***JavaScript questions and answer :***

**31/08/21**

1. **what is identifier?**

**Answer**: an identifier is a sequence of character in the code that identifies a variable, function or property. in JavaScript identifiers are case sensitive and can contain Unicode letters, $,’\_’ and digits (0-9), but may not starts with a digit. Like: var Sumit, var sumit.

1. **what is var, let and const?**
2. var : it is function scoped, this means that if a variable is declared anywhere else besides a function using var. it will exit in the global scop. Variable declared using var can be redeclared as well ex: function foo(){ var n=6; console.log(n); var n=5; console.log(n); foo(); o/p 5 6
3. let: the ES6 introduced the let keyword, which lets you define variable that are blocked scope. As with variable declared with const, the variables declared with let can not be redeclared. Ex: function foo(n){ if(n == 6){ let num=2;}console.log(num);}var n=6; console.log(n); foo(6); o/p=6 , reference error

1. const: const is block scope. This means that the const is declared with const can not be redeclared or reassigned. Ex: const pi=3.14; console.log(pi);pi=3; o/p: 3.14, type error: assignment to constant variable.
2. **what is operators?**

**Answer**: An operator is **capable of manipulating a certain value or operand**. Operators are used to perform specific mathematical and logical computations on operands. In other words, we can say that an operator operates the operands. In JavaScript operators are used for compare values, perform arithmetic operations etc.

1. arithmetic operator =,-,\*, \*\*
2. assignment operator ==, =+, ==, \*=, /=, \*\*
3. string operator +
4. comparison operator ==, ===, !=, !==, >, <, >=, <=, ?
5. logical operator &&, ||, !
6. type of operator type of(return type of operator , instanceof(return true if an object is an instance of an object type
7. bitwise operator (32 bits no) $, !, ~, ^(xor), <<(Zero fill left shift), >>(Signed right shift), >>>(Zero fill right shift)
8. **what is datatypes?**

**Answer**: java script has dynamic types; this means that the same variable can be used to hold different datatype. Which determines the nature of the data to store into identifiers.

1. Number
2. String
3. Boolean
4. Null
5. Identifier
6. Object
7. Symbol (ES6)
8. **type of null?**

**Answer**: object

1. **what is primitive and non-primitive data types?**

**Answer**: Primitive data types are number, string, boolean, NULL, Infinity and symbol. Non-primitive data types is the object. The JavaScript arrays and functions are also objects.

1. **Practice all datatype?**

Answer:

**3/09/21**

**1) Write a JavaScript program that accept two integers and display the larger?**

**Answer:** <script>

    function integer(a,b) {

var isInteger = Number.isInteger(a) && Number.isInteger(b);

if(isInteger && a === b)

    document.write("Both numbers are equal!");

else if(isInteger)

    document.write("The larger number is " + Math.max(a,b));

else

    document.write("Please add an integer!");

}

integer(-1,-1);

</script>

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

**Answer:**

<script>

    function getLargest(a,b,c,d,e){

  if(a > b && a > c && a > d && a > e){return a;}

  if(b > a && b > c && b > d && b > e){return b;}

  if(c > a && c > b && c > d && a > e){return c;}

  if(d > a && d > b && d > c && d > e){return d;}

  if(e > a && e > b && e > c && e > d){return e;}

}

console.log(getLargest(1,2,3,4,5));

console.log(getLargest(12,3,4,5,1));

console.log(getLargest(23,4,5,1,2));

console.log(getLargest(41,5,1,2,3));

console.log(getLargest(10,1,2,3,4));

</script>

**4/09/21**

1. **write a program to display the sum of natural numbers?**

**Answer:**

<script>

const number = parseInt(prompt('Enter a positive integer: '));

let sum = 0;

for (let i = 1; i <= number; i++) {

    sum += i;

}

console.log('The sum of natural numbers:', sum);

</script>

1. **write a program to display sum of n natural numbers>?**

Answer:

<script>

    var i, n=5, sum=0;

    arr = new Array(10, 12, 13, 15, 19);

    for(i=0; i<5; i++)

      sum = sum + arr[i];

    document.write(sum);

