

CP1295 Advanced Java Script

Test 01 5% of Term Grade

Wednesday May 29, 2024

K205

10:30 am – 12:30 pm

Test Time 90 Minutes

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Outline points

1.1 Windows and document objects

1.2.1 Textbox objects

1.2.2 Number Objects

1.2.4 String objects

1.3 Use of function expressions and function declarations

1.4 Attach function expression and function declaration to events

1.5.1 Register listeners that manipulate the DOM

1.5.2 Register event listeners that validate data

Description

Airline Booking System.

Flight Ticket Booking

Name:

Seats:

Seat Count:

INST	1	
PPPP	2	
PPPP	3	
QQQQ	4	
VVVV	2	

DATA REQUIRED
to book 1 to 4 seats

SEATS CURRENTLY BOOKED

Process

- Validate Input
 - * Not Blank
 - * Numeric for Seats
 - * Range Test 1 to 4 for Seats
 - * Total Seat Count cannot exceed 12
- IF No Errors
 - Add Seat to Text Area
 - Update Seat Count

CLEAR

- Blank all input fields
- Blank all output fields
- Reset seat count

(See Screen Shot 3)

Rules

Rule #1 Names cannot be blank.

Rule #2 Seat cannot be blank.

Rule #3 Seats Range must be 1 to 4 (inclusive).

Rule #4 Seat Count cannot go above 12.

- Instructions.
 - Download the Starter Project as a ZIP from D2L and extract the test folder with three files (HTML file, CSS file, and JavaScript file).
 - Run the code to ensure that it matches Screen Shot #1. (Before you start).
 - Follow Instructions for each screen shot and add the necessary JavaScript to ensure that it produces the correct results for each screen shot. The screen shots must be done in sequence. Preview all 12 screen shots to make note of all 4 Error Checking requirements.
 - Valid JavaScript Code requirements are on the last pages of this document.
 - You are not allowed to modify the HTML or CSS code in any way. This action would void the test.
 - **Create a Word Document and include the following:**
 - Your Name, Student Number
 - Save document as Your Name
 - ALL 12 required Screen shots with an identifying Number from 1 to 12. (One per Page)
 - On Last Page(s) a copy of the JavaScript used.
 - Copy and Paste as Text. DO not use a screen shot for the code.
 - The grading will be based solely on this code.
 - This code may be copied onto test computer to validate grading by grader. All 12 Screen shot tests will be run in sequence.
 - Check the grading rubric to verify that you have covered all of the listed points to maximize your grade.

Screen Shot 01

No Error Function Test – F1

(Testing of the downloaded code). Screen should match without any modifications to the code.

Flight Ticket Booking

Name: *

Seats: *

Seat Count: *

Output

Screen Shot 02

First Ticket purchased.

No Error Function Test – F2

1. Use the first 4 letters of your name as name: (Your discretion as to which part of your name you wish to use).
2. Seats: Set to 3
3. Select Process

Code Required:

- (1) Read the 2 Text Fields (Name and Seat)
- (2) Add the contents to the Text Area.
- (3) Update the Seat Count Text Area with the total number of seats

The screenshot shows a web application titled "Flight Ticket Booking" in a large blue font. Below the title, there are three input fields: "Name:" with the text "INST", "Seats:" with the text "3", and "Seat Count:" with the text "3". Below these fields are two buttons: "Process" and "Clear". At the bottom, there is a large text area labeled "Output" containing the text "INST 3". The entire interface is enclosed in a blue border.

