

JAVASCRIPT CODING EXERCISES

**CODING FOR BEGINNERS
WITH HANDS ON PROJECTS**



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JAVASCRIPT CODING EXERCISES

CODING FOR BEGINNERS
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Display the current day and time

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>JavaScript current day and time</title>
</head>
<body></body>
</html>
```

JAVASCRIPT CODE

```
var today = new Date();
var day = today.getDay();
var daylist = ["Sunday","Monday","Tuesday","Wednesday",
",","Thursday","Friday","Saturday"];
console.log("Today is : " + daylist[day] + ".");
var hour = today.getHours();
var minute = today.getMinutes();
var second = today.getSeconds();
var prepand = (hour >= 12)? " PM ":" AM ";
hour = (hour >= 12)? hour - 12: hour;
if (hour===0 && prepand===' PM ')
{
if (minute===0 && second===0)
{
hour=12;
prepand=' Noon';
}
else
{
hour=12;
prepand=' PM';
}
}
if (hour===0 && prepand===' AM ')
{
if (minute===0 && second===0)
{
hour=12;
prepand=' Midnight';
}
else
{
hour=12;
prepand=' AM';
}
}
```

```
}  
console.log("Current Time : "+hour + prepand + " : " + minute + " : " +  
second);
```

Print the contents of the current window

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
<meta charset=utf-8 />
<title>Print the current page.</title>
</head>
<body>
<p></p>
<p>Click the button to print the current page.</p>
<button onclick="print_current_page()">Print this page</button>
</body>
</html>
```

JAVASCRIPT CODE

```
function print_current_page()
{
window.print();
}
```

Display the current date

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>Write a JavaScript program to get the current date.</title>
</head>
<body>
</body>
</html>
```

JAVASCRIPT CODE

```
var today = new Date();
var dd = today.getDate();

var mm = today.getMonth()+1;
var yyyy = today.getFullYear();
if(dd<10)
{
    dd='0'+dd;
}

if(mm<10)
{
    mm='0'+mm;
}
today = mm+'-'+dd+'-'+yyyy;
console.log(today);
today = mm+'/'+dd+'/'+yyyy;
console.log(today);
today = dd+'-'+mm+'-'+yyyy;
console.log(today);
today = dd+'/'+mm+'/'+yyyy;
console.log(today);
```

Find the area of a triangle

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
<meta charset=utf-8 />
<title>The area of a triangle</title>
</head>
<body>
</body>
</html>
```

JAVASCRIPT CODE

```
var side1 = 5;
var side2 = 6;
var side3 = 7;
var s = (side1 + side2 + side3)/2;
var area = Math.sqrt(s*((s-side1)*(s-side2)*(s-side3)));
console.log(area);
```


Check whether a given year is a leap year

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
<meta charset=utf-8 />
<title>Find Leap Year</title>
</head>
<body>
</body>
</html>
```

JAVASCRIPT CODE

```
function leapyear(year)
{
return (year % 100 === 0) ? (year % 400 === 0) : (year % 4 === 0);
}
console.log(leapyear(2016));
console.log(leapyear(2000));
console.log(leapyear(1700));
console.log(leapyear(1800));
console.log(leapyear(100));
```

OUTPUT

true

true

false

false

false

Calculate multiplication and division

of two numbers

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
<meta charset=utf-8 />
<title>JavaScript program to calculate multiplication and division of two
numbers </title>
<style type="text/css">
body {margin: 30px;}
</style>
</head>
<body>
<form>
1st Number : <input type="text" id="firstNumber" /><br>
2nd Number: <input type="text" id="secondNumber" /><br>
<input type="button" onClick="multiplyBy()" Value="Multiply" />
<input type="button" onClick="divideBy()" Value="Divide" />
</form>
<p>The Result is : <br>
<span id = "result"></span>
</p>
</body>
</html>
```

JAVASCRIPT CODE

```
function multiplyBy()
{
    num1 = document.getElementById("firstNumber").value;
    num2 = document.getElementById("secondNumber").value;
    document.getElementById("result").innerHTML = num1 * num2;
}

function divideBy()
{
    num1 = document.getElementById("firstNumber").value;
    num2 = document.getElementById("secondNumber").value;
    document.getElementById("result").innerHTML = num1 / num2;
}
```

