Lab Sheet JavaScript solutions

Exercise-1 with Solution

Exercise-2

Write a JavaScript function that returns a passed string with letters in alphabetical order.

Example string: 'webmaster'
Expected Output: 'abeemrstw'

Note: Assume punctuation and numbers symbols are not included in the passed string..

```
<body onload="alphabet_order()">
<script>
function alphabet_order(str)
{

}
</body>
</html>
```

Exercise-3

Write a JavaScript function that accepts a string as a parameter and counts the number of vowels within the string.

Note: As the letter 'y' can be regarded as both a vowel and a consonant, we do not count 'y' as vowel here.

Sample Data and output:

Example string: 'The quick brown fox'

Expected Output: 5

```
1. function vowel_count(str1)
3.
4.
5.
6.
7.
8.
9.
        {
10.
11.
        }
12.
13.
      }
14.
15.}
16.Document.write(vowel_count("The quick brown fox"));
```

Exercise-5

Write a JavaScript function that accepts a string as a parameter and converts the first letter of each word of the string in upper case.

Example string: 'the quick brown fox'

Expected Output: 'The Quick Brown Fox'

JavaScript Code:

- //Write a JavaScript function that accepts a string as a parameter and con verts the first letter of each word of the string in upper case.
- 2.

```
3. function uppercase(str)
4. {
5.
6.
7.
8.
9.
   ;
10.
11.
12.}
13.document.write(uppercase("the quick brown fox"));
```

Exercise-6

Write a JavaScript program to get the current date.

Expected Output:

mm-dd-yyyy, mm/dd/yyyy or dd-mm-yyyy, dd/mm/yyyy

Sample Solution : -

HTML Code:

JavaScript Code:

```
2.
3.
6.
8.
9.
10.
11.
12.
13.
14.
15.
16.
17.
18.
19.
20.
21.
```

22

Exercise-7

Write a JavaScript program to calculate number of days left until next Christmas.

Sample Solution : JavaScript Code :

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- 1. 2.
- 3.
- 4.
- 4.
- 6.
- 7.
- 8. 9.

Explanation:

Declaring a JavaScript date: In JavaScript Date objects are based on a time value that is the number of milliseconds since 1 January, 1970 UTC. You can declare a date in the following ways:

```
new Date();

new Date(value);

new Date(dateString);

new Date(year, month[, day[, hour[, minutes[, seconds[, milliseconds]]]]]);
```

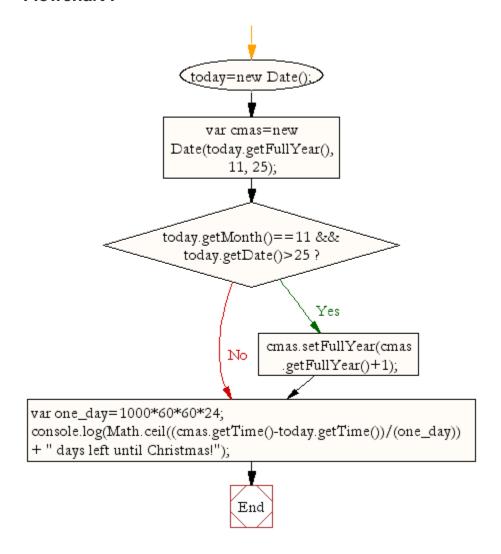
The getFullYear() method is used to get the year of the specified date according to local time. The value returned by the method is an absolute number. For dates between the years 1000 and 9999, getFullYear() returns a four-digit number, for example, 1985.

The getMonth() method is used to get the month in the specified date according to local time, as a zero-based value. The value returned by getMonth() is an integer between 0 and 11. 0 corresponds to January, 1 to February, and so on. The getDate() method is used to get the day of the month for the specified date according to local time. The value returned by getDate() is an integer between 1 and 31.

The getTime() method is used to get the numeric value corresponding to the time for the specified date according to universal time.

The Math.ceil() function is used to get the smallest integer greater than or equal to a given number.

Flowchart:



JavaScript Basic : Exercise

Write a JavaScript program to calculate multiplication and division of two numbers (input from user).

Sample Form:

```
1st Number: 12
2nd Number: 10
 Multiply
           Divide
The Result Is:
120
Sample Solution : -
HTML Code:
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   1. <!DOCTYPE html
   2. <html>
   3. <head>
   4. <meta charset=utf-8 />
   5. <title>JavaScript program to calculate multiplication and division of two
      numbers </title>
   6. <style type="text/css">
   7. body {margin: 30px;}
   8. </style>
   9. </head>
   10. <body>
   11. <form>
   12.1st Number : <input type="text" id="firstNumber" /><br>
   13.2nd Number: <input type="text" id="secondNumber" /><br>
   14.<input type="button" onClick="multiplyBy()" Value="Multiply" />
   15.<input type="button" onClick="divideBy()" Value="Divide" />
   16.</form>
   17.The Result is : <br>
   18.<span id = "result"></span>
   19.
   20.</body>
  21.</html>
JavaScript Code:
view plaincopy to clipboardprint?
   1. function multiplyBy()
   2. {
   3.
   4.
   6. }
   8. function divideBy()
   9. {
```

10. 11. 12. 13.}

Explanation:

document.getElementById(id).value: The value property sets or returns the value of the value attribute of a text field.

document.getElementById("result").innerHTM: The innerHTML property sets or returns the HTML content (inner HTML) of an element.

