

# Introduction to JavaScript – Recap

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Website Development 2

# Week One Topics

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- Introduction to JavaScript
- Variables
- Operators
- Pop Up Boxes
- Global Methods
- Conditional Statements
- Iterative Statements

# Week Two Topics

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- String Manipulation
  - `charAt()`, `indexOf`, `substring()`, `toLowerCase()`, `toUpperCase()`, `length`, `split()`, `slice()`
- Math Object
  - `random()`, `max()`, `min()`, `pow()`, `sqrt()`, `round()`, `ceil()`, `floor()`, `abs()` etc...
- Date Object
  - `new Date()`, `getFullYear()`, `getDate()`, `getDay()`, `getMonth()`, `getHours()`, `getMinutes()`, etc...
- Functions
- Arrays
  - Creating Arrays, Manipulating Arrays, Object-based Array Functions

# Week Three Topics

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- Document Object Model
- Accessing Elements
  - getElementById(), getElementsByTagName(),  
getElementsByClassName(), getElementsByName(),  
querySelector(), querySelectorAll(), innerHTML, etc...
- Accessing Form Elements
  - value, checked, selectedIndex, etc...
- Events
  - addEventListener, click, focus, blur, change, mouseover,  
mouseout, submit, etc...

# Week Four

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- In the practical this week you will get a chance to demonstrate the skills that you have learned over the past three weeks and complete a group based task.
- Each class will be given a different task and during the class you can work in groups to decide how to solve the task and then code the solution.
- The task is not part of your assignments BUT you will be given credit for completing the task and a bonus mark will be given to you at the end of the semester for this module.

# Class Exercise 1

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## Favourite Fruits

- Apple
- Orange
- Pear

Add a Fruit

Remove a Fruit

The web page has an unordered list. We want to be able to dynamically add to the list and remove items from the list. We also want to keep track of the number of (fruit) items in the list.

# Class Exercise 1

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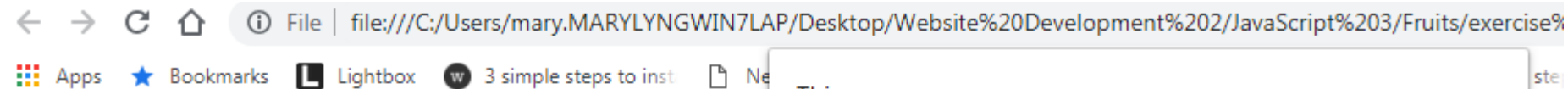
## Favourite Fruits