OUTPUT

1st Number :

2nd Number:

The Result is :

Convert temperatures

To and from celsius, Fahrenheit in JAVASCRIPT

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>Write a JavaScript program to convert temperatures to and from
celsius, fahrenheit</title>
</head>
<body>
</body>
</html>
```

JAVASCRIPT CODE

```
function cToF(celsius)
{
  var cTemp = celsius;
  var cToFahr = cTemp * 9 / 5 + 32;
  var message = cTemp+'\xB0C is ' + cToFahr + ' \xB0F.';
  console.log(message);
}

function fToC(fahrenheit)
{
  var fTemp = fahrenheit;
  var fToCel = (fTemp - 32) * 5 / 9;
  var message = fTemp+'\xB0F is ' + fToCel + '\xB0C.';
  console.log(message);
}
cToF(60);
fToC(45);
```

OUTPUT

60°C is 140 °F.

45°F is 7.222222222222222°C.

Find the largest

Of three given integers

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to find the largest of three given integers.</title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function max_of_three(x, y, z)
{
  max_val = 0;
  if (x > y)
  {
    max_val = x;
  } else
  {
    max_val = y;
  }
  if (z > max_val)
  {
    max_val = z;
  }
  return max_val;
}

console.log(max_of_three(1,0,1));
console.log(max_of_three(0,-10,-20));
console.log(max_of_three(1000,510,440));
```

Output:

1

0

1000

Reverse a given string

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to reverse a given string.</title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function string_reverse(str)
{
  return str.split('').reverse().join('');
}

console.log(string_reverse("jsresource"));
console.log(string_reverse("www"));
console.log(string_reverse("JavaScript"));
```

OUTPUT

ecruosersj

www

tpircSavaJ

Replace every character with the character following it in the alphabet

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to replace every character in a given string with
the character following it in the alphabet.</title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function string_reverse(str)
function LetterChanges(text) {
//https://goo.gl/R8gn7u
var s = text.split("");
for (var i = 0; i < s.length; i++) {
// Caesar cipher
switch(s[i]) {
case ' ':
break;
case 'z':
s[i] = 'a';
break;
case 'Z':
s[i] = 'A';
break;
default:
s[i] = String.fromCharCode(1 + s[i].charCodeAt(0));
}

// Upper-case vowels
switch(s[i]) {
case 'a': case 'e': case 'i': case 'o': case 'u':
s[i] = s[i].toUpperCase();
}
}
return s.join("");
}
console.log(LetterChanges("PYTHON"));
```

```
console.log(LetterChanges("W3R"));
console.log(LetterChanges("php"));
```

Output:

QZUIPO

X4S

qIq

Capitalize The First Letter Of Each Word Of A Given String

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to capitalize the first letter of each word of a
given string.</title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function capital_letter(str)
{
  str = str.split(" ");

  for (var i = 0, x = str.length; i < x; i++) {
    str[i] = str[i][0].toUpperCase() + str[i].substr(1);
  }

  return str.join(" ");
}

console.log(capital_letter("Write a JavaScript program to capitalize the first
letter of each word of a given string."));
```

OUTPUT

Output:

Write A JavaScript Program To Capitalize The First Letter Of Each Word Of
A Given String.

Convert number to hours and minutes

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to convert a given number to hours and minutes.
</title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function time_convert(num)
{
  var hours = Math.floor(num / 60);
  var minutes = num % 60;
  return hours + ":" + minutes;
}

console.log(time_convert(71));
console.log(time_convert(450));
console.log(time_convert(1441));
```

OUTPUT

1:11

7:30

24:1

Count vowels in a given string

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to count the number of vowels in a given string.
</title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function vowel_Count(str)
{

  return str.replace(/[^aeiou]/g, "").length;
}

console.log(vowel_Count("Python"));
console.log(vowel_Count("htmlresource.com"));
```

Output:

1
5

Create a new string

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to create a new string without the first and last
character.</title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function without_first_end(str) {
  return str.substring(1, str.length - 1);
}
console.log(without_first_end('JavaScript'));
console.log(without_first_end('JS'));
console.log(without_first_end('PHP'));
```

