

Course:	INFO-1272, Javascript I
Professor:	Krutarth Patel
Project:	Final Test, Part B
Due Date:	December 14th @11:59pm
Submission Folder:	Final Exam Part B - Coding
Student Name:	

Test Description

Create a web page which collects customer data from a form. When a customer clicks “Submit”, their data is stored in a Customer object, and then stored in an array. Once the data is collected and stored in an array, a user may click “Query” which will report statistics about the Customer data based on some filters. *See sample output on the next page.*

Instructions:

1. Start with the starter file attached to the submission Folder “FinalTest.txt”. Re-save the file using your first name followed by an underscore. For example, “Krutarth_FinalTest.html”.
2. Declare an empty global array called **customerArray** to store Customer objects.
3. Write a constructor for a **Customer** object, using the properties and methods shown here.

Customer Data

New Customer Form

First name:
Last name:
City: Province:
Age: Gender:

Customers

Jeff Smith is a 17 year old Male from London, ON.
Pauline MacIntyre is a 25 year old Female from Sydney, NS.
Kevin Firth is a 41 year old Male from London, ON.
Carol Green is a 23 year old Female from London, ON.
Lynda Reynolds is a 37 year old Female from Winnipeg, MB.

Query

Gender: Province: Age:

Total number of customers: 5
Number of customers living in ON: 3
Number of Male customers: 2
Number of customers 18 or older: 4

Customer	
First Name	String
Last Name	String
City	String
Province	String
Age	Number
Gender	String
toString()	Method - returns a string outputting this customer's details in this format “[Full Name] is a [Age] year old [Gender] from [City],[Province].”

4. Create a function that creates the 5 sample customers (below) and adds them to the customerArray. This function should be called when the page loads.

Customer Data:

First: Jeff Last: Smith City: London Province: ON Age: 17 Gender: Male	First: Pauline Last: MacIntyre City: Sydney Province: NS Age: 25 Gender: Female	First: Kevin Last: Firth City: London Province: ON Age: 41 Gender: Male	First: Carol Last: Green City: London Province: ON Age: 23 Gender: Female	First: Lynda Last: Reynolds City: Winnipeg Province: MB Age: 37 Gender: Female
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5. Create a function that displays customers to the “Customers” section of the web page. Loop through the array calling the **toString()** method for each customer and output the strings returned to this section.

Customers

Jeff Smith is a 17 year old Male from London, ON.
Pauline MacIntyre is a 25 year old Female from Sydney, NS.
Kevin Firth is a 41 year old Male from London, ON.
Carol Green is a 23 year old Female from London, ON.
Lynda Reynolds is a 37 year old Female from Winnipeg, MB.

6. Write a function on called **registerCustomer()** which will do the following:
- create a Customer object and populate the object with the input collected from the form input
 - add the Customer object to **customerArray**
 - clear all the input, to get the form ready for new data entry
 - call the function you made to output customers to the web page
- Use an event listener to call this function for the button “Submit”.

New Customer Form

First name:

Last name:

City: Province:

Age: Gender:

Submit

New Customer Form

First name:

Last name:

City: Province:

Age: Gender:

Submit

7. Write a function called `queryData()` which will search the `customerArray` and output the following information based on the filter fields:
- Total number of customers
 - Total number of customers living in [Selected Province]
 - Total number of customers matching [Selected Gender]
 - Total number of customers aged [Entered Age] and older
- Use an event listener to call this function for the button “Query”.

Note: Each statistic being output is based off of 1 filter each. You are not tracking the number of customers that match all filters.

Customers

Jeff Smith is a 17 year old Male from London, ON.
Pauline MacIntyre is a 25 year old Female from Sydney, NS.
Kevin Firth is a 41 year old Male from London, ON.
Carol Green is a 23 year old Female from London, ON.
Lynda Reynolds is a 37 year old Female from Winnipeg, MB.

Query

Gender: Province: Age:

Total number of customers: 5
Number of customers living in ON: 3
Number of Male customers: 2
Number of customers 18 or older: 4

Customers

Jeff Smith is a 17 year old Male from London, ON.
Pauline MacIntyre is a 25 year old Female from Sydney, NS.
Kevin Firth is a 41 year old Male from London, ON.
Carol Green is a 23 year old Female from London, ON.
Lynda Reynolds is a 37 year old Female from Winnipeg, MB.

Query

Gender: Province: Age:

Total number of customers: 5
Number of customers living in MB: 1
Number of Female customers: 3
Number of customers 25 or older: 3

Submission: Zip up all lab files and submit to “*Final Exam Part B (Coding) Fall 2022*”

Remember to submit your own work. Any sharing of code results in a mark of zero for all offending parties.

How will my lab be marked?

Marks	What are Marks Awarded For?
1	Comments/Coding Style <ul style="list-style-type: none">• Page documentation including name, date, purpose• Script comments at the top of each function and process• Correct use of indenting, whitespace, braces (Code should be readable)
1	No Errors On Load (Additionally too many errors could result in a zero)
	Web page runs and meets the lab requirements
1	Global Declaration <ul style="list-style-type: none">• A global array is created called customerArray
5	function Customer() <ul style="list-style-type: none">• Constructor for a Customer object• 5 sample customers created on startup
5	function registerCustomer() <ul style="list-style-type: none">• gets all input from within the form• creates a Customer object, populated with the input collected from the form input• adds the Customer object to customerArray• clears all the input• displays customer list
8	function queryData() <ul style="list-style-type: none">• Finds and outputs total number of customers• Finds and outputs the number of customers living in province• Finds and outputs the number of customers based on gender• Finds and outputs the number of customers based on age
4	Output <ul style="list-style-type: none">• Output matches the sample output• Display customer list having called the toString for each customer
25	Total