

ASSIGNMENT 7

Version 21/FA

MAPPINGS:

The following course objectives and/or outcomes are measured in this assignment:

COURSE OBJECTIVES

- 7D: Use arrays in your applications.
- 7F: Use sets and maps in your applications.

COURSE OUTCOMES

- 1. Use JavaScript to create interactive web applications.
- 2. Write clean, consistent code.

NOTE:

Assignment 7 is a silly assignment. Assignment requirements will be rather vague. In Assignment 7, you will need to use your knowledge of arrays, maps, sets, and jQuery to create a limited list-tracking application.

You can view a working solution for this assignment at the following URL:

<https://grosas.faculty.mccinfo.net/courses/info2124/v21fa/assignment07/index.html>

Continues . . .



GRADING:

Task	Points	Criteria
Part 1		
1.1 Setup		
6	5	Each line of the standard opening comment is worth 1 point. Subtract 1 point per missing item.
7	5	Pass/Fail
1.2 Test the Application		
There are no points in this section of the assignment.		
1.3 Adding Items to Franz Liszt's List		
1	5	Pass/Fail – event handler must be declared using jQuery.
2	2	Instructor's discretion. Deduct for errors or non-implementation only.
2a	2	Instructor's discretion. Deduct for errors or non-implementation only.
2b	2	Instructor's discretion. Deduct for errors or non-implementation only.
2c	2	Instructor's discretion. Deduct for errors or non-implementation only.
2di	2	Instructor's discretion. Deduct for errors or non-implementation only.
2dii	2	Instructor's discretion. Deduct for errors or non-implementation only.
3	4	Instructor's discretion. Deduct for errors or non-implementation only.
1.4 Clearing Franz Liszt's List		
1	4	Pass/Fail – event handler must be declared using jQuery.
1a	2	Instructor's discretion. Deduct for errors or non-implementation only.
1b	2	Instructor's discretion. Deduct for errors or non-implementation only.
1c	2	Instructor's discretion. Deduct for errors or non-implementation only.
2	5	Instructor's discretion. Deduct for errors or non-implementation only.
1.9 Cleanup		
There are no points in this section of the assignment.		
Total	46	

Penalties		
Deduct 50% from entire assignment for the use of the var keyword in variable declarations.		
Deduct 30% from the entire assignment if the solution does not load and/or if errors appear in the console that are not generated by explicit methods of the console object (in other words, errors that have not been troubleshooted and resolved by the student prior to submission).		
Deduct 60% from the entire assignment if JavaScript is inline/embedded instead of external.		
Deduct a maximum of 25% for failure to use jQuery methods. This is at the instructor's discretion and may be less than 25% if minor errors/oversight on the student's part.		
Deduct a maximum of 15% for code that does not comply with the course <i>Style Guide</i> and/or which is messy/unorganized, uncommented, or missing semicolons.		

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GENERAL NOTE:

You must use jQuery methods to interact with the DOM.

TASK:

MODIFY THE APPLICATION

1.1 SETUP

1. Review the course *JavaScript Style Guide* before starting this assignment. Part of the assignment will be graded on your adherence to the *Style Guide*.
2. Download **assignment07_starter.zip** from the *Module 7: Assignment* drop box in Canvas. The file is located beneath the heading *Assignment Resources*.
3. Extract **assignment07_starter.zip**. The file contains three files and one subfolder:
 - a. a single HTML document named *index.html*.
 - b. a single JavaScript file named *script.js*.
 - c. a single stylesheet named *style.css*
 - d. a single folder named *img*, which contains two images and a text file.
4. **script.js** has already been linked to **index.html** for you.
5. Open **script.js**.
6. Add the **Standard Opening Comment** to the top of the script (**5 points**).
7. Add "use strict" beneath the **Standard Opening Comment**. (**5 points**).

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1.2 TEST THE APPLICATION

1. Double-click **index.html** to launch it in your browser; examine the application's behavior.
 - a. The page will open, and the content shown in Figure 1 should appear.
 - b. Input an item into the text field. Click the buttons. Nothing should happen.

