









Lab 5

Data Types and Variables

By Becky Phillips (b), Sarah Matilda Krulder (c), Julian Fee (c)


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Lab 5: Data Types and Variables

Due Thursday by 8:50am **Points** 10 **Submitting** a file upload
File Types pdf

Big Idea

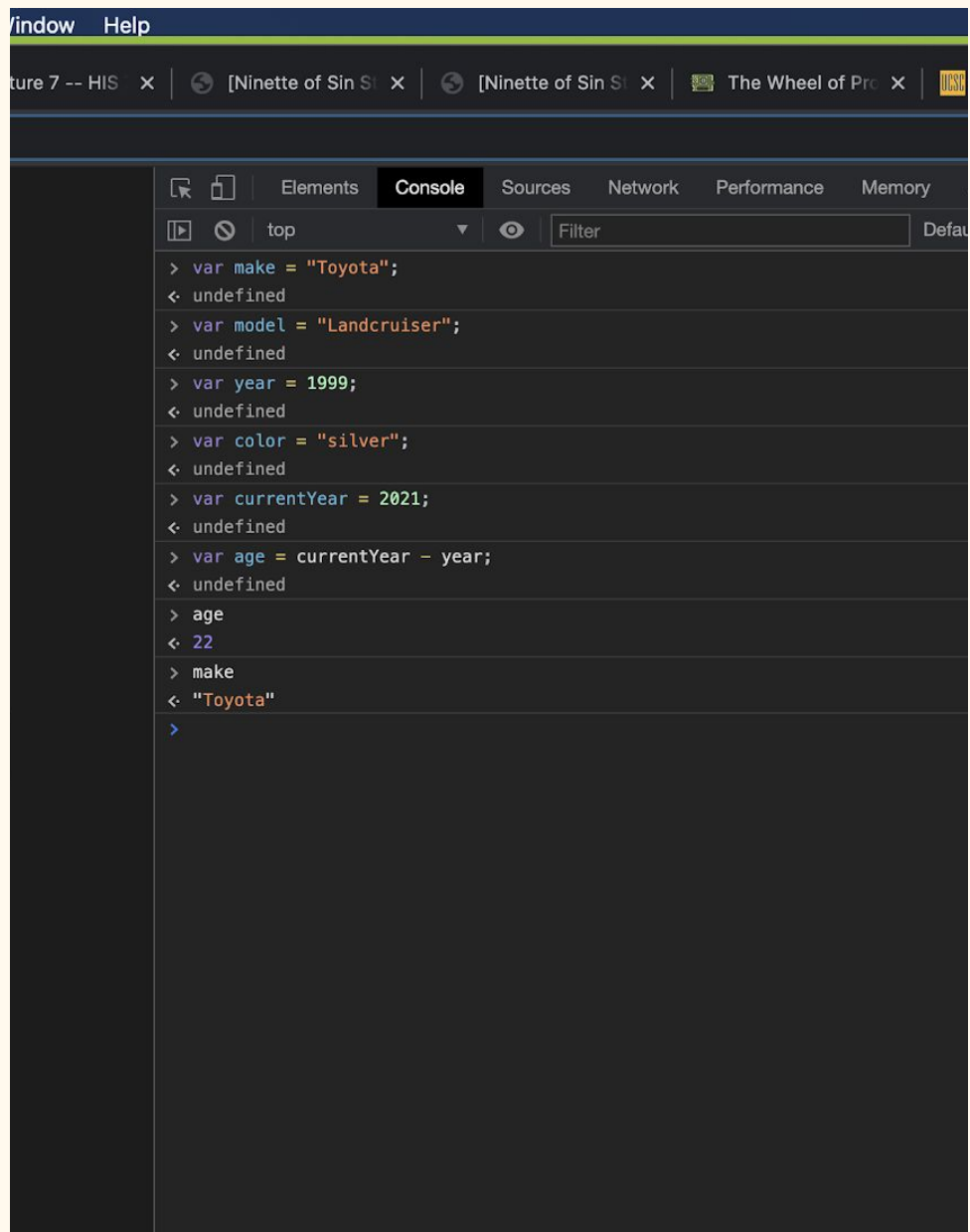
Working with your partner, experiment with basic JavaScript data types and variables.

