Web Technologies

Excercises

Display message

1. **The variables `name` and `surname` contain your personal data.**
2. **In the message.html , write a JavaScript program to display your data both in a popup window and in the console.**
3. **Try to display your name and surname in separate lines.**
4. **Check the results in the Chrome DevTools (ctrl+shift+j or F12).**

Enter data

1. **The variables** `name, surname` **and** `age` **contain your personal data.**
2. **Enter the data and save them in the variables.**
3. **In the enter.html document, write a JavaScript program to display your data both in a popup window and in the console.**
4. **Try to display your personal data in a single line.**
5. **Check the results in the Chrome DevTools.**

Execute a condition statement

1. **The variables** `name, surname` **and** `age` **contain your personal data.**
2. **Enter the data and save them in the variables.**
3. **In the condition.html document, write a JavaScript program to display your data in the console provided you pressed Ok button in the „confirm” popup window.**
4. **Check the results in the Chrome DevTools.**

Try to guess

1. **Write a JavaScript program where the program takes a random integer between 1 to 5, the user is then prompted to input a guess number. If the user input matches with guess number, the program will display a message "Good Work" otherwise display a message "Sorry".**
2. **Complete guessing.html with a JavaScript code.**
3. **To enter a user's number and to display a message, use popup windows.**

Fix that code

1. **Fix a JavaScript code in the code.html.**
2. **To improve the code quality, use JSLint (either notepad++ plug-in or www.jslint.com).**

Construct a pattern

1. **Write a JavaScript program to construct the following pattern:**

```
*
* *
* * *
* * * *
* * * * *
```

2. **Use a for loop and a repeat string method.**
3. **Complete pattern.html with a JavaScript code.**
4. **Display results in the console.**

Check an array

1. Create a five-element array which contains random integers in the range of 1 to 5. To create a random number, use Math.random() function.
2. Check whether the array is ordered, i.e. each element of the array is not smaller than its predecessor.
3. Complete randomarray.html with a JavaScript code.
4. Display in the console the array elements and information whether the array is sorted.

Make a good speech

1. Write a JavaScript program to write/generate a speech.
2. Use speech.html with speech text excerpts.
3. To create a sentence, take any text from the first array, any text from the second one, any text from the third one, and finally, any text from the fourth array.
4. Complete the n() function to create a random number for selecting text from arrays. Use Math.random()
5. Display your speech, containing 5 sentences, in the console.

Create an external script

1. **In the external.html, write a JavaScript program to display a current date in a popup window.**
2. **Place a JavaScript code in the external file date.js**
3. **In the current folder, create a folder ‘js’. Then put the script file in that folder.**

Events

1. **In the events.html, write a JavaScript program to display a message in the console ‘You clicked the button X times’.**
2. **Put a code in an external script.**
3. **Create a function and a button event.**
4. **Display a message in the console each time the user clicks on the button.**
5. **Replace X with the number of clicks.**
6. **Check the results in the Chrome DevTools.**

Object Oriented Programming

Display movie

Complete the movie.html document. Display all movie details on the console.

Create mobile phone

1. **Open the mobile.html document. Then create an object describing your mobile phone.**
2. **The object should consist of at least five properties of different types (string, number, boolean, array, object).**
3. **Add a button and display the mobile phone description in a popup window after clicking on the button.**

Calculate BMI

Complete the JavaScript code in the bmi.html document to calculate BMI (Body Mass Index).

Analyse an array

Complete the JavaScript code in the array.html document.

Display books list

1. **Based on the list of books below, create in the books.html an array of five objects, where each object describes a single book.**
2. **Iterate through the array of books and display in the console the details of books in paperback.**

```
id,title,author,format,price
"The Return of Duck and Goose","Sir Piggy",paperback,19.99
"The Adventures of Duck and Goose","D. Cow",hardback,18.99
"My Friend is a Duck","A. Parrot",paperback,14.99
"'Duck and Goose' Cheat Sheet for Students","Polly Parrot",paperback,5.99
"'Duck and Goose': an allegory for modern times?","Bor Ing",ebook,59.99
```

Source: http://dickimaw-books.com/latex/admin/html/samplecsv.shtml

Create constructor function

1. **In the forsale.html document, create a constructor function** House **with the following properties and methods:**
   - bedrooms (the number of bedrooms)
   - facilities (an array of house facilities, eg. [’garden’,’garage’,’swimming pool’])
   - price
   - address (an object of street, city)
   - phone (eg. 555 222 111)
   - changePrice(newPrice){…}
   - addFacility(newFacility){…}
   - description() { returns a string containing a full house description, i.e. bedroom, facilities, price, address)}
2. **Then use the constructor function to create a collection of five houses.**
3. **Display the house details in the console (use the description method and a loop).**
4. **Change a price of two houses and add at least one facility in three houses).**
5. **Display the house details in the console.**