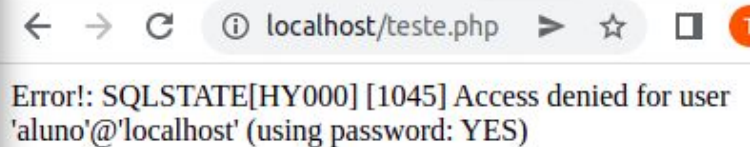
```
<?php

try {
    $dbh = new PDO('mysql:host=localhost;', "aluno",
"teste$123");
} catch (PDOException $e) {
    print "Error!: " . $e->getMessage() . "<br/>";
    die();
} finally {
    echo "OK";
}

?>
```

PDO - Conexão

```
<?php
try {
    $dbh = new PDO('mysql:host=localhost;', "aluno",
"teste$1234");
} catch (PDOException $e) {
    print "Error!: " . $e->getMessage() . "<br/>";
    die();
} finally {
    echo "OK.";
}
?>
```



A screenshot of a web browser window. The address bar shows 'localhost/teste.php'. The main content area displays an error message: 'Error!: SQLSTATE[HY000] [1045] Access denied for user 'aluno'@'localhost' (using password: YES)'. The browser interface includes back, forward, and refresh buttons, as well as a star icon for bookmarks.

Error!: SQLSTATE[HY000] [1045] Access denied for user
'aluno'@'localhost' (using password: YES)

PDO - Consulta

```
<?php

try {
    $dbh = new PDO('mysql:host=localhost;', "aluno",
"teste$123");
} catch (PDOException $e) {
    print "Error!: " . $e->getMessage() . "<br/>";
    die();
}

try {
    $data = $dbh->query('show databases');
    foreach($data as $row) {
        print_r($row);
    }
} catch (PDOException $e) {
    print "Error!: " . $e->getMessage() . "<br/>";
    die();
}

?>
```

PHP+MySQL

1. C
2. R
3. U
4. D

PHP+MySQL

1. CREATE
2. READ
3. UPDATE
4. DELETE

PHP+MySQL

1. Create

- Tarefa: armazenar o nome e a idade de indivíduos

nome	idade
Ana	10
Bia	22

...

PHP+MySQL

1. Create

- Tarefa: armazenar o nome e a idade de indivíduos

nome	idade
Ana	10
Bia	22
...	