**Exercise 11.8 – MySQL Through PHP**

* PHP Function Documentation & References
  + define(), <http://php.net/manual/en/function.define.php>
  + PDO class, <http://php.net/manual/en/class.pdo.php>
    - A connection between PHP and a database server
    - PDO -> setAttribute()
    - PDO -> query($query-string)
  + PDOException class, <http://php.net/manual/en/class.pdoexception.php>
  + Mysqli Procedures
    - mysqli\_connect(DBHOST, DBUSER, DBPASS, DBNAME), <http://php.net/manual/en/function.mysqli-connect.php>
    - mysqli\_query($connection, $sql), <http://php.net/manual/en/mysqli.query.php>
    - mysqli\_fetch\_assoc($reslts), <http://php.net/manual/en/function.mysql-fetch-assoc.php>
    - mysqli\_free\_result($result), <http://php.net/manual/en/mysqli-result.free.php>
    - mysqli\_close($connection), <http://php.net/manual/en/mysqli.close.php>
* Open phpMyAdmin
* Click on art database
* Click Privileges
  + Add User Account
    - User name: testuser
    - Host Name: localhost
    - Password: secret
    - Retype Password:
* phpMySQL displays
  + CREATE [USER](http://localhost/phpmyadmin/url.php?url=https://dev.mysql.com/doc/refman/5.5/en/information-functions.html#function_user) 'testuser'@'localhost' IDENTIFIED VIA mysql\_native\_password USING '\*\*\*';GRANT ALL PRIVILEGES ON \*.\* TO 'testuser'@'localhost' REQUIRE NONE WITH GRANT OPTION MAX\_QUERIES\_PER\_HOUR 0 MAX\_CONNECTIONS\_PER\_HOUR 0 MAX\_UPDATES\_PER\_HOUR 0 MAX\_USER\_CONNECTIONS 0;GRANT ALL PRIVILEGES ON `art`.\* TO 'testuser'@'localhost';
* Open config.php using Notepad++ and make following changes
* Create lab11 folder under htdocs
* Move those two files to
  + C:\xampp\htdocs\lab11

<?php

//config.php - lab11-exercise08-mysqli.php

define('DBHOST', 'localhost');

define('DBNAME', 'art');

define('DBUSER', 'testuser');

define('DBPASS', 'secret');

define('DBCONNSTRING','mysql:host=localhost;dbname=art');

?>

//lab11-exercise08-pdo.php

<?php require\_once('config.php'); ?>

<!DOCTYPE html>

<html>

<body>

<h1>Database Tester (PDO)</h1>

<?php

try {

$pdo = new PDO(DBCONNSTRING,DBUSER,DBPASS);

$pdo->setAttribute(PDO::ATTR\_ERRMODE, PDO::ERRMODE\_EXCEPTION);

$sql = "select \* from Artists order by LastName";

$result = $pdo->query($sql);

while ($row = $result->fetch()) {

echo $row['ArtistID'] . " - " . $row['LastName'] . "<br/>";

}

$pdo = null;

}

catch (PDOException $e) {

die( $e->getMessage() );

}

?>

</body>

</html>

Running Results

Case 1: Run the lab11-exercise08-pdo.php

<http://localhost/lab11/lab11-exercise08-pdo.php>

**Database Tester (PDO)**

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

Case 2: After add a user account, add needed privileges, then modify the **config.php** with needed user name and password:

<http://localhost/lab11/lab11-exercise08-pdo.php>

**Database Tester (PDO)**

41 - Balla  
56 - Beardsley  
67 - Beckman  
42 – Boccioni

…  
…

106 - Vermeer  
33 - Vlaminck  
61 - Von Jawlensky  
13 - Whistler

//lab11-exercise08-mysqli.php

<?php require\_once('config.php'); ?>

<!DOCTYPE html>

<html>

<body>

<h1>Database Tester (mysqli)</h1>

Genre:

<select>

<?php

$connection = mysqli\_connect(DBHOST, DBUSER, DBPASS, DBNAME);

if ( mysqli\_connect\_errno() ) {

die( mysqli\_connect\_error() );

}

$sql = "select \* from Genres order by GenreName";

if ($result = mysqli\_query($connection, $sql)) {

// loop through the data

while($row = mysqli\_fetch\_assoc($result))

{

echo '<option value="' . $row['GenreID'] . '">';

echo $row['GenreName'];

echo "</option>";

}

// release the memory used by the result set

mysqli\_free\_result($result);

}

// close the database connection

mysqli\_close($connection);

?>

</select>

</body>

</html>

**Results**

