

Web Development Client Side

Lab 05

JavaScript

You need to be present in the lab to get a mark.

Objective:

1. Use HTML and JavaScript to solve given exercises.

File Setup

1. Create a lab05 folder in your WebDevCS folder
2. Create a js folder in the lab05 folder
3. In exercise 5 save the JavaScript code to a file in the js folder, ie use external scripts.
(Ensure that your link to the .js file is correct, see calculate.html for an example)
Use the HTMLTemplate.html from Moodle

File Submission

Zip your files into lab5<studentnumber>.zip and submit to Moodle.

Exercise 1 – euroToUSD.html, euroToUSD.js

The purpose of this exercise is to convert Euro into US Dollars.

Create a form that will allow the user to enter a Euro amount.

Incorporate a 'Convert' button within the form.

Upon clicking this button, the corresponding US Dollar amount will be presented below it.

Refer to calculatefunction.html in the student code.

Ensure that the JavaScript is written to an external file and that an input field is used to display the result

Example

```
<script src = "js/euroToUSD.js">
```

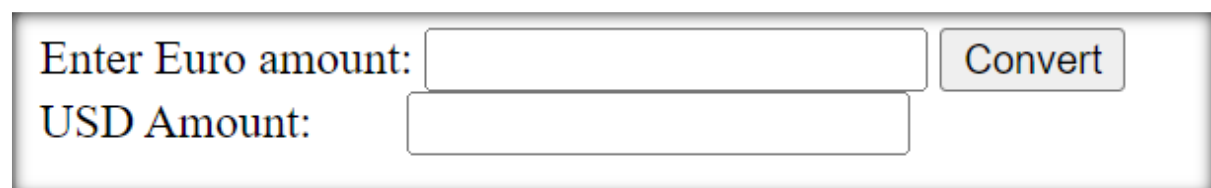
Refer to inputoutput.html on Moodle

Note:

The conversion rate is 1.09.

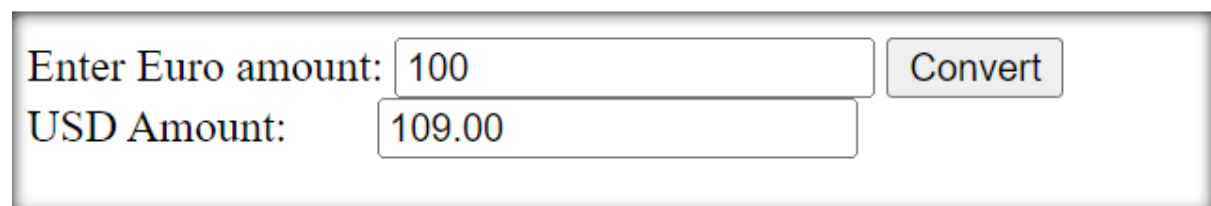
Solution

Initial Screen



The initial screen shows a form with two input fields and a button. The first input field is labeled 'Enter Euro amount:' and is empty. The second input field is labeled 'USD Amount:' and is also empty. A button labeled 'Convert' is positioned to the right of the first input field.

Solution when user entered 100



The solution screen shows the form after the user has entered '100' in the 'Enter Euro amount:' field. The 'USD Amount:' field now displays '109.00'. The 'Convert' button remains to the right of the first input field.

Exercise 2 – euroConverter.html

Enhance exercise 1 by enabling users to choose the currency for conversion. For instance, if the user opts for GBP and inputs an amount in euros, the corresponding amount in GBP will be presented.

Provide users with the option to select from the following currencies: British Pound (GBP), US Dollar (USD), Australian Dollar (AUD), and Japanese Yen (JPY).

Retrieve currency rates from Google for accurate conversion.

Refer to [purchaseOrder.html](#)(Lecture 5 Code examples) on Moodle

Exercise 3. waterUsage.html, waterUsage.js

The purpose of this exercise is to calculate the average water usage per day.

Create a form that allows the user to enter two numbers, Litres and No. of days.