JavaScript Conditional Statement and loops: Exercise

Write a JavaScript program that accept two integers and display the larger.

Sample Solution:-

JavaScript Code:

JavaScript Conditional Statement and loops: Exercise-2

Write a JavaScript conditional statement to find the sign of product of three numbers. Display an alert box with the specified sign.

Sample numbers: 3, -7, 2 Output: The sign is -Sample Solution:-

JavaScript Code:

23

view plaincopy to clipboardprint? 1. 2. 3. 4. 5. 6. 8. 9. 16 11 12 13 14 15 16 17 18 19 20 21 22

JavaScript Array: Exercise-1

Write a JavaScript function to check whether an `input` is an array or not.

```
Test Data:
document.write(is_array('w3resource'));
document.write(is_array([1, 2, 4, 0]));
false
true
```

Sample Solution : avaScript Code :

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- 1. 2.
- 3.
- 4.
- 5.
- 6.
- 7.

JavaScript Array: Exercise-2

Write a JavaScript function to clone an array.

Test Data:

document.write(array_Clone([1, 2, 4, 0]));
document.write(array_Clone([1, 2, [4, 0]]));

[1, 2, 4, 0]

[1, 2, [4, 0]]

Sample Solution : -

JavaScript Code:

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- 1.
- 2.
- 4.
- JavaScript Array: Exercise-5

Write a simple JavaScript program to join all elements of the following array into a string.

Expected Output:

"Red, Green, White, Black"

"Red, Green, White, Black"

"Red+Green+White+Black"

Sample Solution : -

JavaScript Code:

1.		
2.		
3.		
4		

JavaScript Array: Exercise-7

Write a JavaScript program to sort the items of an array.

Sample array: var arr1 = [3, 8, 7, 6, 5, -4, 3, 2, 1];

Sample Output: -4,-3,1,2,3,5,6,7,8

Sample Solution:
JavaScript Code:
view plaincopy to clipboardprint?

1. 2. 3. 4. 5. 6. 7. 8. 9. 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 8 9 10 10 10 10 10 10 1	avaSo	ript Code :	
2. 3. 4. 5. 6. 7. 8. 9. 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	ew plaince	py to clipboardprint?	
2. 3. 4. 5. 6. 7. 8. 9. 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27			
3. 4. 5. 6. 7. 8. 9. 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	1.		
4. 5. 6. 7. 8. 9. 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27			
5. 6. 7. 8. 9. 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	3.		
6. 7. 8. 9. 10 11. 12 13. 14. 15. 16. 17. 18 19. 20 21. 22 23. 24. 25. 26. 27.			
7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27.	5.		
8. 9. 10 11. 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27			
9. 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27			
10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	8.		
11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27			
12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	10		
13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27.			
14 15 16 17 18 19 20 21 22 23 24 25 26 27	12		
15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27.	13		
16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27.	14		
17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27.	15		
17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27.	16		
19. 20. 21. 22. 23. 24. 25. 26. 27.			
19. 20. 21. 22. 23. 24. 25. 26. 27.	18		
 21. 22. 23. 24. 25. 26. 27. 			
 21. 22. 23. 24. 25. 26. 27. 	20		
 22 23 24 25 26 27 			
 23. 24. 25. 26. 27. 	22		
24252627			
25.26.27.			
26. 27.			
27			

JavaScript Array: Exercise-15

Write a JavaScript program to display the colors in the following way:

```
Here is the sample array:

color = ["Blue ", "Green", "Red", "Orange", "Violet", "Indigo", "Yellow "];

o = ["th", "st", "nd", "rd"]

Output

"1st choice is Blue ."

"2nd choice is Green."

"3rd choice is Red."
```

JavaScript Conditional Statement and loops: Exercise-5

Write a JavaScript for loop that will iterate from 0 to 15. For each iteration, it will check if the current number is odd or even, and display a message to the screen.

