

Learn JavaScript with HTML

Tutorial



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JavaScript is a lightweight, interpreted programming language. It is designed for creating network-centric applications. It is complimentary to and integrated with Java. JavaScript is very easy to implement because it is integrated with HTML. It is open and cross-platform.

Why learn JavaScript?

JavaScript is a MUST for students and working professionals to become great Software Engineers. This is especially true when they are working in the Web Development Domain.

Key advantages of learning JavaScript:

- JavaScript is the most popular programming language in the world and that makes it a programmer's great choice. Once you've learned JavaScript, it helps you to develop great front-end as well as back-end software using different JavaScript based frameworks like jQuery, Node.JS etc.
- JavaScript is everywhere, it comes installed on every modern web browser, and so to learn JavaScript you really do not need any special environment setup. For example, Chrome, Mozilla Firefox, Safari and every browser you know as of today, supports JavaScript.
- JavaScript helps you create beautiful and crazy fast websites. You can develop your website using a console like look and feel and give your users the best Graphical User Experience.
- Due to high demand, there are many job opportunities and high pay for those who know JavaScript.
- There are lots of frameworks and Libraries already developed which can be used directly in your software development to reduce your time to market.

There could be thousands of good reasons to learn JavaScript Programming. But one thing is for sure, to learn any programming language, not only JavaScript, you just need to code, and code and finally code until you become an expert.

Go to the Tutorial Link below to begin learning JavaScript. You should start with the left menu JS Introduction, work through each tutorial in order down through JS Date Get Methods. Next, study the following individual sections: JS Conditions, JS Loop For, JS RegExp, and review HTML input pattern. These will be useful before attempting to complete the Assessment challenge project. You may find other sections and other sources are helpful as there is usually more than one way to write a piece of code. We prefer that you check the pattern match of the userid with

javaScript rather than on the HTML input, but the HTML pattern match is ok if you can't figure out how to do it in javaScript.

Keep in mind that the assessment environment and the tutorial practice environment are separate spaces and there is no backend to submit a form to in the assessment environment. You may or may not create a form, but if you say <form action="/action_page.php">, it will fail because there is no action_page.php in the assessment environment to submit to. A form tag is not needed for the button to work. Make your button call your functions on click.

Do not be concerned with information regarding various versions of JavaScript like ES1 or ES6 etc. as no versions will be mentioned in the challenge. You will be using the most up-to-date JavaScript version and the Chrome browser if you are accepted into the training class.

You should also revisit the HTML tutorial and study the JavaScript section there as it will help you access HTML elements from JavaScript.

https://www.w3schools.com/html/html_scripts.asp

Write all of the code yourself, copying complete sections of code or an entire document will be considered intellectual dishonesty, and are grounds for disqualification from entry.

This is a challenging assessment project but it's not difficult if you are patient and apply yourself to it. You passed the quizzes, so you are smart enough to do this. You need to believe in yourself and make it happen! Good luck!

Some of the assessment pages use complex and advanced HTML to create a more seamless learning environment. We have found that the Chrome browser is the most reliable for taking these assessments. The Chrome browser can be downloaded from this link: <https://www.google.com/chrome/>

Start Learning

Assessment

JavaScript with HTML Assessment Challenge Project

Using the tutorial and other resources you may find helpful complete this JavaScript assessment. If the requirements say use the innerHTML method then use that method. Do everything exactly as stated. Remember that you will have to understand and be able to explain each line of code that you submit. We will ask you about everything you write so pay attention and understand the code. After all, you wrote it so you should know what it does and how it works! Submitting code that was completed by someone else, or code found online published with the intention of solving this assessment (i.e. someone else has submitted a complete assignment to a third-party website and you copy that code) will be considered intellectual dishonesty and are grounds for disqualification for entry. Do what you can to learn each of the components necessary, create your own code, and be prepared to explain how all of it works.

Carefully follow the requirements below:

Starting with the HTML wrapper code in the Code Editor...

You may or may not use a <form>. Note that there is no backend process or program to submit a form to.

If you use a form and submit, you must suppress the default action or the page will clear/load unpredictable results.

Ask the user to input their first name, last name, a UserID, and a birthdate in type date format. The UserID must contain an uppercase, a lowercase, a number, and be 8 to 12 chars long.

Create a JS function to verify formats of the UserID field.

You will either need to use a For loop to iterate through your data fields character by character with JS functions like char.toUpperCase() and parseInt(char), or use Regular Expressions, to validate the UserID format.

Use the following variables (with exact variable names) to hold the data:

***uid* is UserID.**

***fname* is first name.**

***lname* is last name.**

***birthday* is birthday, using type 'date'.**

You have to write a function called "dateDiff" that accepts one date parameter and returns the number of days between the birthday provided and the current date.

Create an "Accept" button to execute your functions and create the following output:

If the UserID does not pass your verification, then print "Invalid UserID" to the Display window.

If the fname, lname, or birthday fields are left empty then print "Invalid fname" etc...

Print "fname lname you have been breathing for ### days!" where ### is the number returned by your dateDiff() function. Remember to convert milliseconds to days and only return the integer (whole) number of days.

If the number of days is less than (365*18) then print "You are probably not old enough to take this class!"

Use document.getElementById().innerHTML to display results and information messages on the Display window.

Create a "For loop" that loops 20 times and uses code similar to:

```
let str = "";  
str = str.padStart(i,"x"); // i is the loop counter
```

to print 20 lines of Xs from 1 to 20 Xs. The first line should have a single X and the 20th line should have 20 Xs.

Your Xs should be printed on the Display page as depicted in the example below.

Make sure you understand and can explain a For Loop, padStart(i,"X"), innerHTML and what the DOM (Document Object Model) is.

Your code output should show in the Display window. This serves as the equivalent of the browser window and shows the render of the DOM document you are coding.

The console window is used to display error and log messages *only*. It is for use in debugging your code. Output to the log window will not be considered as satisfying project requirements.

Your completed project display should look something like this at the top:

User Id:

First Name:

Last Name:

Birthday: mm / dd / yyyy

X
XX
XXX
XXXX
XXXXX
XXXXXX
XXXXXXX
XXXXXXXX
XXXXXXXXX
XXXXXXXXXX
XXXXXXXXXXX
XXXXXXXXXXXX

Remember that your code needs to be complete and working before you submit. Submitting incomplete code will reduce your chances of passing your interview.

It is better to submit working code later than non-working code early, but don't procrastinate or the class may fill up.

Images



Code



Save

Display



JavaScript

User ID

First Name

Last Name

Birthday mm/dd/yyyy

```
// put your JavaScript code to read HTML  
inputs // and validate inputs here using if  
statements // and  
document.getElementById().innerHTML to  
display results // write your JS functions  
here // write your JS Loop For here to print  
the Xs // use something like  
document.write(str.padStart(i,"x") + "  
");
```

Console

 Reset

 Submit