Number of Fruits: 3

- Apple
- Orange
- Pear

Add a Fruit

Remove a Fruit



## Favourite Fruits

Number of Fruits: 3

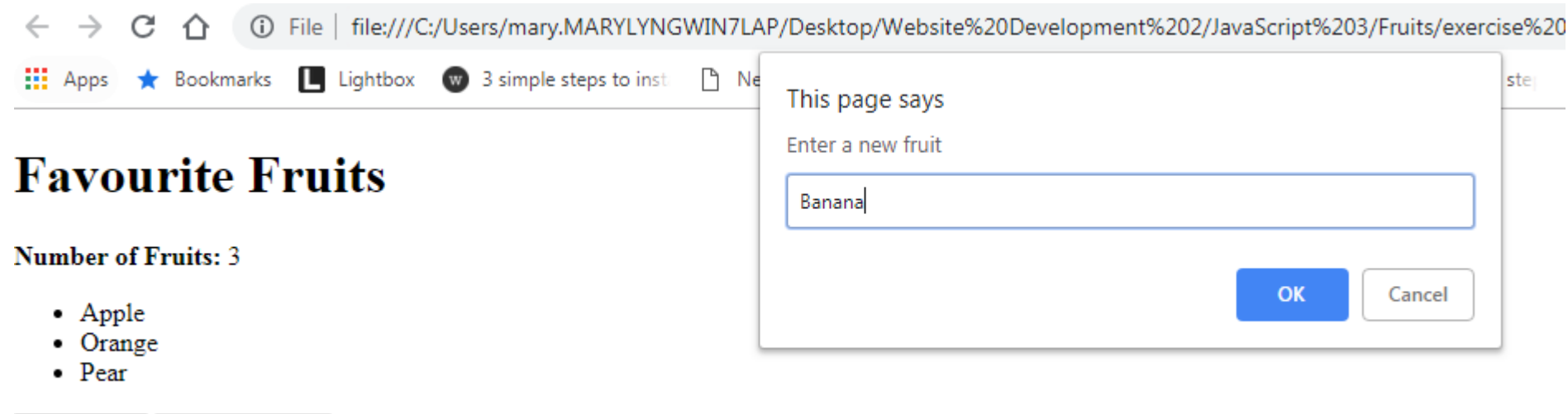
- Apple
- Orange
- Pear

Add a Fruit

Remove a Fruit

# Class Exercise 1

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## Favourite Fruits

Number of Fruits: 4

- Apple
- Orange
- Pear
- Banana

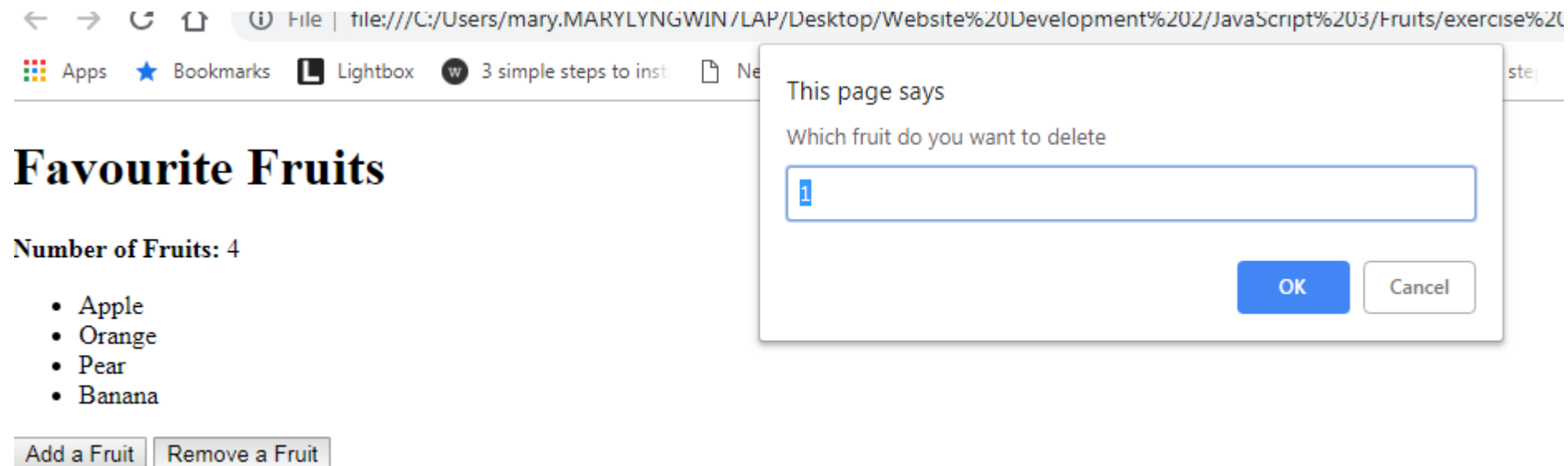
Add a Fruit

Remove a Fruit



# Class Exercise 1

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## Favourite Fruits

Number of Fruits: 3

- Orange
- Pear
- Banana

Add a Fruit Remove a Fruit

# Class Exercise 2

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We have web page with no content. But in the JavaScript file (assignment.js), we have an array with summary data.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title>Class Statistics</title>
    <link rel = "stylesheet" href="css/formstyle.css" />
  </head>
  <body>
    <h1>Software Systems Development</h1>
    <div id = "results"></div>
    <script src="js/assignment.js"></script>
  </body>
</html>
```

```
var classdata = [];

function setup() {
  classdata[0] = "Jane Doe,80,75,90,87";
  classdata[1] = "John Doe,70,65,60,70";
  classdata[2] = "Jack Smith,80,80,90,83";
  classdata[3] = "Jen Smith,90,70,60,75";
  classdata[4] = "Fred Ryan,90,90,86,80";
  classdata[5] = "Chris Martin,40,50,35,40";
  classdata[6] = "Fiona Rowe,50,30,45,45";
  classdata[7] = "Mike Smith,70,90,65,78";
  classdata[8] = "Mary Ryan,85,95,83,75";
  classdata[9] = "Jack Walsh,65,80,73,60";
}

setup();
```

# Class Exercise 2

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We will write code that will take each record from the array and provide summary data as follows:

## Software Systems Development

Jane Doe: 84  
John Doe: 68  
Jack Smith: 83  
Jen Smith: 74  
Fred Ryan: 84  
Chris Martin: 41  
Fiona Rowe: 43  
Mike Smith: 77  
Mary Ryan: 81  
Jack Walsh: 66