

8.5 Activity 1: Module 8 practical exercises 1–2

Purpose

In this module's exercises, you will:

- write PHP scripts that correctly connect to a MySQL database
- write PHP scripts to view the content of tables within the MySQL database
- write PHP scripts that incorporate form user input to query the database and view the returned data
- implement simple server-side form input validation
- write PHP scripts that correctly retrieve form inputs using the basic ideas of postback and query the database and incorporate simple server-side input validation.

You may need to refer to the [PHP manual \(https://www.php.net/manual/en/\)](https://www.php.net/manual/en/) (PHP, 2021) for support.

All of the exercises in Module 8 will be assessed and have to be submitted as part of [Assignment 2B: Practical exercise set 2 \(https://canvas.westernsydneyonline.edu.au/courses/1261/assignments/15052\)](https://canvas.westernsydneyonline.edu.au/courses/1261/assignments/15052). Make sure that all files have been uploaded to your TWA website before the submission due date.

The PHP database access

Before you start this module's exercises, you will have to connect to a MySQL database. The following information will help you work through how to connect to a MySQL database from your PHP scripts. You will use a MySQL database named **electrical** that is installed on the TWA server. The **electrical** database consists of four tables: **customer**, **purchase**, **product** and **staff**. The following tables provide the definition of these four tables; the underlined fields indicate the primary key of each table.

Table name: **customer**

Field name	Data type	Description
<u>customerID</u>	CHAR (6)	unique identifier for a customer
firstName	CHAR (30)	customer first name
lastName	CHAR (30)	customer last name
address	CHAR (15)	customer street address

suburb	CHAR (25)	customer suburb
state	CHAR (3)	customer state
postcode	CHAR (4)	customer postcode

*Table name: **purchase***

Field name	Data type	Description
<u>id</u>	INT	unique identifier for order placed by customer
orderID	CHAR (7)	the order number
quantityCode	VARCHAR (10)	a product within an order
quantity	INT	how many of the product ordered
orderDate	DATETIME	when the order was placed by the customer
shippingDate	DATETIME	when the order was shipped to the customer
shipped	CHAR (1)	indicates if the order has been shipped
customerID	CHAR (6)	who the order is for
staffID	CHAR (7)	which staff member processed the order

*Table name: **product***

Field name	Data type	Description
<u>productCode</u>	VARCHAR (10)	unique identifier for a product
name	VARCHAR (630)	product name
quantityInStock	INT	how many of the product are in stock
price	FLOAT	how much the product costs the customer

*Table name: **staff***

Field name	Data type	Description
<u>staffID</u>	CHAR (7)	unique identifier for a staff member
staffName	VARCHAR (50)	staff member's name

To connect to the **electrical** database, use the following in **your PHP script**:


```
$dbConn = new mysqli("localhost", "TWA_student", "TWA_2021_Autumn", "electrical");
if($dbConn->connect_error) {
    die("Failed to connect to database " . $dbConn->connect_error);
}
```

Task

Exercise 1

Step 1: In the practicals folder of your TWA website

Step 2: Download the following zip file for your system:

- [**Module 8 Windows files \(ZIP 3 KB\)**](#)
(<https://canvas.westernsydneyonline.edu.au/courses/1261/files/882006?wrap=1>)_ 
(https://canvas.westernsydneyonline.edu.au/courses/1261/files/882006/download?download_frd=1)
- [**Module 8 MACOSX files \(ZIP 2 KB\)**](#)
(<https://canvas.westernsydneyonline.edu.au/courses/1261/files/882007?wrap=1>)_ 
(https://canvas.westernsydneyonline.edu.au/courses/1261/files/882007/download?download_frd=1) .

Step 3: Create a PHP file named conn.php in the practicals/week10 folder of your TWA website. Copy the **electrical** database connection details as given above into conn.php and save the file.

Step 4: Create a PHP file named Exercise1.php in the practicals/week10 of your TWA website. The purpose of this file will be to display all records of the product table from the electrical database. Note that all fields of the product table should be displayed. The following example code will be helpful (you will need to refer to the database table definitions given earlier to determine the names of the fields that are not included in the following example code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
    <title>Week 8 Exercise 1</title>
    <link rel="stylesheet" href=" ../css/week10Styles.css">
</head>
<body>
<?php
    require_once("conn.php");
    $sql = "SELECT * FROM product";
    $results = $dbConn->query($sql)
    or die ('Problem with query: ' . $dbConn->error);
?>
<h1>Product table</h1>
<table>
<tr>
    <th>Product Code</th>
```

```

        <th>Name </th>
        <th>Quantity In Stock</th>
        <th>Price</th>
    </tr>
<?php
    while ($row = $results->fetch_assoc()) { ?>
        <tr>
            <td><?php echo $row["productCode"]?></td>
            <td><?php echo $row["name"]?></td>
            <!-- output the other fields here from the $row array -->
        </tr>
    <?php }
    $dbConn->close(); ?>
</table>
</body>
</html>

```

Exercise 2

The allTables.php script that has been provided to you gives you a view of the data that exists in the four tables of the **electrical** database from Exercise 1 without needing to recode Exercise 1 for each table.

Note: You will need to have completed Step 3 of Exercise 1 before the allTables.php file will work since line 5 of the allTables.php script includes conn.php.

Step 1: Run the allTables.php file to view the data for each table from the **electrical** database. You will need to refer to the output of this script to assist you with exercises 3 and 4.