Task 1: JavaScript Variables

In the console, create variables to hold data about your primary method of transportation

1. Enter the JavaScript Console in your browser.
2. Declare variables to hold the **make**, **model**, **color**, and **year** of your vehicle, example, `var year = 2004`
3. Declare a boolean variable **ownIt** for whether you own it or not.
4. Once you declare them, reference them and see them printed out in the console
5. Create a new variable **age** that subtracts the year from the current year
6. Use `console.log()` to print the value of age, example, `console.log("Age: " +`

Task 1: Practice Variables in the Console

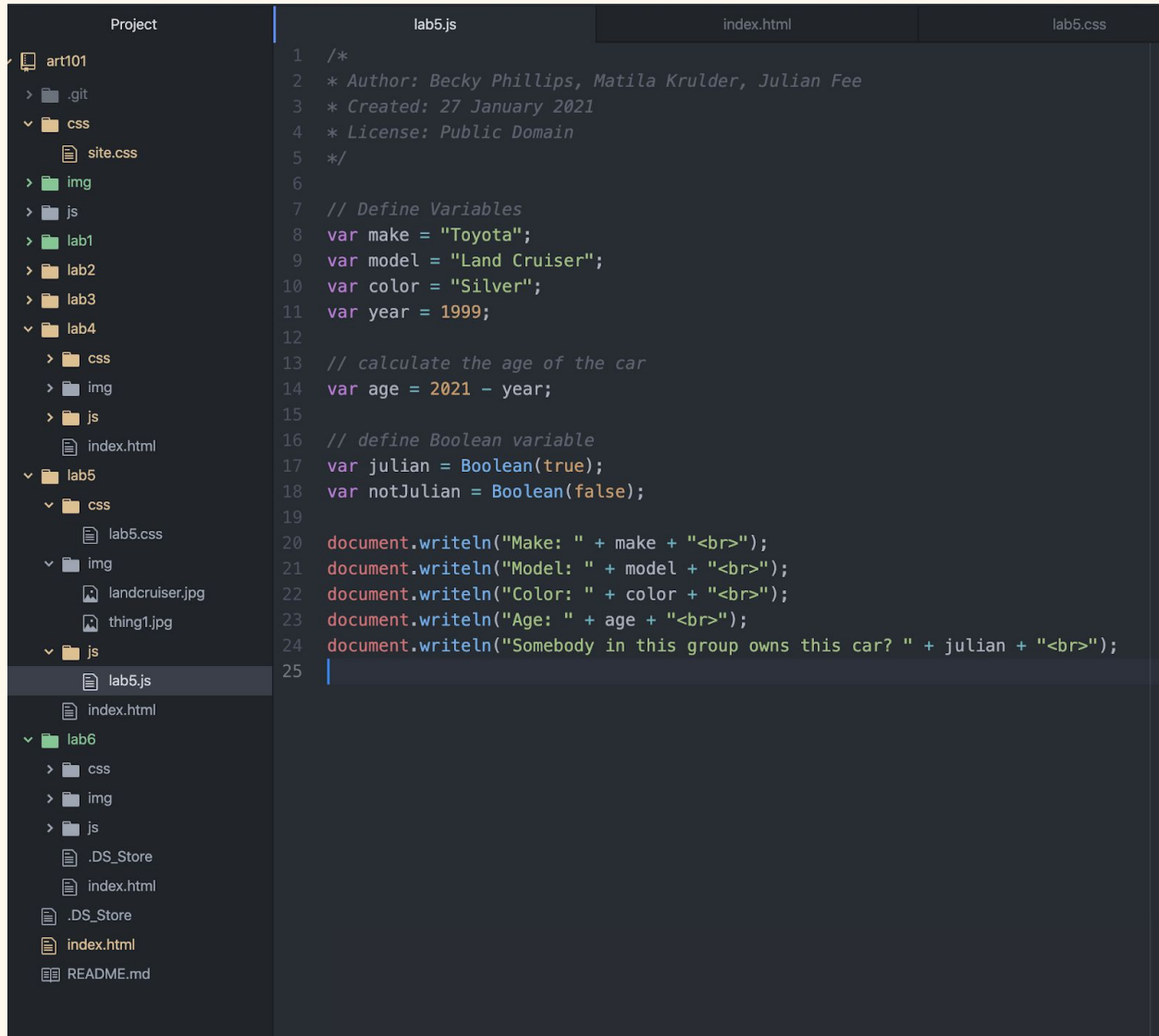