Output:

avaScrip

H

Concatenate two strings

Except their first character

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to concatenate two strings except their first
character.</title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function concatenate(str1, str2) {
  str1 = str1.substring(1, str1.length);
  str2 = str2.substring(1, str2.length);
  return str1 + str2;
}

console.log(concatenate("PHP","JS"));
console.log(concatenate("A","B"));
console.log(concatenate("AA","BB"));
```

Output:

HPS

AB

Move last three character start of a specified string

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to move last three character to the start of a given
string. The string length must be 3.</title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function right_three(str) {
  if (str.length > 1)
  {
    return str.slice(-3) + str.slice(0, -3);
  }
  return str;
}
console.log(right_three("Python"));
console.log(right_three("JavaScript"));
console.log(right_three("Hi"));
```

Output:

honPyt

iptJavaScr

Hi

Compute the sum

Of three elements of a given array

Of integers of length 3

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to compute the sum of three elements of an given
integers of length 3.</title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function sum_three(nums)
{
  return nums[0] + nums[1] + nums[2];
}

console.log(sum_three([10, 32, 20]));
console.log(sum_three([5, 7, 9]));
console.log(sum_three([0, 8, -11]));
```

Output:

```
62
21
-3
```

Add two digits

Of a given positive integer

Of length two

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to add two digits of a given positive integer of
length two.</title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function add_two_digits(n)
{
  return n % 10 + Math.floor(n / 10);
}
console.log(add_two_digits(25))
console.log(add_two_digits(50))
```

Output:

7

5

Check whether a given year is a leap

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
<meta charset=utf-8 />
<title>Find Leap Year</title>
</head>
<body>
</body>
</html>
```

JAVASCRIPT CODE

```
function leapyear(year)
{
return (year % 100 === 0) ? (year % 400 === 0) : (year % 4 === 0);
}
console.log(leapyear(2016));
console.log(leapyear(2000));
console.log(leapyear(1700));
console.log(leapyear(1800));
console.log(leapyear(100));
```

OUTPUT

```
true
true
false
false
false
```

Check given positive number

Multiple of 3 or a multiple of 7

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to check whether a given positive number is a
multiple of 3 or a multiple of 7. </title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function test37(x)
{
  if (x % 3 == 0 || x % 7 == 0)
  {
    return true;
  }
  else {
    return false;
  }
}
```

```
console.log(test37(12));
console.log(test37(14));
console.log(test37(10));
console.log(test37(11));
```

Output:

```
true
true
false
false
```

Check a string starts with 'Java'

And false otherwise

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to check whether a string starts with 'Java' and
false otherwise.</title>
</head>
<body>
</body>
</html>
```

JAVASCRIPT CODE

```
function start_spec_str(str)
{
  if (str.length < 4)
  {
    return false;
  }
  front = str.substring(0, 4);
  if (front == 'Java')
  {
    return true;
  }
  else
  {
    return false;
  }
}

console.log(start_spec_str("JavaScript"));
console.log(start_spec_str("Java"));
console.log(start_spec_str("Python"));
```

Output:

```
true
true
false
```

Check two given integer values In the range 50..99

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to check whether two given integer values are in
the range 50..99 (inclusive). Return true if either of them are in the said
range.</title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function check_numbers(x, y)
{
  if ((x >= 50 && x <= 99) || (y >= 50 && y <= 99))
  {
    return true;
  }
  else
  {
    return false;
  }
}
```

```
console.log(check_numbers(12, 101));
console.log(check_numbers(52, 80));
console.log(check_numbers(15, 99));
```

OUTPUT

false

true

true

Find a value which is nearest to 100

HTML CODE

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width">
  <title>JavaScript program to find a value which is nearest to 100 from two
different given integer values.</title>
</head>
<body>

</body>
</html>
```

JAVASCRIPT CODE

```
function near_100(x, y) {
  if (x != y)
  {
    x1 = Math.abs(x - 100);
    y1 = Math.abs(y - 100);

    if (x1 < y1)
    {
      return x;
    }
    if (y1 < x1)
    {
      return y;
    }
    return 0;
  }
  else
    return false;
}

console.log(near_100(90, 89));
console.log(near_100(-90, -89));
console.log(near_100(90, 90));
```

Output:

90

-89

false