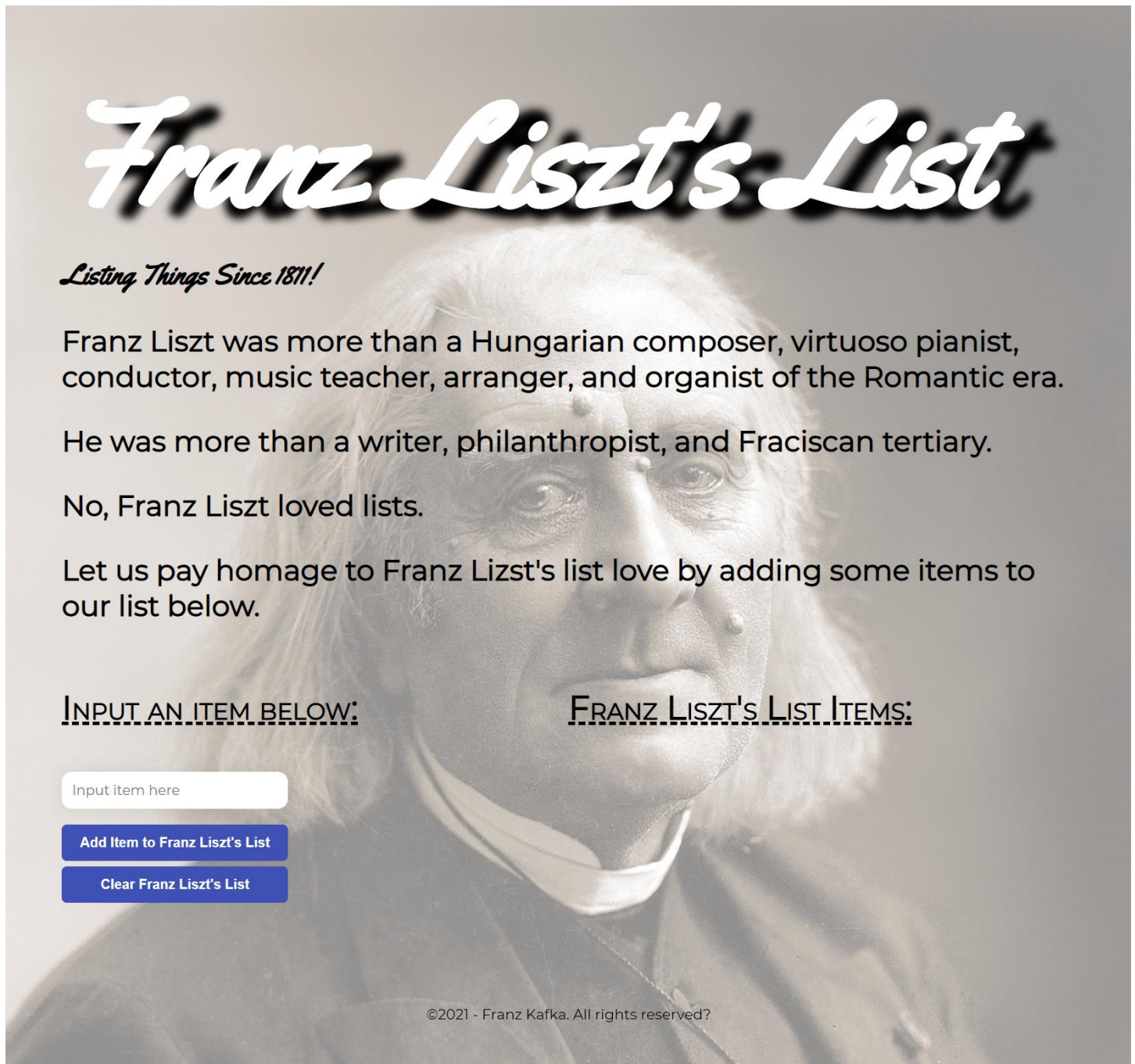


Figure 1: Starter version of index.html



1.3 ADDING ITEMS TO FRANZ LISZT'S LIST

1. Define an array, map, or set to hold the list items. **(5 points)**
2. Define a `click()` event listener for `#addItemToList` **(2 points)**, which accomplishes the following:
 - a. Trim the contents of the text field. **(2 points)**.
 - b. Replace the contents of the text field with the trimmed value. **(2 points)**.
 - c. If the text field is empty, display an error such as the one shown in Figure 2. **(2 points)**.