The screenshot shows a web browser window with the developer console open. The console has tabs for Elements, Console, Sources, Network, Performance, and Memory. The Console tab is active, showing a list of log messages. The messages are as follows:

```
> var make = "Toyota";  
< undefined  
> var model = "Landcruiser";  
< undefined  
> var year = 1999;  
< undefined  
> var color = "silver";  
< undefined  
> var currentYear = 2021;  
< undefined  
> var age = currentYear - year;  
< undefined  
> age  
< 22  
> make  
< "Toyota"  
>
```

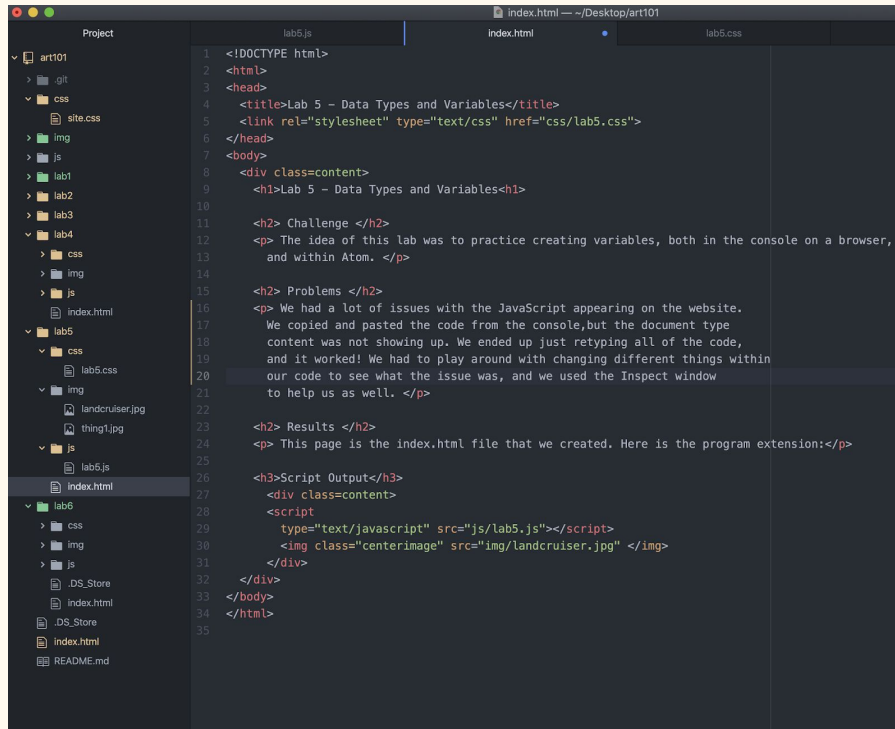
The browser's address bar shows several tabs: "Figure 7 -- HIS", "[Ninette of Sin S]", "[Ninette of Sin S]", "The Wheel of Pro", and "UCSB". The console interface includes a search bar with the text "top" and a "Filter" button.

