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

**(a) Find the culprit**

fix.html

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

Answer: quotes should be same.

**Ans:** <!DOCTYPE html>

<html>

<body>

 <script>

 alert( "I'm JavaScript!");

 </script>

 Whats the error in this ?

</body>

</html>

# ****(b)**** **Find the culprit and invoke the alert**

<!DOCTYPE html>

<html>

<body>

 <script>

 alert( "I’m invoked!");

 </script>

</body>

</html>

# (c) **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

# ANS: In JS automatic semicolon insertion works in background and put semicolon where it is necessary when you run your code. As semi-colon was not found after ‘wor it treats other line as a part of it, ASI is responsible for this also.

# (d) **Fix the below to alert**Guvi geek

# Ans: correction done below:

let admin=9, fname=10.5;

fname = "Guvi";

lname = "geek"

admin = fname+" "+lname;

alert( admin ); // "Guvi geek"

# A picture containing rectangle Description automatically generated

# (e) **Fix the below to alert**hello Guvi geek

let fname=10.5;

fname = "Guvi";

lname = "geek"

let name = fname+" "+lname;

alert( 'hello'+ " "+name );

# A picture containing graphical user interface Description automatically generated

# (f) **Fix the below to alert sum of two numbers**

# **Ans:**

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

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

alert(a + b);

# A picture containing shape Description automatically generated

# 1+1=2

**(g)** **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**”**

# var a = "2" > "12";

# //Don't touch below this

# if (a) {

# console.log("Code is Blasted")

# }

# else

# {console.log("Diffused")

# }

# Ans: When comparing two strings, "2" will be greater than "12", because (alphabetically) 1 is less than 2.

# To get diffused, just change > to <.

var a = "2" < "12";

//Don't touch below this

if (a) {

  console.log("Code is Blasted")

}

else

{

  console.log("Diffused")

}

# 

# (h) **How to get the success in console.**

let a = 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" );

}

**Ans:Don’t give a number just press enter when prompt comes.**

# **(i)How to get the correct score in console.**

**Ans:** 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");

}

# 

# (j) **Fix the code to welcome the Employee**

# **Ans**

let login = 'Employee';

let message = (login == 'Employee') ? 'Welcome':

  (login == 'Director') ? 'Greetings' :

  (login == '') ? 'No login' :

  '';

console.log(message);

**(k) Fix the code to welcome the boss**

# Ans

// You cant change the value of the msg

let message;

if (null || 2 || undefined )

{

  message = "welcome boss";

}

else

{

  message = "Go away";

}

  console.log(message);

# (l) **Fix the code to welcome the boss**

**Ans:** let message;

let lock;

//Dont change any code below this

if (null || lock || undefined )

{

  message = "Go away";

}

else

{

 message = "welcome";

}

  console.log(message);

# (m) **Fix the code to welcome the boss**

**Ans:** let message;

let lock ;

//Dont change any code below this

if (lock && " " || undefined )

{

  message = "Go away";

}

else

{

 message = "welcome";

}

console.log(message)

**(n) Change the code to print**

3

2

1

**Ans:** //You can change only 2 characters

let i = 3;

while (i) {

  console.log( i-- );

}

# (o) **Change the code to print 1 to 10 in 4 lines**

**Ans.** let num = 1

console.log(num+" "+ ++num + " "+ ++num);

console.log(++num+" "+ ++num + " "+ ++num);

console.log(++num+" "+ ++num + " "+ ++num);

console.log(++num);

# **Graphical user interface Description automatically generated**

**(p) Change the code to print even numbers**

# **Ans.**

//You are allowed to modify only one character

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

    console.log(num)

  }

# **Changed num+=1 to num+=2.**

# **Output:**

# **Table Description automatically generated**

# **(q)** **Change the code to print all the gifts**

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

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

  console.log(`Wrapped ${gifts[i]} and added a bow!`);

}

# **Ouput:**

# **Graphical user interface, text, application Description automatically generated**

# **(r)** **Fix the code to disarm the bomb.**

# **Ans.**

let countdown = 100;

while (countdown > 0) {

  countdown--;

  if(countdown == -1)

  {

   console.log("bomb triggered");

  }

}

# **(s)** Whats the msg printed and why?

# Ans. It has printed – hi; because value of if(lemein )is true and msg has only ‘’ which will be changed to hi and hi will be printed.

# (t) Whats the msg printed and why? Guess you answer before running it.

# Ans. It will print hi. Same as above.

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

# (a) **Output**: 1234567891011

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

# var new\_string = "";

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

# new\_string += numsArr[i]

# }

# console.log(new\_string);

**(b)** 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 = 0; i < 11; i++) {

# 

# if(i<10){

# new\_string += numsArr[i] + ',' ;

# }

# else

# new\_string += numsArr[i]

# }

# console.log(new\_string);

**(c)** 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 numsArr = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];

# var new\_string = "";

# for (var i = 10; i >= 0; i-- ) {

# if(i>0)

# new\_string += numsArr[i]+" "

# else

# new\_string += numsArr[i]

# }

# console.log(new\_string);

**(d)** 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] = "even"

# }

# }

# console.log(numsArr);

**(e)** 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(i %2 == 0 )

{

numsArr[i] = "even"

}

}

console.log(numsArr);

(f) 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];

var sum=0;

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

sum += numsArr[i]

}

console.log(sum);

(g) 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);

(h) 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);

(i) Write a code to print inner arrays  
**Output**:

