**TASK\_DAY 6**

**First blog Problems**

// 1. Calculate area of an equilateral triangle

var pi = 3.14;

var side\_equi\_triangle = 5;

console.log("Area of an equilateral triangle: "+((Math.sqrt(3) \* side\_equi\_triangle \* side\_equi\_triangle) /4).toFixed(2));

//2.Area Of Isosceles Triangle

var height\_isoceles = 10;

var base\_isoceles = 12;

console.log(("Area Of Isosceles Triangle: "+height\_isoceles \* base\_isoceles) /2 );

// 3. Volume Of Sphere

var radius\_sphere = 4;

console.log("Volume of Sphere: "+4\*pi\*radius\_sphere\*radius\_sphere);

//4. Volume Of Prism

var base\_prism = 10;

var height\_prism =20;

console.log("Volume of Prism: "+base\_prism\*height\_prism);

//5. Find area of a triangle.

var base\_triangle = 5;

var height\_triangle = 4;

console.log("Area of Triangle: "+0.5\*base\_triangle\*height\_triangle);

//6. Give the Actual cost and Sold cost, Calculate Discount Of Product

var actual\_cost = 100;

var sold\_cost = 80;

var discount;

discount = actual\_cost - sold\_cost;

console.log("Discount: "+discount);

// 7. Given their radius of a circle and find its diameter, circumference and area.

var radius\_circle = 4;

console.log("Diameter:"+2\*radius\_circle);

console.log("circumference:"+2\*pi\*radius\_circle);

console.log("Area:"+pi\*radius\_circle\*radius\_circle);

// 8. Given two numbers and perform all arithmetic operations.

var one\_number = 8;

var two\_number = 6;

console.log("Sum:"+one\_number+two\_number);

console.log("Subtraction:"+(one\_number-two\_number));

console.log("Multiplication:"+one\_number\*two\_number);

console.log("Division:"+(one\_number/two\_number).toFixed(2));

/\*9. Display the asterisk pattern as shown below(No loop needed):

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\*\*\*\*\* \*/

console.log("\*\*\*\*\*");

console.log("\*\*\*\*\*");

console.log("\*\*\*\*\*");

console.log("\*\*\*\*\*");

console.log("\*\*\*\*\*");

/\* 10. Calculate electricity bill?

For example, a consumer consumes 100 watts per hour daily for one month. Calculate the total energy bill of that consumer if per unit rate is 10? \*/

var watts\_perday = 100;

var total\_watts = 100 \* 30 ;

console.log("electricity Bill: " + (total\_watts \* 10)/1000)

**OUTPUT:**

Area of an equilateral triangle: 10.83

NaN

Volume of Sphere: 200.96

Volume of Prism: 200

Area of Triangle: 10

Discount: 20

Diameter:8

circumference:25.12

Area:50.24

Sum:86

Subtraction:2

Multiplication:48

Division:1.33

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electricity Bill: 30

**Second Blog Problems**

Error spotting:

1 <!DOCTYPE html>  
<html>  
<body>  
<script>  
alert( “I’m JavaScript!’);  
</script>  
Whats the error in this ?  
</body>  
</html>

<!DOCTYPE html>

<html>

<body>

 <script>

 alert( "I’m JavaScript!");

 </script>

 Whats the error in this ?

</body>

</html>

//In the above snippet the double quotes is not properly closed

2.

<!DOCTYPE html>  
<html>  
<body>  
<script src=”script.js”></script>  
</body>  
</html>

Script.js

alert(“I’m invoked!”);

In the above snippet there is no Error.

3. **Explain the below how it works**

explain.html

<!DOCTYPE html>  
<html>  
<body>  
 <script src=”script.js”></script>  
</body>  
</html>

script.js

alert("I'm JavaScript!");  
alert('Hello') // this line is not having semicolon  
alert(`Wor  
 ld`)  
alert(3 +  
1  
+ 2); // this is multiple line code and its working

In the above code, the script.js is added to the HTML file.

* An alert box will be shown with a message I'm JavaScript!
* Next another alert box with message Hello
* Another alert box with message Wor and “ld” in the next line.
* Last alert box with message 6.

4.**Fix the below to alert Guvi geek**

fix.html

<!DOCTYPE html>  
<html>  
<body>  
 <script src=”script.js”></script>  
</body>  
</html>

script.js

let admin=9, fname=10.5;   
fname = "Guvi";  
lname = "geek"  
admin = fname+lname;alert( admin ); // "Guvi geek"

Used string literals to show Guvi geek.

let admin=9, fname=10.5;

fname = "Guvi";

lname = "geek"

admin = `${fname} ${lname}`;

alert( admin ); // "Guvi geek"

5. **Fix the below to alert sum of two numbers**

fix.html

<!DOCTYPE html>  
<html>  
<body>  
 <script src=”script.js”></script>  
</body>  
</html>

script.js

let a = prompt("First number?");  
let b = prompt("Second number?");  
alert(a + b);

let a = prompt("First number?");

let b = prompt("Second number?");

alert(parseInt(a) + parseInt(b));

Coverting string to integers before summing.

