JavaScript – PART A (Using Codecademy)

COGS3
Log into your codecademy account using the username and password listed on TEd

- The goal of using Codecademy is to get practiced with working with JavaScript and to gain a better level of understanding of how to program.
- Use the username and password on TEd
- Logon to codecademy and go to the Language Skills section and select “JavaScript”
- Complete the JS problems using Codecademy
- Then, use the following pieces of code as EXAMPLES of how to integrate JavaScript into HTML.

[Codecademy Logo]

www.codecademy.com/
Language Skills

Learn core programming concepts and syntax for the world's most popular languages.

Select this course:

- HTML & CSS
- JavaScript
- jQuery
- PHP
- Python
- Ruby

Codecademy
Start with Unit 1:

UNIT 1: INTRODUCTION TO JAVASCRIPT

Lesson: Getting Started with Programming
Time to become a coding champ.

Lesson: Code Your Own Adventure!
Let's create your very own "code your own adventure" game.
<table>
<thead>
<tr>
<th>Lesson #</th>
<th>Section</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Getting Started with Programming</td>
<td>Commands, mathematical operations, if/else statements, data types, modulo,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>variables, numbers and string manipulations</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Choose Your Own Adventure</td>
<td>Synthesis: Assign prompt to a variable; comparison operators; console.log</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Introductions to Functions</td>
<td>Understanding what functions do; creating and debugging functions; return</td>
</tr>
<tr>
<td></td>
<td></td>
<td>keyword</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Build Rock Paper Scissors</td>
<td>Synthesis: implement Math.random() method; improve game skills.</td>
</tr>
<tr>
<td>8</td>
<td>Introduction to “For” Loops</td>
<td>Understand “for” loops; syntax; initiate, control and end loops.</td>
</tr>
<tr>
<td>9</td>
<td></td>
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<tr>
<td>Lesson #</td>
<td>Section</td>
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<tr>
<td>10</td>
<td>Search Text for Your Name</td>
<td>1–7</td>
</tr>
<tr>
<td>11</td>
<td>Introduction to “While” loops</td>
<td>1–11</td>
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<tr>
<td>12</td>
<td>Dragon Slayer</td>
<td>1–6</td>
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<td>13</td>
<td>More on Control Flow in JavaScript</td>
<td>1–14</td>
</tr>
<tr>
<td>14</td>
<td>Choosing Your Own Adventure</td>
<td>1–6</td>
</tr>
</tbody>
</table>
Discover the length

Very good! What would the length of your name be?

Instructions

To discover the length of your name write your name within quotes. Then write a period (full stop) and the word `length` like this:

```
"yourName".length
```

When you're done click Save & Submit Code.
(Do this from now on every time you finish your exercise.)
In my case (my name is Leng) it would be

```
"Leng".length
```

Q&A Forum  Glossary

1. 2. Discover the length

2. Type your code here

3. Go to next lesson

Need some help?
Working with the console in Chrome:

https://developers.google.com/web/tools/chrome-devtools/debug/console/?hl=en
Open as panel

To open the dedicated Console panel, either:

- Press Ctrl + Shift + 3 (Windows / Linux) or Cmd + Opt + 3 (Mac).
- If DevTools is already open, press the Console button.

When you open the Console panel, the Console drawer collapses automatically.

Opening the Console

Access the Console as a full-screen, dedicated panel:
Relate what you are learning to implementing it in HTML:
Interacting with the user...

use popup boxes to code your interaction in HTML

Prompt Box

A prompt box is often used if you want the user to input a value before entering a page.

When a prompt box pops up, the user will have to click either "OK" or "Cancel" to proceed after entering an input value.

If the user clicks "OK" the box returns the input value. If the user clicks "Cancel" the box returns null.

Syntax

```javascript
window.prompt("sometext","defaultText");
```

The `window.prompt()` method can be written without the `window` prefix.