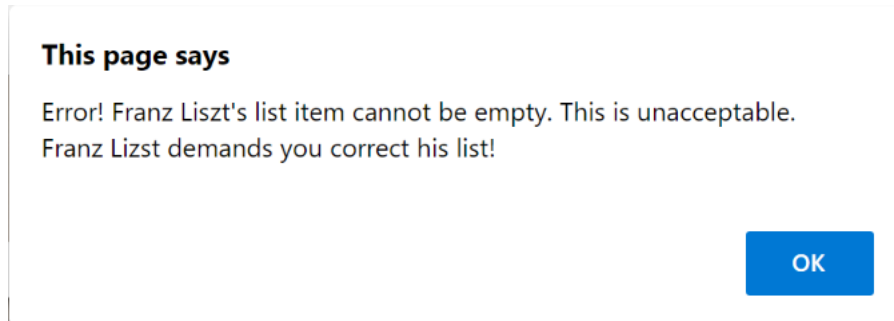


Figure 2

- d. If the text field is not empty,
 - i. Check to see if the array, map, or set already contains the input item. If the item already exists, display an error such as the one shown in Figure 3. The duplicate check should be case insensitive, meaning **A**pple and **a**pple should be seen as duplicates. **(2 points)**.

This page says

Error! You are attempting to enter a duplicate value!

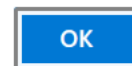


Figure 3

- ii. If the array, map, or set does not contain the input item add the input item to the array, map, or set. Then, use jQuery methods to append the item to the existing unordered list with the ID value `#listItemsHolder` – an example of this is shown in Figure 4, on the next page. **(2 points)**.

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Franz Liszt's List

Listing Things Since 1811!

Franz Liszt was more than a Hungarian composer, virtuoso pianist, conductor, music teacher, arranger, and organist of the Romantic era.

He was more than a writer, philanthropist, and Franciscan tertiary.

No, Franz Liszt loved lists.

Let us pay homage to Franz Liszt's list love by adding some items to our list below.

INPUT AN ITEM BELOW:

FRANZ LISZT'S LIST ITEMS:

- cheese

Add Item to Franz Liszt's List

Clear Franz Liszt's List

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Figure 4

Continues...

3. Franz Liszt's list should hold a maximum of six items only. Attempting to input more than six items should display an error such as the one shown in Figure 5. Items in excess of six should not be stored. (4 points).