6. **If you run the below scritpt you will get “**Code is Blasted**”**

**Explain Why the Code is blasted and how to diffuse it and get “**Diffused**”.**

script.js

var a = "2" > "12";//Don't touch below this  
if (a) {  
 console.log("Code is Blasted")  
}  
else  
{  
 console.log("Diffused")   
}

var a = "2" < "12";

//Don't touch below this

if (a) {

  console.log("Code is Blasted")

}

else

{

  console.log("Diffused")

}

**Solution: The condition for diffused is wrong, the condition should be false.**

**7.** let a = prompt("Enter a number?");//Don't modify any code below thisif (a) {  
 console.log( 'OMG it works for any number inc 0' );  
}  
else  
{  
 console.log( "Success" );  
}

let a = null;

//Don't modify any code below this

if (a) {

 console.log( 'OMG it works for any number inc 0' );

}

else

{

 console.log( "Success" );

}

**Solution: In order to get Success in the output ‘a’ should** **be null.**

8.**How to get the correct score in console.**

let value = prompt('How many runs you scored in this ball');  
if (value === 4) {  
console.log("You hit a Four");  
} else if (value === 6) {  
console.log("You hit a Six");  
} else {  
console.log("I couldn't figure out");  
}

let value = prompt('How many runs you scored in this ball');

if (value === 4) {

      console.log("You hit a Four");

} else if (value === 6) {

      console.log("You hit a Six");

} else {

      console.log(`You have hit ${value} runs`);

}

**Solution: The else condition should be modified inorder to get the correct score in the console.**

**9. Fix the code to welcome the boss**

// You cant change the value of the msg  
let message;if (null || 2 || undefined )  
{  
 let message = "welcome boss";  
}  
else  
{  
 let message = "Go away";  
}  
 console.log(message);

// You cant change the value of the msg

let message;

if (null || 2 || undefined )

{

 message = "welcome boss";

}

else

{

 message = "Go away";

}

  console.log(message);

**Solution: As “let” is a block scope variable, it should be removed inside the if block.**

**10. Fix the code to welcome the boss**

let message;  
let lock = 2;//Dont change any code below this if (null || lock || undefined )  
{  
 message = "Go away";  
}  
else  
{  
 message = "welcome";  
}  
 console.log(message);

let message;

let lock;

//Dont change any code below this

if (null || lock || undefined )

{

  message = "Go away";

}

else

{

 message = "welcome";

}

  console.log(message);

**Solution: As the condition checks whether lock is defined or not, if defined it prints “Go away” hence removed the declaration of lock.**

**Third blog problems**

1. **Output: 1234567891011**

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];var new\_string = “”;  
   
for (var i = 1; i < 11; i--) {  
 new\_string += numsArr[i]   
}console.log(new\_string);

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];

var new\_string = "";

for (var i = 0; i < 10; i++) {

 new\_string += numsArr[i]

}

console.log(new\_string);

**Solution: the array index should start from ‘0’ and end should be n-1 and it should be incremented.**

1. **Write a code to print the numbers in the array**

**Output**: 1,2,3,4,5,6,7,8,9,10,11

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];var new\_string = “”;  
 for (var i = 1; i < 11; i++) {  
 new\_string += numsArr[i] + ,   
}console.log(new\_string);

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];

var new\_string = "";

for (var i = 0; i < 11; i++) {

 if(i == 10)

    new\_string += numsArr[i];

else

    new\_string += numsArr[i] +  ",";

}

console.log(new\_string);

**Solution: the array index should start from ‘0’ and for the last element of the array we should not add “,”.**

1. **Write a code to print from last to first with spaces (Make sure there is no space after the last element 1)**

**Output: 11 10 9 8 7 6 5 4 3 2 1**

var new\_string = “”;  
   
for (var i = 11; i > 0; i — ) {  
 new\_string += numsArr[i] + “ “   
}  
console.log(new\_string);

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];

var new\_string = "";

for (var i = 11; i >= 0; i--) {

  if( i == 0)

    new\_string += numsArr[i];

  else

    new\_string += numsArr[i] + " ";

}

console.log(new\_string);

**solution: For the last element there should not be space hence added condition accordingly.**

**4. Write a code to replace the array value — If the number is even, replace it with ‘even’.Output:[ 1, “even”, 3, “even”, 5, “even”, 7, “even”, 9, “even”, … ]**

