Project 1: Random Quote Generator Study Guide

Sections Of This Guide:

- **How to approach this project** includes detailed guidance to help you think about how to organize your code, project and files.
- **How to succeed at this project** lists the grading requirements for the project, with hints, links to course videos to refresh your memory and helpful resources.

How To Approach This Project

Beginning your first project can feel intimidating. And now that it's time to start writing your own code, without a teacher to follow along with, it's not uncommon to feel as though you've forgotten what you've learned so far. Don't worry. Even experienced coders can feel overwhelmed when staring at a blank file in the editor, wondering where to begin.

The way to break through this initial paralysis is to break down a large problem into a series of smaller, easier ones. Just find a first step, and then take it one small digestible chunk at a time until you reach the finish line.

If you get stuck, here are some helpful steps to follow:

1) Check the "**How To Succeed At This Project**" section below. For every instruction step, you'll find a link to a specific resource to help you.
2) Reread the original project instructions and refer back to the material in the unit, checking for anything you may have missed or forgotten.
3) Do a good Google search. Even professional developers use Google a dozen or more times a day. Example search: "js create an object".
4) Walk away from the computer for a minute. Often, just walking away from the screen for a few minutes can trigger a break through.
5) Reach out on Slack. Briefly describe what's not working, where the problem is, and what you've tried so far, then post a friendly question on Slack.

A problem solving process like this is how many developers solve most of the coding problems they encounter. And it's important to start practicing your own problem solving process early on, as getting better at problem solving is important for any developer.

For the basic requirements of this project, you'll create at least a pair of functions to grab a random quote object from the quotes array, and conditionally print its properties to the screen as string of HTML.

The getRandomQuote Function

This function needs to accomplish three basic tasks. Generate a random number, use the random number to grab a quote object from the quotes array, and return the random quote object.

```
function getRandomQuote(array) {
   // generate a random number between 0 and the last index in the array parameter
   // use the random number and box notation to grab a random item from the array
   // return the random item
 }
```

The printQuote Function

This function needs to call getRandomQuote and store it in a variable. And then using the properties in the quote object stored in the new variable, conditionally generate the HTML string using the template in the project instructions as your guide. Lasly, set the innerHTML of .quotebox to equal the complete HTML string.

```
function printQuote() {
  // create a variable that calls the getRandomQuote() function, passing in the quotes array as an argument
  // create a variable that initiates your HTML string
  // using the template in the project instructions, add the two default quote properties
  // if there is a quote.citation property, add it the string
  // if there is a quote.year property, add it the string
  // close the string with the necessary closing HTML tags
  // set the innnerHTML of the .quote-box to the complete HTML string
}
```

Pro Tip:
If you're not seeing the results you expect, try using the console.log() method to log variables and values to the console to get an idea of what your code is actually doing.

How To Succeed At This Project

Here are the things you need to do pass this project. Make sure you complete them ***before*** you submit. To help you, we've put together this guide that links each step directly to helpful resources.

- ❑ Create an array of objects to hold the data for your quotes. Name the array `quotes`.
  - ❑ *Related video:* What is an array?
  - ❑ *Related video:* Mixing and Matching Arrays and Objects
- ❑ Each quote object in the `quotes` array should have the following properties:
  - ❑ A `quote` and `source` property which contains a string.
  - ❑ An *optional* `citation` and `year` property.
    - ❑ *Related video:* The Object Literal
    - ❑ *Related video:* Javascript Booleans
- ❑ Create a function named `getRandomQuote` and inside that function:
  - ❑ Generate a random number.
  - ❑ Uses it to select a quote object from the quotes array with box notation.
  - ❑ Return the randomly selected quote object.
    - ❑ *Related video:* Introducing Functions
    - ❑ *Related practice:* Practice Basic Javascript Functions
    - ❑ *Related video:* Create a random number
    - ❑ *Related video:* Getting Information From a Function
- ❑ Create a function named `printQuote` and inside that function:
  - ❑ Create a variable that stores the getRandomQuote function.
  - ❑ Create a variable to store the HTML string that contains the quote and source properties using the example HTML in the instructions.
  - ❑ Use separate conditional statements to add the citation and year properties only if they exist.
  - ❑ Set innerHTML property of the `'quote-box'` div to equal the HTML string.
    - ❑ *Related video:* Getting Information From a Function
    - ❑ *Related video:* Combining Strings
    - ❑ *Related video:* Accessing Object Properties
    - ❑ *Related video:* Boolean Values
    - ❑ *Related practice:* If And Else Statements In Javascript
    - ❑ Related practice: Practice Basic Variables, Input & Output in JavaScript
    - ❑ *Related video:* Write The HTML