Example

```javascript
var person = prompt("Please enter your name", "Harry Potter");
if (person != null) {
    document.getElementById("demo").innerHTML = "Hello " + person + "! How are you today?";
}
```

http://www.w3schools.com/js/js_popup.asp
Sample code in using JS in HTML

```html
<html>
  <head>
    <title>Example of JS in HTML</title>
  </head>
  <body>
    <h1>Counting Puppies</h1>
    <script>
      for(var i=1; i<=3; i++) {
        if(i == 1) {
          alert(i + " puppy is in the classroom!");
        } else {
          alert("There are " + i + " puppies in the classroom");
        }
      }
    </script>
    <h1>...Finished counting</h1>
  </body>
</html>
```
Example using a button to call a function:
Using `document.write` example:

```html
<!DOCTYPE html>
<html>
    <head>
        <script>
            document.write('*Hello, COGS3 Students!*')
        </script>
    </head>
    <body>
        <h2>Understanding `document.write`:</h2>
        <p>
            <ol>
                <li>There are no restrictions on the contents of `document.write`. </li>
                <li>It does not have to output valid tags, close them or anything. </li>
                <li>You already have experience with `innerHTML` -- so perhaps you can use that just as easily</li>
            </ol>
        </p>
    </body>
</html>
```
Use HTML input types to get data from the user.
// Example to interact with the user
// Check if the user is ready to play!

function askToPlay()
{
    var userAnswer = document.getElementById("inputPlay");
    if (userAnswer.value === "yes")
    {
        document.getElementById("responsePlay").innerHTML = "I am so happy you want to play! <br>");
    }
    else {
        document.getElementById("responsePlay").innerHTML = "Oh no - Maybe later. Bye! <br>");
    }
}

</script>

<body>

<h1>Sample Interaction</h1>

<p>Do you want to play a game with me?</p>
<input id="inputPlay" type="text"><input type="submit" value="Submit your answer" onclick="askToPlay()">

<p id="responsePlay"></p>
</body>
</html>
Sample Interaction 1
Do you want to play a game with me?
Submit your answer

Sample Interaction 2
Do you want to play a game with me?

Sample Interaction 3
I am so happy you want to play!
Your assignment:
Part i

• Part (i):
  Complete Lesson 4 on codecademy
  Use the “code your own adventure game” to write an interactive HTML page.
  
  • Create a directory called JS within your public directory on the server.

File name: cg3xzzJSgame.html
(note: there are NO hyphens in the filename.)
Your assignment:
Part ii

- Part ii:
  Complete lesson 7 on Codecademy
  Use the “Rock Paper Scissors game” to write an interactive HTML page.
  Publish it in your JS directory inside public directory on the server.

File name: cg3xzzJSRPS.html
(note: there are NO hyphens in the filename.)
Your assignment: Part iii

- Part iii:
  Complete lesson 10 on Codecademy
  Use the “search your name in text” to write an interactive HTML page.
  Publish it in your JS directory inside public directory on the server.

File name: cg3xzzJSsearch.html
(note: there are NO hyphens in the filename.)
Your assignment: Part iv

- Part iv:
  Complete Lesson 12 on Codecademy
  Use the “Dragon Slayer” to write an interactive HTML page.
  Publish it in your JS directory inside public directory on the server.
  File name: cg3xzzJSDragon.html
  (note: there are NO hyphens in the filename.)
Part v:
Complete Lesson 15 on Codecademy
Use the “Adventure Part 2 game” to write an interactive HTML page.
Publish it in your JS directory inside public directory on the server.
File name: *cg3xzzJSadventure2.html* (note: there are NO hyphens in the filename.)
Your assignment:

Create a front page for all of the JS assignments and link the files on one single page.

- File name: `cg3xzzJSallPartA.html`
  (note: there are NO hyphens in the filename.)
- Save this file in public (not in JS!!)
- Make sure all of your links have the appropriate referencing.
- Styling your page will result in extra credit!