Sample Output:

"0 is even"

"1 is odd"

"2 is even"

JavaScript Code:



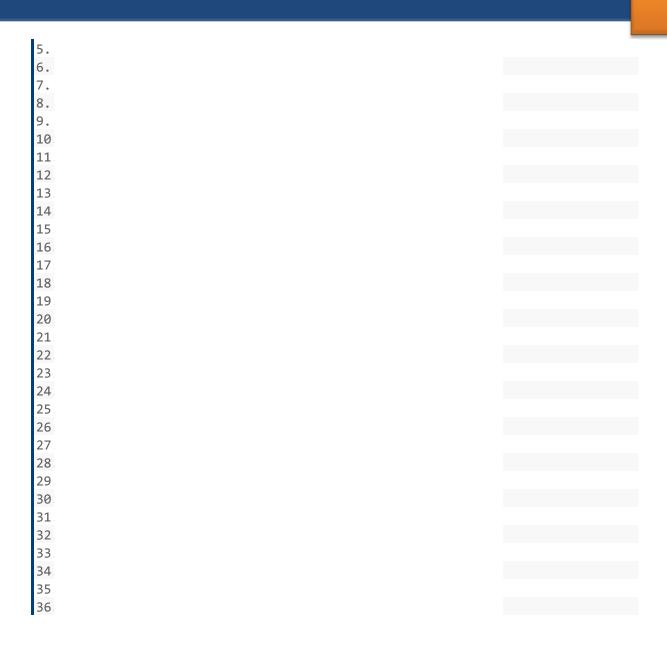
JavaScript Conditional Statement and loops: Exercise-4

Write a JavaScript conditional statement to find the largest of five numbers. Display an alert box to show the result.

Sample numbers: -5, -2, -6, 0, -1

Output: 0 **Sample Solution:-**1. 2. 5. 6. 8. 9. 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 JavaScript Conditional Statement and loops: Exercise-3 Write a JavaScript conditional statement to sort three numbers. Display an alert box to show the result. Sample numbers: 3, -7, 2 Output: The sign is -**Sample Solution:-**JavaScript Code: 1. 2.

3. 4.



JavaScript Datetime: Exercise-8

Write a JavaScript function to get difference between two dates in days.

```
Test Data:
document.write(date_diff_indays('04/02/2014', '11/04/2014'));
document.write(date_diff_indays('12/02/2014', '11/04/2014'));
Output:
216
-28
Sample Solution:-
JavaScript Code:
```



366 Sample Solution:-	
JavaScript Code: view plaincopy to clipboardprint?	
1. 2. 3. 4. 5. 6. 7. 8.	
L 0 : (B ()	
JavaScript Datetime : Exercise-18	
Write a JavaScript program to calculate age.	
Test Data: document.write(calculate_age(new Date(1982, 11, 4))); 32 document.write(calculate_age(new Date(1962, 1, 1))); 53 Sample Solution:-	
JavaScript Code :	
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1.	
2.	
3.4.	
5.	
6.	
7. 8.	
9.	
10	

JavaScript Datetime: Exercise-46

Write a JavaScript function to get time differences in days between two dates.

```
Test Data:
dt1 = new Date("October 13, 2014 08:11:00");
dt2 = new Date("October 19, 2014 11:13:00");
document.write(diff_days(dt1, dt2));
Sample Solution:-
JavaScript Code:
   1.
   2.
   3.
   6.
   9.
   10
   11
   12
   13
   14
   15
  16
JavaScript Datetime: Exercise-50
Write a JavaScript function to get the week start date.
Sample Solution:-
JavaScript Code:
   1.
   2.
   3.
   4.
   5.
   6.
   7.
   8.
   9.
```

10 11

JavaScript Datetime: Exercise-51 Write a JavaScript function to get the week end date. **Sample Solution:-**JavaScript Code: 1. 2. 3. 6. 8. 9. 10 11 JavaScript Datetime: Exercise-52 Write a JavaScript function to get the month start date. Sample Solution:-JavaScript Code: 2. 8. 9. 10

JavaScript String: Exercise-2

Write a JavaScript function to check whether a string is blank or not.

Test Data:

document.write(is_Blank("));		
document.write(is_Blank('abc')); true		
false		
Sample Solution:-		
JavaScript Code: view plaincopy to clipboardprint?		
•		
1. 2.		
3.		
4.		
5. 6.		
7.		
8.		
JavaScript String : Exercise-4		
Write a JavaScript function to remove specified nu string.	mber of characters	from a
Test Data:		
<pre>document.write(truncate_string("Robin Singh",4)); "Robi"</pre>		
Sample Solution:-		
JavaScript Code :		
view plaincopy to clipboardprint?		
1.		
2. 3.		
4.		
5.		
6.7.		
• · · · · · · · · · · · · · · · · · · ·		

JavaScript String: Exercise-9

Write a JavaScript function to capitalize the first letter of each word in a string.

Test Data:

document.write(capitalize_Words('js string exercises'));

"Js String Exercises"

Sample Solution:-

JavaScript Code:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.