Task 2: A JavaScript Program

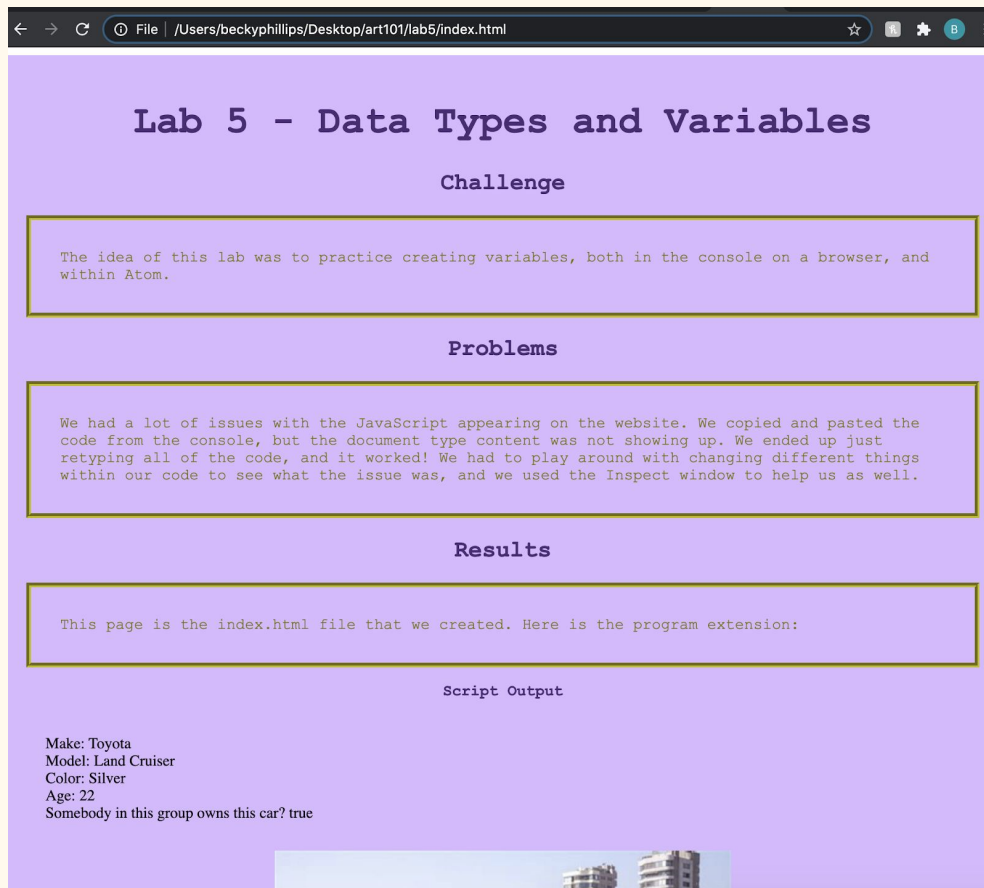


```
1  /*
2  * Author: Becky Phillips, Matila Krulder, Julian Fee
3  * Created: 27 January 2021
4  * License: Public Domain
5  */
6
7  // Define Variables
8  var make = "Toyota";
9  var model = "Land Cruiser";
10 var color = "Silver";
11 var year = 1999;
12
13 // calculate the age of the car
14 var age = 2021 - year;
15
16 // define Boolean variable
17 var julian = Boolean(true);
18 var notJulian = Boolean(false);
19
20 document.writeln("Make: " + make + "<br>");
21 document.writeln("Model: " + model + "<br>");
22 document.writeln("Color: " + color + "<br>");
23 document.writeln("Age: " + age + "<br>");
24 document.writeln("Somebody in this group owns this car? " + julian + "<br>");
25
```