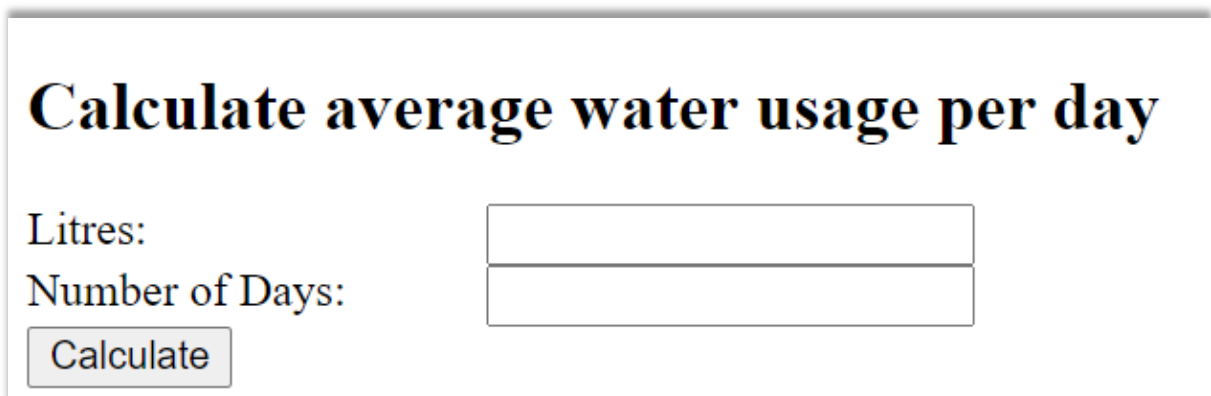
When the user clicks the calculate button the average water usage is displayed.

Average = Litres / No. of Days

Ensure that the JavaScript code is saved in an external file.

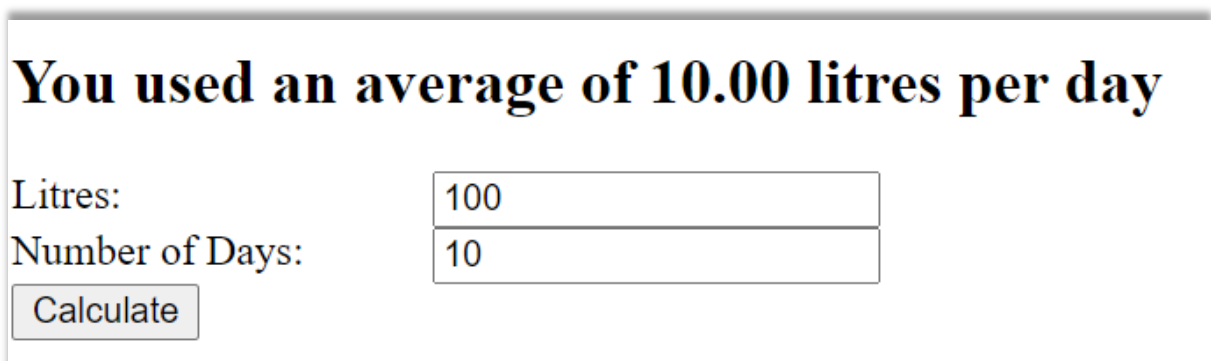
Refer to calculate.html in the sample code.

Initial Screen



The initial screen displays the title "Calculate average water usage per day" in a large, bold, black serif font. Below the title, there are two input fields: "Litres:" and "Number of Days:". The "Litres:" field is a single-line text box, and the "Number of Days:" field is a single-line text box. Below these fields is a "Calculate" button with a light gray background and a thin black border.

Result Screen when values entered



The result screen displays the title "You used an average of 10.00 litres per day" in a large, bold, black serif font. Below the title, there are two input fields: "Litres:" and "Number of Days:". The "Litres:" field contains the value "100" and the "Number of Days:" field contains the value "10". Below these fields is a "Calculate" button with a light gray background and a thin black border.