Lecture Exercise 2 (4/13)

Submit your team number

Question *Submitted Apr 13th 2023 at 4:56:20 pm*

Please enter your team number.

12

1. Refer to an external .js file on a html document

Question *Submitted Apr 13th 2023 at 5:17:57 pm*

Suppose you have a javascript file named ***app.js*** and you want to link it to a html document. The file ***app.js*** is in the same directory as your html document. In the html file, what line of code do you need to include? Refer to External JavaScript section on this link.

```
<script src="app.js"></script>
```

2. JavaScript Basics

Question 1 *Submitted Apr 13th 2023 at 5:07:08 pm*

A variable sum stores the sum of all the elements in an array arr. Fill in the blank for the right code. Refer to this link to see the usage of "for in".

```
let sum = 0;
const arr = [1, 2, 3, 4, 5];
for (let x in arr){
    sum += _____;
}
```

sum += arr[x]

Question 2 *Submitted Apr 13th 2023 at 5:14:41 pm*

There are multiple mechanisms you can use to "display" data in Javascript.

- Directly to a html document (the first item in this link)
- Not to a html document but to a Console (terminal in web-programming). Just like System.out.println() in Java or print() in python. (the fourth item in this link)

Check out the two items on the link above and print your team member names on both Console, and directly to the exercise2.html in a <p> using Javascript.

Copy and paste your code below.

```
// Q2-2

// Code to print team members names on console

console.log("Jonathan Lo")

console.log("Eric Park")

console.log("Erik Pak")

/* Q 3-2

i) Declare an array of integers

ii) Iterate over array and print each element on the Javascript console
```

Add your code below */

```javascript
const nums = [1, 2, ,3 ,4 ,5]

for (let x in nums) {

console.log(x)

}
// Q 3-3

var conditionlist = ["Condition 1", "Condition 2"];

/* List each condition specified in conditionlist[] to relevent <p> element

by using Javascript

Add your code below

*/

const conditions = document.getElementsByClassName('conditions')

for (var i = 0; i < conditions.length; i ++) {

conditions[i].innerHTML += conditionlist[i]

}
```

Question 3 *Submitted Apr 13th 2023 at 5:20:04 pm*

What is the difference between `var` / `let` and `const` type variables? You may refer to the **link** for more details.

var is used for when the variable is changing

let is used when you want to initialize the variable and expect it to change

const is for creating a static variable

3. Manipulate a html document with Javascript

Question 1 *Submitted Apr 13th 2023 at 5:16:51 pm*

```html
<div id="main">
    <p id="p">This is the start of p.</p>
    <div>
        <p class="p1"> This is the start of p1.</p>
    </div>
    <p id="p1_id" class="p1 p2"> This is the start of p2.</p>
</div>
<div>
    <p class="p3">This is the start of p3.</p>
</div>
```

Given the HTML code above, how many elements do x,y and z select respectively?

```javascript
const a = document.getElementById("main")
const x = a.getElementsByTagName("p")
const y = document.getElementsByClassName("p2")
const z = document.getElementsByClassName("p3")
```

4, 1, 1

Question 2 *Submitted Apr 13th 2023 at 5:21:04 pm*

 Add a line of code in exercise2.html which declares an array with 5 elements and prints them to the console.

```javascript
const l = [1, 2, 3, 4, ,5]

for (let x in l) {

console.log(x);

}
```

Question 3 *Submitted Apr 13th 2023 at 5:21:51 pm*

Add a code in exercise2.html that accesses each element in the array conditionList = ["Condition 1", "Condition 2"], and puts them in a relevant <p> tag.

There are two <p> tags with class name = "condition". You need to write a piece of code such that you

are able to append "Condition 1" to the first <p> tag and "Condition 2" to the second <p> tag. You can use `append()` function for this and will find this link helpful.

It might be helpful to first do this just for a single tag, and then build on that by using a "for" loop for both the tags.

The output should look like this on web browser.

