



Exercise 8: JavaScript III Events

All exercises must be solved using JavaScript.

1. Start with the HTML below:

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8" />
    <title></title>
  </head>
  <body>

    <h1>Mad Talk</h1>

    <ul>
      <li>Noun: <input type="text" id="noun">
      <li>Adjective: <input type="text" id="adjective">
      <li>Someone's Name: <input type="text" id="person">
    </ul>

    <button id="lib-button">Mad!</button>

    <div id="story"></div>

  </body>
</html>
```

- a. Add an event listener to the button that calls a function, called `makeMadTalk`, when clicked.
- b. In the `makeMadTalk` function, take the values that were inputted, make a sentence with those values, and put it in the div (example: "Maki really likes pink mushrooms.")
 - i. The basic sentence doesn't need to change with each input. Only the values from the inputs change.
 - ii. How to combine a basic sentence with the 3 inputs is left to your imagination. Try to end up with a **funny** sentence!



2. Using the `index.html` provided (at the end of this document) and changing it using only JavaScript answer the following questions:
 - a. Add what you need to make sure your DOM is loaded before making changes. Tip: There is a [DOMContentLoaded](#) event.
 - b. Replace the text "Change me" with something of your choice.
 - c. Make sure that, when the mouse hovers over the "boxes", a text informing the color of each box appears after the SELECTED COLOR phrase.
 - d. Create a new `<div>` element with `class="random"`, and make the color of this div change every 0.5 seconds. Tip: [setInterval](#) function. That is how the page will look like at the end:

Hello world!

SELECTED COLOR yellow



3. Modify question 1.4 from [Exercise 7](#) (last week) to only highlight the text when a button is clicked. You may just copy and paste the code and do this modification.



CHALLENGE (extra points)

Create a simple calculator that contains the numbers 0-9, the mathematical functions +, -, /, *, =.
Everything must be done with buttons and it must look like a calculator, something like:





index.html file for question 2:

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <title>JS Exercise</title>
  <style>
    div {
      width: 50px;
      height: 50px;
      display: inline-block;
    }
    .brown{
      background-color: brown;
    }
    .green{
      background-color: green;
    }
    .blue{
      background-color: blue;
    }
    .purple{
      background-color: purple;
    }
    .yellow{
      background-color: yellow;
    }
  </style>
</head>
<body>
  <h1 id="change_heading">Change Me!</h1>
  SELECTED COLOR <span class="selected">None!</span>
  <section>
    <div class="brown"></div>
    <div class="green"></div>
    <div class="blue"></div>
    <div class="yellow"></div>
  </section>
  <script src="script.js"></script>
</body>
</html>
```

Good luck!