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];for (var i = 0; i <=10; i++) {  
 if(numsArr[i] %2 == 0 )  
 {  
 numsArr[i] = odd  
 }  
}  
console.log(numsArr);

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];

for (var i = 0; i <=10; i++) {

    if(numsArr[i] %2 == 0 )

    {

    numsArr[i] = "even";

    }

   }

   console.log(numsArr);

**Solution: n%2 == 0 should be even.**

5. Write a code to replace the array value — If the index is even, replace it with ‘even’.**Output**: [ “even”, 2, “even”, 4, “even”, 6, “even”, 8, “even”, 10, … ]

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];

for (var i = 0; i <=10; i++) {  
 if(numsArr[i] %2 == 0 )  
 {  
 numsArr[i] = even  
 }  
}  
console.log(numsArr);

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];

for (var i = 0; i <=10; i++) {

 if(i %2 == 0 )

 {

 numsArr[i] = "even";

 }

}

console.log(numsArr);

**Solution: Instead of numsArr[i]%2==0 , it should be i%2==0.**

6. Write a code to add all the numbers in the array

Output: 66

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];

for (var i = 0; i <=10; i++) {  
 var sum;  
 sum += numsArr[i]  
}  
console.log(sum);

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];

var sum=0;

for (var i = 0; i <=10; i++) {

 sum += parseInt(numsArr[i]);

}

console.log(sum);

**Solution: The variable sum should be declared outside the for loop, and while addition string should be converted to interger by using the ParseInt method.**

**7. Write a code to add the even numbers only  
Output: 30**

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];  
var sum=0;

for (var i = 0; i <10; i++) {  
 if(numsArr[i]%2==0);  
 sum += numsArr[i]  
}  
console.log(sum);

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];

var sum=0;

for (var i = 0; i <= 10; i++) {

 if(numsArr[i] %2 == 0){

    sum += numsArr[i]

 }

}

console.log(sum);

**Solution: The semicolon in the if condition should be removed.**

**8. Write a code to add the even numbers and subract the odd numbers  
Output: 94**

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];  
var sum=100;for (var i = 0; i <=10; i++) {  
 if(numsArr[i]%2!=0);  
 {  
 sum += numsArr[i]  
 }  
 else  
 {  
 sum -= numsArr[i]  
 }  
}  
console.log(sum);

var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];

var sum=100;

for (var i = 0; i <=10; i++) {

 if(numsArr[i]%2==0)

 {sum += numsArr[i];}

 else{

 sum -= numsArr[i];}

}

console.log(sum);

**Solution: Above snippet adds the odd number and subtracted the even hence change the logic to add the even number and subtract the odd number.**

**9. Write a code to print elements in the inner arrays  
Output: 1234567891011**

var numsArr = [[1, 2, 3, 4, 5],[ 6, 7, 8, 9, 10, 11]];  
var str\_all=0;for (var i = 0; i < numsArr.length; i++) {  
 var inner\_array = numsArr[i];  
 for(var j = 0 ; j < inner\_array.length;i++ )  
 str\_all +=inner\_array[j]  
}  
console.log(str\_all);

var numsArr = [[1, 2, 3, 4, 5],[ 6, 7, 8, 9, 10, 11]];

var str\_all=[];

for (var i = 0; i < numsArr.length; i++) {

 var inner\_array = numsArr[i];

 console.log(inner\_array.length);

 for(var j = 0 ; j < inner\_array.length; j++ )

     str\_all.push(inner\_array[j]);

}

console.log(str\_all.join(''));

**Solution: In the second for loop “i++” should be replaced to “j++” and logic of adding elements to the strall array is changed to display all the elements.**

**10. Write a code to replace the array value — If the index is even, replace it with ‘even’.**

**Output: [ [“even”, 2, “even”, 4, “even”], [6, “even”, 8, “even”, 10, …] ]**

var numsArr = [[1, 2, 3, 4, 5],[ 6, 7, 8, 9, 10, 11]];  
var str\_all=0;for (var i = 0; i < numsArr.length; i++) {  
 var inner\_array = numsArr[i];  
 for(var j = 0 ; j < inner\_array.length;i++ )  
 if(numsArr[i] %2 == 0 )  
 {  
 numsArr[i] = even  
 }  
}  
console.log(numsArr);

var numsArr = [[1, 2, 3, 4, 5],[ 6, 7, 8, 9, 10, 11]];

var str\_all=0;

for (var i = 0; i < numsArr.length; i++) {

 var inner\_array = numsArr[i];

    for(var j = 0 ; j < inner\_array.length;j++ ){

      if(j %2 == 0 )

      {

         inner\_array[j] = "even" ;

       }

    }

}

console.log(numsArr);

**Solution: In inner for loop the variable “i” should be replaced by “j” inorder to check the index value numsArray[i] should be replaced by “j” and element should be replaced by the string “even”.**