

Exercise Week 7

Using the DOM

Exercise 1

1. Create a web page that has a heading and a button as shown below.

Change text **This is JavaScript**

When the “change text” button is clicked, the heading should change to text as shown below:

Change text

This is DOM manipulation

Exercise 2 - Basic Calculator

1. Create a web page that has 2 input boxes and a button as shown below.

<input type="text"/>	<input type="text"/>	Add
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Your page should allow the user to input 2 numbers and clicking the add button will create an alert with the answer (num1 + num2) using getElementById and a function.

Please note the following:

The default value type from an input box is a string (text). This means that if you try and “add” the values from the first and second box it will concatenate them – eg: 5 + 5 = 55

You will therefore need to convert the type to a number. See the example below:

```
var num1 = Number(document.getElementById("inputBox1").value)
```

This is creating a variable called num1, that is a number, and contains the value inside a HTML element with an ID of “inputBox1”. This will ensure that the variable **num1** is a number

Exercise 3 - Calculator

1. Extend the calculator created in exercise 2 so that it is similar to the page below:

Calculator

Number 1:

Number 2:

ANSWER: 6 divided by 2 = 3

Buttons should add, subtract, divide and multiply accordingly.

Exercise 5 - Guessing Game 1 to 100

Write a JavaScript Guessing Game program where the program chooses a random number between 1 to 100. The user is then *prompted* to guess the number the program chose. The user has six attempts to guess the right number. After each attempt, if the number is incorrect, the program will display "Guess too high" or "Guess too low" depending on the user input. If the user has not guessed the correct number after 6 attempts, the game ends and the number the program generated is displayed.

The game doesn't start until the user clicks the "Start Guessing Game" button, as shown below.

Start Guessing Game

If the user doesn't guess the correct number, the page display output as shown below, including the image as shown. See here for how to change image sources using the DOM:

https://www.w3schools.com/jsref/prop_img_src.asp

Start Guessing Game

You ran out of attempts! The correct number was: 75



If the user guesses the correct number, the page display output as shown below, including the image as shown.

[Start Guessing Game](#)

Well done, you guessed correctly! It took you 5 attempts to guess.



Exercise 6 - Changing Styles with the DOM

Create a page with a H1 and H2 heading with 3 buttons, as shown below.

Changing styles with the DOM

Change this text!!!

Change Font Colour

Change Font Size

Change Font Style

Clicking on the “Change Font Colour” button should change the font color of the H2 heading to red.

Clicking the “Change Font Size” and “Change Font Style” buttons work as expected, by making the H2 header smaller or italics depending on which button is clicked.

See list here for more information on achieving style changes:

https://www.w3schools.com/jsref/prop_style_fontstyle.asp

https://www.w3schools.com/jsref/prop_style_fontsize.asp