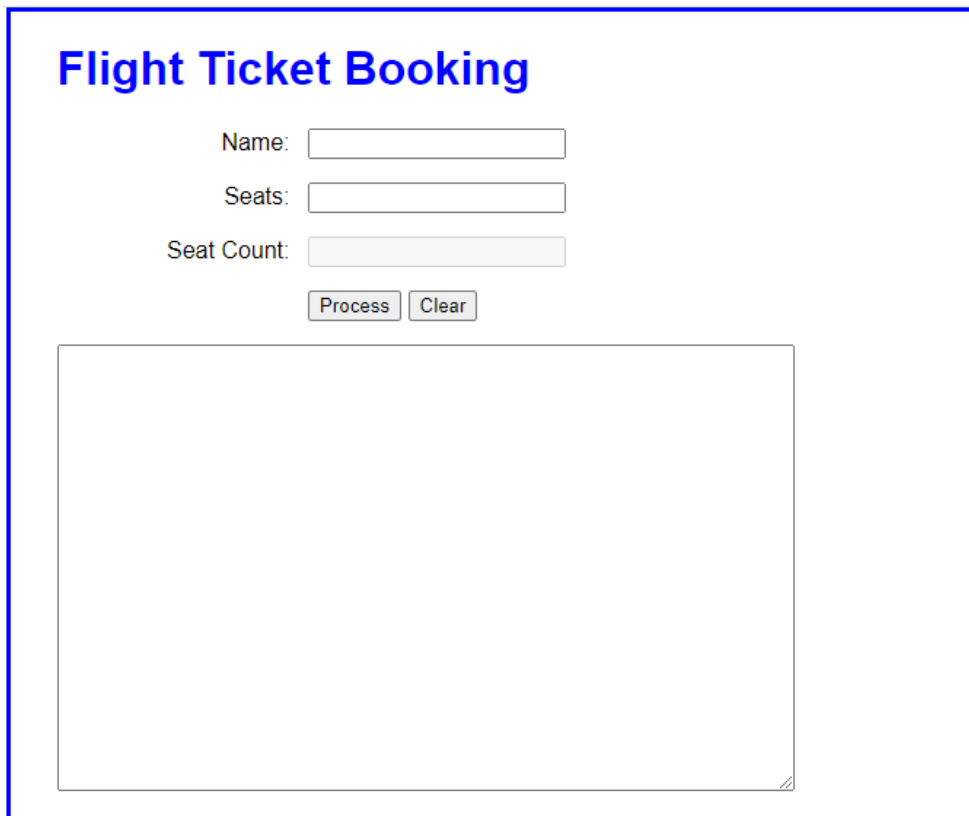
Screen Shot 03

No Error Function Test – F3

1. Press CLEAR

Code required:

- (1) Clear the contents of all three text fields
- (2) Clear the contents of the text area
- (3) If you are maintaining a seat count variable, then reset it to zero.



The screenshot shows a web form titled "Flight Ticket Booking" in blue text. Below the title are three input fields: "Name:", "Seats:", and "Seat Count:". Each field is followed by a text input box. Below these fields are two buttons: "Process" and "Clear". At the bottom of the form is a large, empty text area with a small cursor icon in the bottom right corner.

Flight Ticket Booking

Name:

Seats:

Seat Count:

Screen Shot 04

Do not use the Clear button for the remainder of the screen shots sequence.

No Error Function Test F4

1. Use the first 4 letters of your name as Name (Your discretion as to which part of your name you wish to use).
2. Seats: Set to 1
3. Select Process

No new code requirements.

Flight Ticket Booking

Name:

Seats:

Seat Count:

INST1

Screen Shot 05

No Error Function Test F5

1. Use "MMMM" as Name
2. Seats: Set to 2
3. Select Process

No new code requirements.

Flight Ticket Booking

Name:

Seats:

Seat Count:

INST	1
MMMM	2

Screen Shot 06

No Error Function Test F6

1. Use "PPPP" as Name
2. Seats: Set to 3
3. Select Process

No new code requirements.

Flight Ticket Booking

Name:

Seats:

Seat Count:

INST	1
MMMM	2
PPPP	3

Screen Shot 07

No Error Function Test F7

1. Use "QQQQ" as Name
2. Seats: Set to 4
3. Select Process

No new code requirements.

Flight Ticket Booking

Name:

Seats:

Seat Count:

INST	1
MMMM	2
PPPP	3
QQQQ	4

Screen Shot 08

Some Error Testing

Blank NAME TEST – Rule #1 application - Name Text Field cannot be blank.

1. BLANK out Name Text field
2. Seats: Set to 3
3. Select Process

Error Test E1

Code requirements:

- (1) Check Name Text field for Blank.
- (2) If Blank then set appropriate element message correctly
- (3) Blank the Name Text.
- (4) Do not modify other two text fields or modify text area.

Flight Ticket Booking

Name: Name cannot be blank

Seats:

Seat Count:

INST	1
MMMM	2
PPPP	3
QQQQ	4

Screen shot 09

Some Error Testing

Blank NAME TEST Rule #2 Application – Seat Text Field cannot be blank.

1. Use “RRRR” as Name
2. Blank out Seat Text Field
3. Select Process

Error Test E2

Code requirements:

- (1) Check Seat Text field for Blank.
- (2) If Blank then set appropriate element message correctly
- (3) Blank the Seat Text.
- (4) Do not modify other two text fields or modify text area.

