

Assignment: Midterm Practical (2hr)

Midterm Practical

You will create an array of student objects. Demonstrate your ability to add a new student object to the array of students, then use the DOM to output the student information using innerHTML.

Objectives & Outcomes

Successful completion of this activity will show that you can:

Assess your skills and comprehension of the materials taught up to this point. (Objects, Arrays, Functions, Conditionals, Scoping, Debugging, DOM)

Assess your ability to use all your new programming skills and apply it to a very practical assignment.

Assess your ability to logically separate code into functions.

Assess your ability to utilize JavaScript DOM manipulation functions effectively.

Employ solid craftsmanship.

Getting Started:

This midterm is OPEN... to a point.

There will only be 2 restrictions

1. You will work on your own to accomplish the programming tasks in this midterm.
2. You can use the web as a reference only. You cannot use any technology to ask for help. (i.e. NO iChat, screen shares, texting, document sharing, etc...)

You will need to a script tag for js/main.js in your .html file.

You will need to wrap your code (in the js/main.js) in a self-executing function.

Make sure you adhere to proper folder constructs, if applicable (css, images, js, etc).

Criteria:

Create an array of 3 student objects(Object Literals) containing 3 properties. (30%)

Properties are:

name

address (this should be an object with 3 properties, see below)

1. street
2. city
3. state

grades (this will be an array of 3 test scores that you make up for the student in this object)

Make sure you supply appropriate values for each of the above properties for each student.

The HTML (35%) - 25% for correct display, 10% for functioning button

- Refer to the given HTML to determine the ID of the tags that need to be referenced by JavaScript including the button
- The student name, address, grades, and average grade needs to be displayed correctly in the HTML similar to how it was done in lecture
- The next button when clicked will advance to the next student and show the appropriate information. Once the last student is reached then cycle back to the first student in the array.

Getting the Average (25%)

- Create a custom function named getAverage() that is given an array of numbers as an argument and returns the average
- The average that is returned from the function mentioned above is displayed in the HTML for each student, one at a time.
- Do **NOT** create an additional property in the student object literal for the average

Dynamic programming: (10%)

- The exam should still work regardless of how many students are in the array and how many grades each student has

Deliverables

You will submit your assignment into FSO using the file format name lastName_firstName_midterm.zip. Make sure you archive your entire project folder so I will receive all your dependency files (HTML, CSS, Image files, JS, etc)