  </script>

1. **write a program to print 100 prime numbers?**
2. <script>
3. const lowerNumber = parseInt(prompt('Enter lower number: '));
4. const higherNumber = parseInt(prompt('Enter higher number: '));
5. console.log(`The prime numbers between ${lowerNumber} and ${higherNumber} are:`);
6. for (let i = lowerNumber; i <= higherNumber; i++) {
7. let flag = 0;
8. for (let j = 2; j < i; j++) {
9. if (i % j == 0) {
10. flag = 1;
11. break;
12. }
13. }
14. if (i > 1 && flag == 0) {
15. console.log(i);
16. }
17. }
18. </script>

**4) write a program to print the below pattern?**

**\***

**\*\***

**\*\*\***

**Answer:**

<script>

    let n = 5;

let string = "";

for (let i = 1; i <= n; i++) {

  for (let j = 0; j < i; j++) {

    string += "\*";

  }

  string += "\n";

}

console.log(string);

</script>

**5) write a program to print the below pattern?**

**\***

**\*\***

**\*\*\***

**\*\*\*\***

**Answer:**

<script>

    let n = 5;

let string = "";

for (let i = 1; i <= n; i++) {

    for (let j = 0; j < n - i; j++) {

    string += " ";

  }

  for (let k = 0; k < i; k++) {

    string += "\*";

  }

  string += "\n";

}

console.log(string);

</script>

**6/09/21**

1. **Research on Breaks and Continue?**

**Answer:**

**a)break**  It was used to "jump out" of a switch() statement.

**b)continue** The continue statement breaks one iteration (in the loop), if a specified condition occurs, and continues with the next iteration in the loop.

1. **Research on String concatenation?**

**Answer:** Concat() method joins two or more strings, concat() does not change the existing strings, but returns a new string.

Let res= str1.concate(str2);

1. **Write a Javascript program using string to support only the following extension (JPG, PNG, docs). If you choose any other files it will show error message (This format not support).**

**Answer**:

<form method="post" enctype="multipart/form-data">

  <div>

    <label for="profile\_pic">Choose file to upload</label>

    <input type="file" id="profile\_pic" name="profile\_pic"

          accept=".jpg, .doc ,.png">

  </div>

  <div>

    <button>Submit</button>

  </div>

</form>

1. **Write a Javascript to reverse the last 4 letter in the string?**

|  |
| --- |
| **Input:PariTech** |
|  | **Output: ParihceT** |

**Answer:**

1. **Write a JavaScript function to capitalize the string?**

**Answer:**

<!DOCTYPE html>

<html>

<body>

<p style="color: black;">Click the button to convert the string to uppercase letters.</p>

<button onclick="myFunction()">click</button>

<p id="demo"></p>

<script>

function myFunction() {

  var str = "Achieversit Training Center";

  var res = str.toUpperCase();

  document.getElementById("demo").innerHTML = res;

}

</script>

</body>

</html>

1. **Write a JavaScript function to extract a specified number of characters from a string?**

**Answer:**

<!DOCTYPE html>

<html>

<body>

<h2>JavaScript Strings</h2>

<p>The substr() method extracts parts of a string.</p>

<p id="demo"></p>

<script>

let str = "AchieversIT";

document.getElementById("demo").innerHTML = str.substr(0, 8);

</script>

</body>

</html>

1. **Write a JavaScript function to concatenates a given string n times?**

**Answer:**

<script>

    repeat = function repeat(str, count) {

    if(typeof(count) == "undefined") {

    count =1;

  }

  return count < 1 ? '' : new Array(count + 1).join(str);

    }

console.log(repeat('Achieve'));

console.log(repeat('Achieve',2));

console.log(repeat('Achieve',3));

</script>

**7/09/21**

**09/09/21**

1. **Write a JavaScript Program to check the even numbers from 1-100?**

**Answer:**

<html>

    <head>

        <title>JavaScript to print Even Numbers within a Range!</title>

        <script>

            var numto = 100;

            for (i = 1; i <= numto; i++) {

                if (i % 2 == 0) {

                    console.log(i);

                }

            }

        </script>

    </head>

    <body>

        <h3>This Program is printing even number from 1 to 100</h3>

        <p>Please Check console</p>

    </body>

</html>

<!DOCTYPE html>

<html lang="en">

    <head>

        <meta charset="UTF-8">

        <meta http-equiv="X-UA-Compatible" content="IE=edge">

        <meta name="viewport" content="width=device-width, initial-scale=1.0">

        <title>Document</title>

    </head>

    <body>

    </body>

</html>

1. **Write a program to check the given number is armstrong number or not?**

**Answer:**

<!DOCTYPE html>

<html lang="en">

    <head>

        <meta charset="UTF-8">

        <meta http-equiv="X-UA-Compatible" content="IE=edge">

        <meta name="viewport" content="width=device-width, initial-scale=1.0">

        <title>Document</title>

    </head>

    <script>

        //

        //Without Inbuilt Function

        //

        const number = parseInt(prompt("Enter a positive number: "));

        if (number > 0) {

            const numberOfDigits = number.length;

            let sum = 0;