Flight Ticket Booking

Name:

Seats: Seat must be a valid number (1..4)

Seat Count:

INST	1
MMMM	2
PPPP	3
QQQQ	4

Screen Shot 10

Some Error Testing Rule #3 – Seat Range is 1 to 4 (inclusive)

Testing for 'Out of Range' Seat Value

Error Test E3

1. Use "SSSS" as Name
2. Seats: Set to 5
3. Select Process

Code requirements:

- (1) Check Seat Value for out of range
- (2) If 'Out of Range' then set appropriate element message correctly
- (3) Blank the Seat Text.
- (4) Do not modify other two text fields or modify text area.

Flight Ticket Booking

Name:

Seats: Seat must be a valid number (1..4)

Seat Count:

INST	1
MMMM	2
PPPP	3
QQQQ	4

Screen Shot 11

Some Error Testing Rule #4 – Total seat count cannot exceed 12

Testing for total seat count limit exceeds 12

Error Test E4

1. Use "TTTT" as Name
2. Seats: Set to 3 (If this was processed then the total seat count would go to 13. This is not allowed)
3. Select Process

Code requirements:

- (1) Check for potential 'total seat count' situation where the count would exceed 12
- (2) If a 'total seat count' situation would occur then set appropriate element message correctly
- (3) DO NOT BLANK anything
- (4) Do not modify any text fields or text area

Flight Ticket Booking

Name:

Seats:

Seat Count: Total seat count cannot exceed 12

INST	1
MMMM	2
PPPP	3
QQQQ	4

Screenshot 12

Last Screen Shot

Booking the last 2 seats.

Flight Ticket Booking

Name:

Seats:

Seat Count:

INST	1
MMMM	2
PPPP	3
QQQQ	4
VVVV	2

No Error Function Test F8

1. Use "VVVV" as Name
2. Seats: Set to 2
3. Select Process

Code requirements: (None)

Clue Up reminder

(1) Be sure that you have all screen shots collected and copied into your word document with the Screen Shot Number indicated for EACH of the 12 screen shots. They must be done in sequence.

(2) Be sure that you have copied your JavaScript code (as TEXT) into the word document. Do Not use Screen shots for this step. The grading instructor may copy (as TEXT) your java script code and run it on a test computer as part of the grading. IF the text of the JavaScript cannot be extracted because it is graphics, the text may be void.

(3) Upload your completed Word Document back to D2L

End of Test.

Grading Rubric

CP1295 Test 01	Advanced JavaScript	100	
S01	Initial Screen Working Test	5	5
S02	First Ticket Purchased Student Name Used Field Data Collected Field Data Displayed Seat Count Updated	20	5 5 5 5
S03	Clear Button All text Fields blanked Text Area blanked	10	5 5
S04	First Ticket Test - Take 2 Seat Count reset worked in previous step	5	5
S05	Second Ticket Test Text Area update correct Seat Count correct	3	1 2
S06	Third Ticket Test Text Area update correct Seat Count correct	3	1 2
S07	Fourth Ticket Test Text Area update correct Seat Count correct	3	1 2
S08	Blank Name Error Test E1 Correct Error Message Displayed Other Text Fields - Not Changed Seat Count - Not Changed Text Area - Not Changed	12	6 2 2 2
S09	Blank Seat Error Test E2 Correct Error Message Displayed Other Text Fields - Not Changed Seat Count - Not Changed Text Area - Not Changed	12	6 2 2 2
S10	Out of Bounds Seat Error Test E3 Correct Error Message Displayed Other Text Fields - Not Changed Seat Count - Not Changed Text Area - Not Changed	12	6 2 2 2
S11	Total Seat Count Error Test E4 Correct Error Message Displayed No Text Fields are Changed Seat Count - Not Changed	12	6 2 2
S12	Fifth ticket test - Last 2 Seats Booked Text Area update correct Seat Count correct	3	1 2

Test 01- Scope Rules

Inclusions

(1) Code must be based on code demonstrated in this course or its pre-requisite course(s)

Course Text Book

Course Notes

Course Handouts

Exclusions

(2) Code must follow the following exclusion rule(s)

a. Note: getElementById, getElementsByTagName, innerHTML, outerHTML are not permitted in this course.

b. Where DOM element selection is required use only:

i. document.querySelector(sel)

ii. document.querySelectorAll(sel)

Other Rules

(3) You are not allowed to modify HTML document (Test may be declared void)

(4) You are not allowed to modify CSS document (Test may be declared void)

Submission Rules

(5) JavaScript must be copied and pasted into Word Document as TEXT. Use of Screen shot for the JavaScript may void the test as this will may render the JavaScript unreadable for grading purposes.

End of Test Documentation