Task 3: Create an index.html for Lab 5

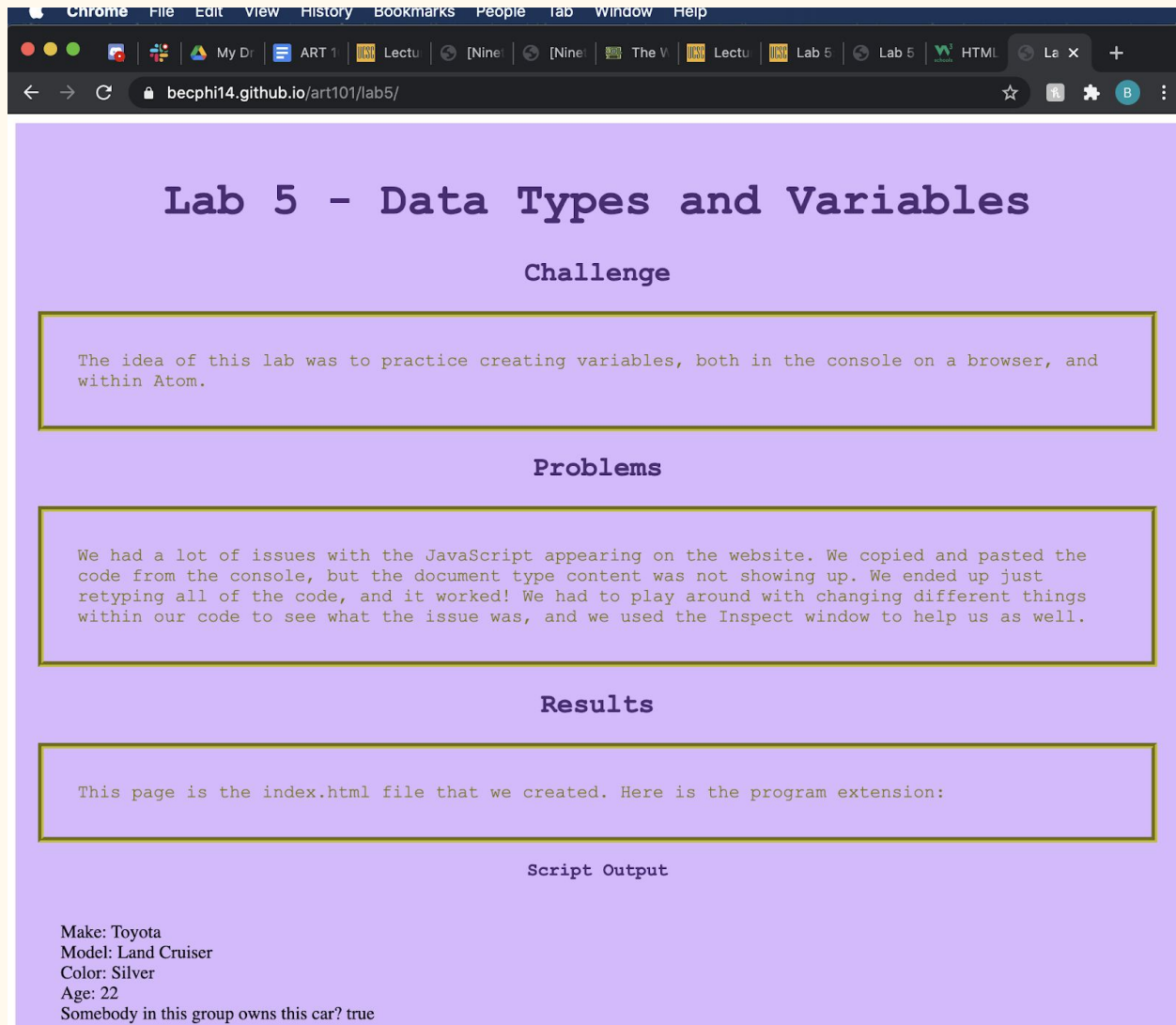


```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>Lab 5 - Data Types and Variables</title>
5   <link rel="stylesheet" type="text/css" href="css/lab5.css">
6 </head>
7 <body>
8   <div class=content>
9     <h1>Lab 5 - Data Types and Variables</h1>
10
11     <h2> Challenge </h2>
12     <p> The idea of this lab was to practice creating variables, both in the console on a browser,
13       and within Atom. </p>
14
15     <h2> Problems </h2>
16     <p> We had a lot of issues with the JavaScript appearing on the website.
17       We copied and pasted the code from the console, but the document type
18       content was not showing up. We ended up just retyping all of the code,
19       and it worked! We had to play around with changing different things within
20       our code to see what the issue was, and we used the Inspect window
21       to help us as well. </p>
22
23     <h2> Results </h2>
24     <p> This page is the index.html file that we created. Here is the program extension:</p>
25
26     <h3>Script Output</h3>
27     <div class=content>
28       <script
29         type="text/javascript" src="js/lab5.js"></script>
30       
31     </div>
32   </div>
33 </body>
34 </html>
35
```



Task 4: Debug, Upload, and Test

Screenshot of published Lab 5 webpage



Results

This page is the index.html file that we created. Here is the program extension:

Script Output

Make: Toyota
Model: Land Cruiser
Color: Silver
Age: 22
Somebody in this group owns this car? true



Summary of Efforts:

We came across several issues with the project, from JavaScript syntax errors, to linking the actual JavaScript file in our index.html. By looking at w3schools, the console, the Lab 3 assignment, and Wes' lectures, we were able to pick out what went wrong and find the solutions. We still are not sure how to format the Java within CSS because all the places we were looking for guidance from gave different answers. Although we struggled a bit in this lab, having to play around with all the different files and variables helped us to understand JavaScript better, and how the different files fit together.