Week 10 Practical Exercises

Note:
- All week 10 exercises will be assessed as part of the Practical Set 2 submission.
- Include HTML comments for your student ID, Name, and Practical Class Time at the top of each source file created.
- All files must be uploaded to your TWA web site before submission of Practical Set 2.

Objectives:
- write php scripts that generate dynamic hypertext links to pass values (via the querystring) to the server
- write php scripts to create and retrieve session variables and implement page redirection
- write php scripts that display database data in form input devices

Suggested Resources:
- PHP Manual https://www.php.net/manual/en/index.php
- PHP tutorials https://www.w3schools.com/php/

PHP Database Access

Some of the following exercises use the **electrical** MySQL database that is installed on TWA server. The **electrical** database consists of four tables: **customer**, **purchase**, **product** and **staff**. The tables below give the definition of these four tables; the underlined fields indicate the primary key of each table. Connection information is given on the next page.

Table Name: **customer**

Field Name	Data type	Description
customerID	CHAR(6)	unique identifier for a customer
firstName	CHAR(30)	customer first name
lastName	CHAR(30)	customer last name
address	CHAR(150)	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
id	INT	unique identifier for an order placed by a customer
orderID	CHAR(7)	the order number
productCode	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
productCode	VARCHAR(10)	unique identifier for a product
name	VARCHAR(60)	product name
quantityInStock	INT	how many of the product are in stock
price	FLOAT	how much the product costs to the customer

Table Name: **staff**

Field Name	Data type	Description
staffID	CHAR(7)	Unique identifier for a staff member
staffName	VARCHAR(50)	Staff members name

To connect to the **electrical** database use the following in your php script

```
$dbConn = new mysqli("localhost", "TWA_student", "TWA_2020_Autumn", "electrical");
if($dbConn->connect_error) {
  die("Failed to connect to database " . $dbConn->connect_error);
}
```

Exercise 1:

- In the **practicals/prac2** folder of your TWA web site create a new subfolder named **week10**
- Upload **styles.css** (found in the zip file for this practical) to the **week10** folder of your TWA web site
- Upload **exercise1.html** (found in the zip file for this practical) to the **week10** folder of your TWA web site. This file contains a form with a text box to enter a staff ID.

    Note: Do NOT change the content of this file in any way.

A. Create a PHP page named **exercise1.php** in the week10 folder of your TWA web site. This file will be the action for the form in exercise1.html; it will receive the staff ID from the exercise1.html page when it submits (see exercises from week 7 and week 8 for how you do this). Based on the submitted staff ID from the form, exercise1.php should extract the *order ID, order date, shipping date* and *staff name* fields for all orders processed by that staff member (the results should be displayed in ascending order of the order date). Display the results in an appropriate HTML table.

    Hint: Your SQL query to achieve the above result should *inner join* the *purchase* table and the staff table.

    Test the PHP script by entering a **valid** staff ID in the text box of the form and then click submit (see your output from Week 8 Exercise 2 for the staff IDs). Verify that the results you obtain are correct by comparing with the tables obtained in Week 8 Exercise 2.

Exercise 2

A. Create a PHP page named exercise2.php in the week10 folder of your TWA web site. This PHP file is to create a series of hypertext links. The links are to be generated from the *staff* table in the *electrical* database by the PHP script (i.e., the links are not to be hard coded). Each hypertext link should point to exercise1.php (**this is not a mistake**). The **link text** for each link is to be the staff members **name**. For each link, the staff members **staff ID** is to be appended to the URL (**important note:** ensure that the variable name appended to the URL is the same as that used in exercise1.html). When you run exercise2.php the output should look similar to the screen dump below.

    Run exercise2.php and click on one of the links. Does it correctly pass the staff id to exercise1.php? Does exercise1.php display the results you expected? Verify the results (you should get the same results as in

exercise 1). If this works correctly, you should see that this is an alternate way of passing data from one page to another **without** using a form.

Click a link to find orders placed by the staff member:

Mary Hadalittlelamb
Rose Budd
Miss Clumsy
Sun Beam
Buzz Lightyear

Exercise 3

- Upload exercise3.html (found in the zip file for this practical) to the week10 folder of your TWA web site.

  Note: Do NOT change the content of this file in any way.

A. Create 2 php pages. The first page, exercise3.php, is the action for the form in exercise3.html. The exercise3.php file should receive the data from the exercise3.html form and store the values into appropriate **session variables**. The only output on page exercise3.php will be a hypertext link which links to exercise3a.php (the second of the two php files that you will create).

B. The second php page, exercise3a.php, is to retrieve the session variables that were created by the exercise3.php page. After retrieving the session variables from the server, the page should display the values in an appropriate way. If the session variables have not been created then the exercise3a.php page should **automatically redirect** to exercise3.html. **Note**: this will logically only be the case if the user tries to visit exercise3a.php directly without filling in the form in exercise3.html and submitting it first.

```
Exercise3.html              Exercise3.php              Exercise3a.php
```

Hobby Selection Page

Your Name: _____

Favourite hobby : [please choose an option ▼]

[Submit Form]

→

Lets visit the second page

→

Hello Ana Gram. Your hobby is music

Go to the starting form

User fills in form & submits

User clicks link

The user details are displayed

Exercise 4

- Upload exercise4.html (found in the zip file for this practical) to the week10 folder of your TWA web site. This file contains a form with a text box to enter a Customer ID.

  Note: Do NOT change the content of this file in any way.

A. Create a PHP page named **exercise4.php** in the week10 folder of your TWA web site. This file will be the action for the form in exercise4.html; it will receive the Customer ID from the exercise4.html page when it submits. Based on the submitted Customer ID from the form, exercise4.php should extract the *first name, last name,* and *suburb* for this customer from the customer table (note: since the Customer ID is unique in this table, if a match is found there will only be one record returned by the query). Display the results in a form, using text boxes for each field (see screen dumps on next page for example).

Find Customer Details

Customer ID: 777888

Submit

The user enters the customer id into the form in exercise4.html and submits.

Customer 777888 details

Firstname:	Lou
Surname:	Stooth
Suburb:	Parramatta

Exercise4.php retrieves the customer details for this customer from the database and displays the three fields in text boxes in a form.