NumericALL

PHP / SQL

Intermediate practical assessment

9th August 2022

Time allowed : 4h00

Marking

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

Exercice 1 : 2 points
Exercice 2 : 3 points
Exercice 3 : 5 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.

Tips
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: Query

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 guitars (type) which the price is lower than 100
2. display all instruments (name) for band_id = 5

Note: Only write the SQL query, no PHP.

Exercise 2: Capital

We have gathered information about countries. We managed to retrieve the capital name of the country and the number of inhabitants.
You can find this information in the 'exercise2_array.php' file.

Based on this array, write a PHP script that displays the country AND the capital on each line, as well as the number of inhabitants.

This list should be displayed in ascending alphabetical order.

Example :

The capital of France is Paris. Number of inhabitants: 89797998
The capital City of Italy is Rome. Number of inhabitants: 788798
The capital of Luxembourg is Luxembourg. Number of inhabitants: 3213416

BONUS : Display the most populous country

Exercise 3: Money Converter

Create a function to convert a price in euro to Japanese yen OR a price in Japanese yen to euro.

This function has 2 arguments:

- The price (int type or float type)
- The currency of the price (EUR or JPY).

If the second parameter is 'JPY', the function needs to convert the price to 'EUR'.
If the second parameter is 'EUR', the function needs to convert the price to 'JPY'.
You have to display the result.

Reminder : 1 EUR = 138.20 JPY

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

Exercise 4: Rent-a-Car

Part 1 :

Create a database and name it "music_shop".

Inside it, you must create a table that you will call "instruments" with the following fields:

- id (int)
- name (varchar)
- brand name (varchar)
- price (double)
- photo (varchar)
- type (enum: guitar, drum, bass or turntables)
- description (varchar)

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

Part 2 :

Tip: To test this part you will need to insert/create some instruments in your DB first.

Create a page 'instruments.php'. This page will display all the instruments with their respective information.
Titles for each instrument must be surrounded by <h3> tags.
If the description is more than 30 characters long, seperate the text by adding "...".
For each instrument, you will also add a column which contains a "see more" link.

Part 3 :

Create a page which will dynamically display the detailed content of an instrument. You have to display all the information and the full description. If the instrument doesn't exist, an error message must be displayed.