            // create a temporary variable

            let temp = number;

            while (temp > 0) {

                let remainder = temp % 10;

                sum += remainder \*\* numberOfDigits;

                // removing last digit from the number

                temp = parseInt(temp / 10); // convert float into integer

            }

            if (sum == number) {

                alert(number + " is an Armstrong number.");

            }

            else {

                alert(number + " is not an Armstrong number.");

            }

        } else {

            alert("Please Enter a pogitive number");

        }

        //

        //Using Inbuilt function

        //

        // var number = parseInt(prompt("Enter a positive number: "));

        // var sum = 0;

        // for (i = 0; i < number.length; i++) {

        //     sum += Math.pow(number.charAt(i), number.length);

        // }

        // if (sum == number) {

        //     alert(number + " is an Armstrong number.");

        // } else {

        //     alert(number + " is not an Armstrong number.");

        // }

    </script>

    <body>

    </body>

</html>

1. **Write a Program to check the given number is prime number or not?**

**Answer:**

<!DOCTYPE html>

<html lang="en">

    <head>

        <meta charset="UTF-8">

        <meta http-equiv="X-UA-Compatible" content="IE=edge">

        <meta name="viewport" content="width=device-width, initial-scale=1.0">

        <title>Document</title>

    </head>

    <script>

        //

        //Without Inbuilt Function

        //

        const number = parseInt(prompt("Enter a positive number: "));

        if (number > 0) {

            const numberOfDigits = number.length;

            let sum = 0;

            // create a temporary variable

            let temp = number;

            while (temp > 0) {

                let remainder = temp % 10;

                sum += remainder \*\* numberOfDigits;

                // removing last digit from the number

                temp = parseInt(temp / 10); // convert float into integer

            }

            if (sum == number) {

                alert(number + " is an Armstrong number.");

            }

            else {

                alert(number + " is not an Armstrong number.");

            }

        } else {

            alert("Please Enter a pogitive number");

        }

        //

        //Using Inbuilt function

        //

        // var number = parseInt(prompt("Enter a positive number: "));

        // var sum = 0;

        // for (i = 0; i < number.length; i++) {

        //     sum += Math.pow(number.charAt(i), number.length);

        // }

        // if (sum == number) {

        //     alert(number + " is an Armstrong number.");

        // } else {

        //     alert(number + " is not an Armstrong number.");

        // }

    </script>

    <body>

    </body>

</html>

1. **Find first an­­­­d last positions of an element in a array?**

**Answer:**

<!DOCTYPE html>

<html lang="en">

    <head>

        <meta charset="UTF-8">

        <meta http-equiv="X-UA-Compatible" content="IE=edge">

        <meta name="viewport" content="width=device-width, initial-scale=1.0">

        <title>Document</title>

        <script>

            var arr = [23, 34, 45, 456, 567, 567];

            var len = arr.length;

            alert('First Index is = ' + arr[0] + '\nLast Index is = ' + arr[len - 1]);

        </script>

    </head>

    <body>

    </body>

</html>

1. **Write a Program to check a number is palindrome or not?**

**Answer:**

1. **Write a JavaScript function that accepts a string as a parameter and find the longest word within the string?**

**Answer:**

<!DOCTYPE html>

<html lang="en">

    <head>

        <meta charset="UTF-8">

        <meta http-equiv="X-UA-Compatible" content="IE=edge">

        <meta name="viewport" content="width=device-width, initial-scale=1.0">

        <title>Document</title>

    </head>

    <script>

        const str = prompt("Enter any string: ");

        var artext = str.match(/\w[a-z]{0,}/gi);

        var longest = artext[0];

        var shortest = artext[0];

        for (var x = 1; x < artext.length; x++) {

            if (longest.length < artext[x].length) {

                longest = artext[x];

            }

            if (shortest.length > artext[x].length) {

                shortest = artext[x];

            }

        }

        alert('\'' + longest + '\' Is longest and \'' + shortest + '\' is shortest.');

    </script>

    <body>

    </body>

</html>