Array(5) [ 1, 2, 3, 4, 5 ]  
Array(6) [ 6, 7, 8, 9, 10, 11 ]

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]);

}

(j) 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="";

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

var inner\_array = numsArr[i];

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

str\_all +=inner\_array[j]

}

console.log(str\_all);

(k) 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;j++ ){

if(j % 2 == 0 )

{

inner\_array[j]= "even";

}

}

}console.log(numsArr);

(l) Write a code to print elements in the inner arrays in reverse  
**Output**: 11 10 9 8 7 6 5 4 3 2 1

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

var str\_all="";

for (var i = numsArr.length-1; i>=0; i--) {

var inner\_array = numsArr[i];

for(var j = inner\_array.length-1; j>=0 ;j-- )

str\_all +=inner\_array[j]+" "

}

console.log(str\_all);

(m) Write a code to add elements in the inner arrays based on odd or even values  
**Output**:  
36  
30

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

var sum\_odd=0;

var sum\_even=0;

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

var inner\_array = numsArr[i];

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

if(inner\_array[j]%2!==0)

{

sum\_odd += inner\_array[j];

}

else

{

sum\_even += inner\_array[j];

}

}

}

console.log(sum\_odd);

console.log(sum\_even);

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

3.(a) **Fix the code to get the largest of three**

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);

(b) **Fix the code to Sum of the digits present in the number**

let n = 123;

var myArr = String(n).split("").map((num)=>{

return Number(num)

})

console.log(add(myArr));

function add(n)

{

let sum = 0;

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

sum+=n[i]

}

return sum;

}

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

**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;**

**})();**

**(d) Fix the code to gen Title caps.**

**var arr = ["guvi", "geek", "zen", "fullstack"];**

**var ano = function(arro) {**

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

**console.log(arro[i][0].toUpperCase() + arro[i].substr(1));**

**}**

**}**

**ano(arr);**

**(e)** **Fix the code to return the Prime numbers**

**const newArray=[1,3,2,5,10];**

**const myPrime=newArray.filter(num=>{**

**for(let i=2;i<=num;i++){**

**if(num%i===0)**

**{**

**return false;**

**}**

**return true;**

**}**

**});**

**console.log(myPrime);**

**(f)** **Fix the code to sum the number in that array**

**const num = [10, 20, 30, 40,50,60,70,80,90,100]**

**var sum = (a, b) =>**

**a + b;**

**sum = num.reduce(sum);**

**console.log(sum);**

**(g)** **Fix the code to rotate an array by k times and return rotated array using IIFE function**

**var arr = [1, 2, 3, 6, 8, 6, 1, 9, 10, 12, 13];**

**var k = 3;**

**k = arr.length % k;**

**(function() {**

**//arr = {};**

**out = arr.slice(k + 1, arr.length);**

**var count = out.length;**

**for (var i = 0; i < k + 1; i++) {**

**out[count] = arr[i];**

**count += 1;**

**}**

**console.log(out);})();**

**(h)** **Fix the code to gen Title caps.**

**var arr = ["guvi", "geek", "zen", "fullstack"];**

**(function() {**

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

**console.log(arr[i][0].toUpperCase() + arr[i].substr(1));**

**}**

**})();**

**(i)print all odd numbers in an array using IIFE function**

**var arr = [1, 2, 3, 5, 7, 79, 7, 2, 6, 9, 4];**

**(function() {**

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

**if (arr[i] % 2 !== 0) {**

**console.log(arr[i]);**

**}}**

**})();**

**(j)** **Fix the code to reverse**

**(function(str){**

**str1 = str.split("").reverse().join("");**

**console.log(str1);**

**})("abcd")**

**(k)** **Fix the code to remove duplicates**

**res = function(arr){**

**newArr = [];**

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

**if(newArr.indexOf(arr[i]) == -1) {**

**newArr.push(arr[i]);**

**} }**

**console.log(newArr)**

**}**

**res(["guvi","geek","guvi","duplicate","geeK"]);**

**(l) Fix the code to give the below output:**

**Expected Output:**

**[  
{firstName: “Vasanth”, lastName: “Raja”, age: 24, role: “JSWizard”},  
{firstName: “Sri”, lastName: “Devi”, age: 28, role: “Coder”}  
]**

var array =[[["firstname","vasanth"],["lastname","Raja"],["age",24],["role","JSWizard"]],[["firstname","Sri"],["lastname","Devi"],["age",28],["role", "Coder"]]];

var final=[]

var new\_object={};

while(array.length!=0)

{

var outer\_remove = array.shift();

while(outer\_remove.length!=0)

{

var inner\_remove = outer\_remove.shift();

var key = String(inner\_remove[0]);

var value =String(inner\_remove[1]);

new\_object[key] =value;

}

final.push(new\_object);

}

console.log(final);

**(m)** Sum of odd numbers in an array

var as=[12,34,5,6,2,56,6,2,1];

var sum=0;

var s=as.reduce(function(a,c){

if(c%2!==0)

{

sum= a+c;

}

return sum;

});

console.log(s);

(n) **Fix the code to give the below output:**

Swap the odd and even digits

aa = data=>{

var a=data;

var l='';

for(i=0;i<a.length-1;i++){

var s=a[i+1]

var b=a[i]

l+=s

l+=b

i=i+1

}

if((a.length%2)!=0){

l+=a[a.length-1]

}

console.log(l);

}

aa("1234");