You have two conditions to fulfill for Question 3-3

First Condition: Condition 1

Second Condition: Condition 2

Copy and paste your code below.

```
const conditions = document.getElementsByClassName('conditions')

for (var i = 0; i < conditions.length; i ++) {

conditions[i].innerHTML += conditionlist[i]

}
```

4. Scalable Vector Graphics

Select two other shapes of your interest and look it up on [W3school-SVG](#). The link explains what attributes each shape needs and what they mean. Then add those shapes to your [exercise2.html.](#)

(Tip) For your future reference, a comprehensive list of SVG attributes is [here](#) with nice examples. The categorized list of SVG attributes and the information on whether each is shared with CSS can be found [here](#).

Question 1 *Submitted Apr 13th 2023 at 5:38:14 pm*

Verbally explain what each attribute means for the shapes of your interest.

<rect width="300" height="100" style="fill:rgb(0,255,0);" />

- width means the width of the rectangle
- heigh mean the heigh of the rectangle
- style references things like colors

<circle cx="50" cy="50" r="50" style="fill:rgb(0,0,255);" />

- cx is the x coord of the center
- cy is the y coord of the center
- r is the radius
- style is styling

Question 2 *Submitted Apr 13th 2023 at 5:38:17 pm*

Did you add the two shapes of your interest and ready to submit?

- ◉ Yes we added the two shapes and are ready to submit our files.

- ◯ No we are not done yet!

Upload Your Files

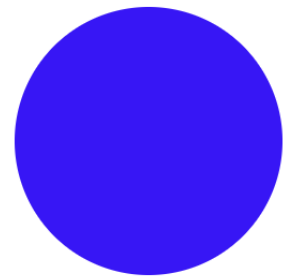**Question 1** *Submitted Apr 13th 2023 at 5:39:21 pm*

Upload the screenshot of your resulting webpage. You will need to click the "clip" button to upload a file into the Answer box.

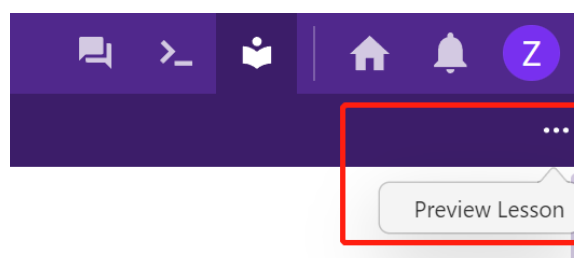You have two conditions to fulfill for Question 3-3

First Condition: Condition 1

Second Condition: Condition 2

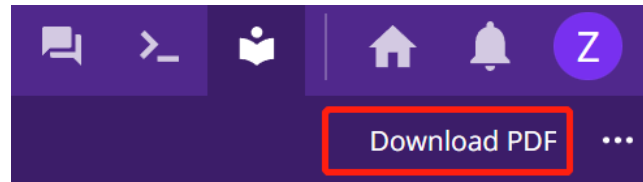**Question 2** *Submitted Apr 13th 2023 at 5:38:53 pm*

You need to download the PDF of lecture exercise 2 and upload it with other files to the Gradescope. Follow the instructions on how to download PDF file:

1. Click on the ellipsis button and the Preview Lesson.

2. After that, click on the Download PDF button.

- ● PDF downloaded!

- ○ Haven't done yet!

Question 3 *Submitted Apr 13th 2023 at 5:38:56 pm*

Upload the following files to Gradescope. You need to make **a group submission,adding all present members in your team**, so that the present members get the participation credit.

Files to upload:

- exercise2.html
- style.css (if any)
- PDF you downloaded as Q2

- ● Our team uploaded the three files on gradescope!

- ○ Oops, our team did not upload the three files on gradescope!

Feedback

Question *Submitted Apr 13th 2023 at 5:39:04 pm*

Was the activity today clear? If not, please share how the course can improve it. Your comments will help us design future lab content (and also future students).

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