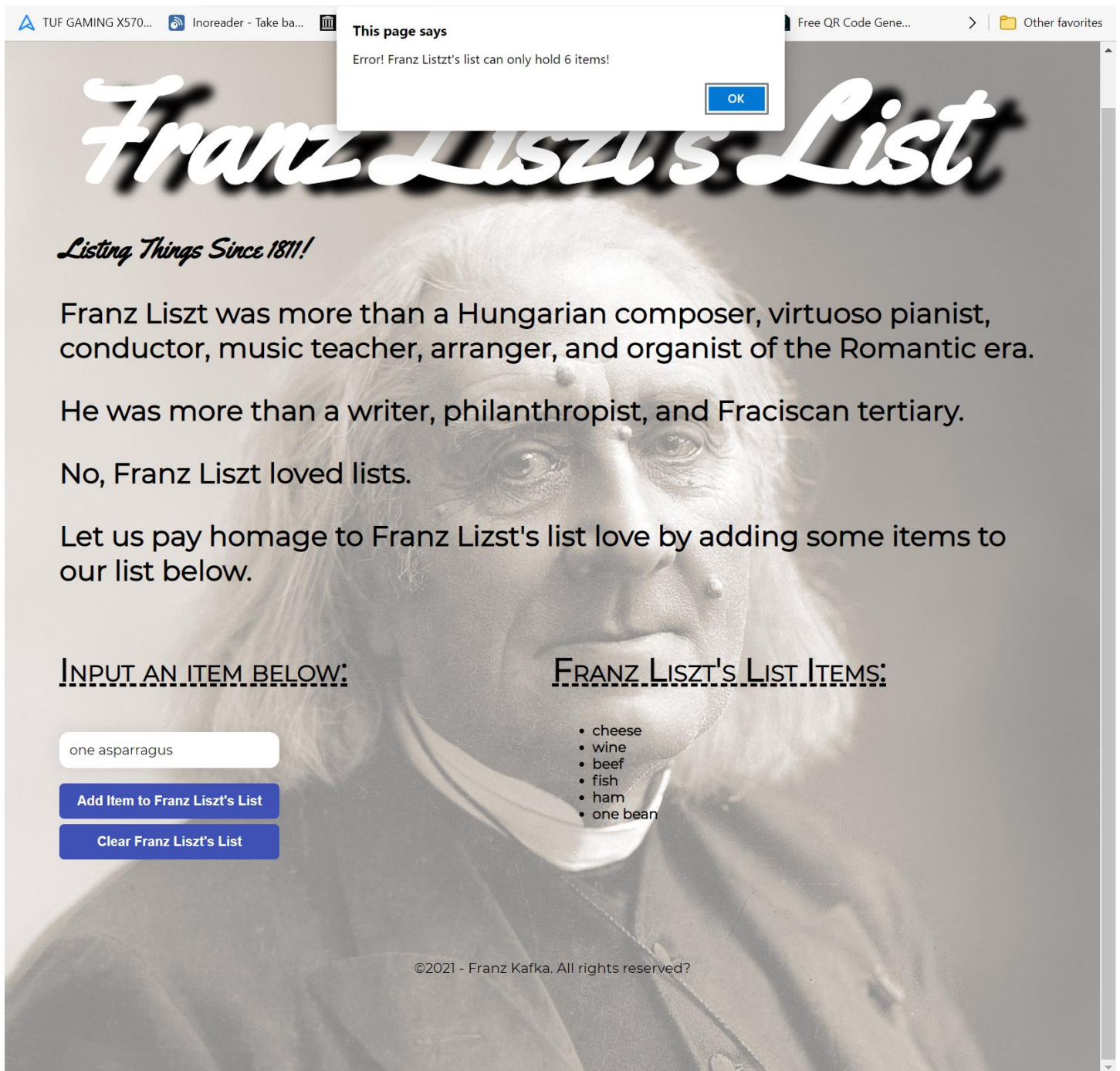


Figure 5



1.4 CLEARING FRANZ LISZT'S LIST

1. Define a `click()` event listener for `#clearList` **(2 points)**, which accomplishes the following:
 - a. Use jQuery methods to clear the contents of the unordered list with the ID value `#listItemsHolder`.
(2 points)
 - b. Clear any array, map, or set holding list items internally.
(2 points)
 - c. Reset any other structures you may have used to track item count.
(2 points)
2. The user should be able to clear the list, then add six new items *without* having to reload the page. **(5 points)**

1.5 CLEANUP

1. Test your application. If necessary, use the browser's developer tools to troubleshoot any errors you may have.
2. Comment and clean up your code:
 - a. Make sure to document what functions and blocks of code do.
 - b. Ensure consistent alignment, spacing, and carriage returns.
 - c. Make sure to remove non-used code; comments should describe your code only.

SUBMISSION

When complete, create a single **ZIP** file containing your solution for this assignment. The ZIP file should contain all files included in the original starter code or added as part of this assignment.

Attach and upload the ZIP file to Assignment 7 and submit.

NOTE: Canvas is configured to only accept ZIP files, DOC files, and DOCX files; it will not accept ZIPx, 7ZIP, pZip, RAR, etc.

End Assignment.

