GUVI: Zen Class — Part 1:**Find the culprits and nail them — debugging javascript**

Once you are familiar with basic syntax you can reinforce your understanding by solving these simple snippets

**Find the culprit**

fix.html

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

**Solution:**

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

**Find the culprit and invoke the alert**

fix.html

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

scripts.js

alert(“I’m invoked!”);

**Solution:**

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

script.js

alert("I’m invoked");

**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

**Solution:**

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

script.js

alert("I'm JavaScript!");  
alert('Hello'); // this line is print hello  
alert(`World`);//this line is print world  
alert(3 +1+ 2); // this is print number 6 to add

**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"

**Solution:**

fix.html

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

script.js

fname = "Guvi";

lname = "geek"

admin = fname+lname;

alert( admin ); // "Guvi geek"

fix.html

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

script.js

let fname=10.5;   
fname = "Guvi";  
lname = "geek"let name = fname+lname;alert( 'hello ${name}' );

**Solution:**

fix.html

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

script.js

let fname=10.5;

fname = "Guvi";

lname = "geek"

let name1= fname+lname;

alert("hello"+name1); //change to + symbol

**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);

**Solution:**

fix.html

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

script.js

let a = parseInt(prompt("First number?")); //add parseint covert string to int

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

let c=a+b;

alert(c);

**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**”.**

fix.html

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

script.js

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

**Solution:**

fix.html

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

script.js

var a = 2 > 12;//Don't touch below this

if (a) {

  console.log("Code is Blasted")

}

else

{

  console.log("Diffused") //output is diffused

}

**How to get the success in console.**

fix.html

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

script.js

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" );  
}

**Solution:**

fix.html

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

script.js

let a = parseInt(prompt("Enter a number?"));//Don't modify any code below this

if (a) {

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

}

else

{

 console.log( "Success" ); //output is success

}

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

fix.html

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

script.js

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");  
}

**Solution:**

fix.html

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

script.js

let value = parseInt(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");

}

**Fix the code to welcome the Employee**

fix.html

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

script.js

let login = 'Employee';  
let message = (login == 'Employee') ? :  
 (login == 'Director') ? 'Greetings' :  
 (login == '') ? 'No login' :  
 '';console.log(message);

**Solution:**

fix.html

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

script.js

let login = 'Employee';

let message = (login == 'Employee') ? 'Welcome':(login == 'Director') ? 'Greetings' :(login == '') ? 'No login' :'';

console.log(message);//add to welcome the printout is welcome.

**Fix the code to welcome the boss**

fix.html

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

script.js

// 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);

**Solution:**

fix.html

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

script.js

let message;

let a=prompt("Enter the message");

if (a === null && 2 && undefined )

{

  message = "welcome boss";

}

else

{

  message = "Go away";

}

  console.log(message);

**Fix the code to welcome the boss**

fix.html

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

script.js

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

**Solution:**

fix.html

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

script.js

// You cant change the value of the msg

let message;

let result=prompt("enter the number");

let lock = 2;

if (result === null && lock && undefined )

{

  message = "Go away";

}

else

{

 message = "welcome";

}

  console.log(message);

**Change the code to print**

3

2

1

fix.html

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

script.js

//You can change only 2 characterslet i = 3;while (i) {  
 console.log( --i );  
}

**Solution:**

**Script.js**

let i = 4;

while (i>1) {

  console.log( --i );

}

**Change the code to print 1 to 10 in 4 lines**

fix.html

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

script.js

let num = 1  
console.log(num)  
num += 1  
console.log(num)  
num += 1  
console.log(num)  
num += 1  
console.log(num)  
num += 1  
console.log(num)  
num += 1  
console.log(num)  
num += 1  
console.log(num)  
num += 1  
console.log(num)  
num += 1  
console.log(num)  
num += 1  
console.log(num)

**Solution:**

(function() {

  var line = ''

  for (var i = 1; i <=10; i++) {

    line += i + ' '

    if (i % 3 === 0) {

      console.log(line)

      line = ''

    }

  }

})()

console.log(10);

output:

1 2 3

4 5 6

7 8 9

10

**Change the code to print even numbers**

fix.html

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

script.js

//You are allowed to modify only one character

for (let num = 2; num <= 20; num += 1) {  
 console.log(num)  
}

**Solution:**

for (let num = 2; num <= 20; num += 1) {

    if(num%2===0){

    console.log(num);

    }

  }

Output:

2 4 6 8 10 12 14 16 18 20

**Change the code to print all the gifts**

fix.html

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

script.js

let gifts = ["teddy bear", "drone", "doll"];for (let i = 0; i < 3; i++) {  
 console.log('Wrapped ${'gifts[i]'} and added a bow!');  
}

**Solution:**

let gifts = ["teddy bear", "drone", "doll"];

for (let i = 0; i < 3; i++) {

    console.log('Wrapped'  + gifts[i] +  'and added a bow!');

  }

Whats the msg printed and why?

var lemein = “0”;  
var lemeout = 0;  
var msg = “”;if (lemein) {  
 msg += “hi”;  
 }if (lemeout) {  
 msg += ‘Hello’;  
}console.log(msg);

**Solution:**

**Output:** hi

Lemein is double quated to equal 0 this is string.but lamout is not double quated to 0 this is number hi is an string that’s why displayed but hello is an number so not displayed.

# Part 3: Find the culprits and nail them — debugging javascript

**Fix the code to get the largest of three.**

Code:

aa = (f,s,t) => {  
 let f,s,t;  
 console.log(f,s,t);  
 if(f>s &&f>t){  
 console.log(f)}  
 else if(s>f && s>t){  
 console.log(s)}  
 else{  
 console.log(t)}  
}aa(1,2,3);

**solution:**

aa = (f,s,t) => {

    console.log(f,s,t);

    if(f>s && f>t){

    console.log(f);}

    else if(s>f && s>t){

    console.log(s);}

    else{

    console.log(t);}

   }

   aa(1,2,3);

**output:**

**1 2 3**

**3**

# GUVI: Zen Class — Part 2 : Find the culprits and nail them — debugging javascript loops

Write a code to print the numbers in the array

**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);

**Solution:**

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

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

    console.log(numsArr[i]);

   }

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

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);

**Solution;**

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

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

    //var result=reverse(numsArr[i]);

    console.log(numsArr[i]);

   }

Output:

11 10 9 8 7 6 5 4 3 2 1

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);

**Solution:**

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

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

    if(numsArr[i] %2 !== 0 )

    {

    console.log(numsArr[i],"even");

    }

   }

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);

**Solution:**

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

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

    if(numsArr[i] %2 === 0 )

    {

    console.log("even",numsArr[i],);

    }

   }

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);

**Solution:**

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

var sum = 0;

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

    sum += numsArr[i];

}

console.log(sum);

output:

66

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);

**Solution:**

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

var sum=0;

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

 if(numsArr[i]%2!==0){

 sum += numsArr[i];

}

}

console.log(sum);

output:

36

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);

**Solution:**

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

var sum=100;

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

 if(numsArr[i]%2===0)

 {

 sum += numsArr[i];

 }

 else

 {

 sum -= numsArr[i];

 }

}

console.log(sum);

output:

94

GUVI: Zen Class — Part 3: Find the culprits and nail them — debugging javascript

**Fix the code to get the largest of three.**

Code:

aa = (f,s,t) => {  
 let f,s,t;  
 console.log(f,s,t);  
 if(f>s &&f>t){  
 console.log(f)}  
 else if(s>f && s>t){  
 console.log(s)}  
 else{  
 console.log(t)}  
}aa(1,2,3);

**Solution:**

aa = (f,s,t) => {

    console.log(f,s,t);

    if(f>s && f>t){

    console.log(f)}

    else if(s>f && s>t){

    console.log(s)}

    else{

    console.log(t)}

   }

   aa(1,2,3);

output:

1 2 3

3

**Fix the code to Sum of the digits present in the number**

Code:

let n = 123;console.log(add(n));function add(n)  
{  
let sum = 10;  
for(var i=0;i<n.length;i++){  
 sum+=n[i]  
 }  
 return sum;  
}

**Solution:**

var add=function(n){

    var result=10;

    for(i=0;i<n.length;i++)

    {

            result+=n[i]

    }

    return result;

 }

console.log(add([1,2,3]));

output: 16

**Fix the code to Sum of all numbers using IIFE function**

Code:

const arr = [9,8,5,6,4,3,2,1];(function() {  
 let sum = 0;  
 for (var i = 0; i <= arr.length; i++);{  
 sum += arr[i];  
 }  
 console.log(sum);  
 return sum;  
})();

**Solution:**

var sum =(arr)=>{

    var res=0;

    for(i=0;i<arr.length;i++)

    {

            res+=arr[i];

    }

    return res;

 }

console.log(sum([9,8,5,6,4,3,2,1]));

output:

36