PHP / SQL

Intermediate practical assessment

09th November 2022

Time allowed : 4h00

Marking

At the end of the allocated time, you must deliver all of your files and a score out of 20 will be given based on to the following scale:

> **Exercice 1 : 2 points**
> **Exercice 2 : 4 points**
> **Exercice 3 : 4 points**
> **Exercice 4 : 8 points**
> **Other : 2 points** ○ Indentation and readability ○ Code Comments ○ Variables name

NB: it is not permitted to copy and use code obtained from other students of this training or previous students of this training - doing so is considered cheating and will be sanctioned.

<u>***Tips***</u>
If the task seems overwhelming, don't worry! Each step is detailed to move forward little by little.

- Read the entire statement from the start, to know where you are going.
- Take the time to code, commenting on your code as soon as it is necessary, why not by copying the instructions in comment. The proofreader must be able to understand what you have done!
- Keep functions simple, which do only one thing, the better to navigate.
- Focus on PHP rather than CSS/HTML !
- The more your code will be indented and readable, the easier the rest will be! Each exercise is independent, be sure to separate them into different files or folders.

Exercise 1: "Let's join"

Given this database structure :

INSTRUMENTS(id, name, type, price)
BANDS(id, name, bio)
INSTRUMENTS_IN_BAND(#band_id, #instrument_id)

You need, in a separate TXT/SQL file, to write the query to:

1. display all the instruments for band 'Metallica'
2. For each band, display the name of the band + number of instruments used by that band.

Note: Only write the SQL query, no PHP.

Exercise 2: "Celebrities"

We have gathered information about some celebrities. We managed to retrieve their bank account information among other things.

You can find that information in the 'exercise2_array.php' file.

Given this information, write a PHP script that displays the celebrity name AND the number of houses for each person, as well as the bank account balance (credit - debit).
If the bank account balance is below 0, display it in red.

This list should be displayed in descending alphabetical order (based on the name).

Example :

'Dwayne Johnson owns 21 houses and has a bank balance of 871399200 $'
'Kylie Jenner own 5 houses and has a bank balance of -15000 $'
'Jeff Bezos own 15 houses and has a bank balance of 812014041 $'

Bonus :

Display the celebrity with the largest bank balance.

Exercise 3: "Arrays Multiply"

Given 2 arrays of the same length, create a PHP function that will create a new array and return it. This new array will be the multiplication of the elements of the two original arrays.

Example :

Inputs :

$tab1 = array(9, 20, 10, 3, 25, 2, 4);
$tab2 = array(2, 5, 13, 3, 1, 11, 7);

Output :

$resultat = array(18, 100, 130, 9, 25, 22, 28);

This function has 2 arguments:

- The first array (array type)
- The second array (array type)

You also have to perform the necessary verifications in order to validate the arguments !

Exercise 4: "It's almost Christmas !"

Part 1 :

Create a database and name it "christmas_shop".
Inside it, you must create a table that you will call "toys" with the following attributes :

- id (int PrimaryKey)
- name (varchar)
- price (double)
- photo (varchar)
- type (enum: dolls, mechanic and puzzle)
- description (text)

You have to export the DB and include the SQL file in your project folder.

Part 2 :

Create a page 'add-toys.php'.

Inside this page, there should be a form to add a toy in the table 'toys'.

Prerequisites:

1. The fields name, price and type are required.
2. The field 'type' will be a drop-down menu.
3. The price must contain numbers only.
4. Error messages will be displayed in red.

Once you submit the form, the toy must be added to the database.

A success message will be displayed.

Part 3 :

Create a page 'toys.php'.

This page will display all the toys with their respective information.

You have to :

- Display the toys in a HTML table (all the information).
- Display the name of each toy in capital case.
- Display the price with a € sign.
- If the description is more than 30 characters long, cut the text by adding "...".