# 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>

**Ans.** Error is in this line - alert( “I’m JavaScript!’);

**Solution** : alert( ”I’m JavaScript!”);

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**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**: <script src=”scripts.js”></script>

Filename of .js file mismatched

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**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 above code script.js will run when we open explain.html in browser. After opening html file in browser we will get 4 alert box one after other. In first alert box I’m Javascript! Is written. It is showing string written within double quotes. In second alert box string Hello will show because it is written in Single Quotes.

Third alert box will show everything written in single quotes including white space and Wor and ld will show in different lines.

In fourth alert box we will get sum of 3+1+2 which is 6. Javascript will not read any white space if it is not written in single or double quotes or within ``. So we will get sum of given three integers.

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**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** : Update last line with below,

admin = `${fname} ${lname)`;alert( admin );

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**Fix the below to alert**hello 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** : In script.js change last line with below code

lname = "geek";

let name = fname+” ”+lname;alert( `hello ${name}` );

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**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** : In script.js change last line with below code

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

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**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** : Same as previous one

In script.js change last line with below code

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

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**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** : In first line change greater than sign with less than

var a = "2" < "12";

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**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** : In script.js change first line with below line

let a = false;

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**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** : Change first line of script.js with line given below

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

— — — — — — — — — — — — — — — — — — — — — — — — — — — — — — -

**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** :

script.js

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

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**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** : change if condition with if (messsage)

— — — — — — — — — — — — — — — — — — — — — — — — — — — — — — -

**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** : let lock = false

— — — — — — — — — — — — — — — — — — — — — — — — — — — — — — -

**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 thisif (lock && " " || undefined )  
{  
 message = "Go away";  
}  
else  
{  
 message = "welcome";  
}  
console.log(message);

**Solution** : let lock = false;

— — — — — — — — — — — — — — — — — — — — — — — — — — — — — — -

**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** : change console.log( --i ); to 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** :

let num = 11

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

console.log(i)

}

— — — — — — — — — — — — — — — — — — — — — — — — — — — — — — -

**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 += 2) {  
 console.log(num)  
}

— — — — — — — — — — — — — — — — — — — — — — — — — — — — — — -

**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** :

script.js

let gifts = ["teddy bear", "drone", "doll"];for (let i = 0; i < 3; i++) {

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

}

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**Fix the code to disarm the bomb.**

fix.html

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

script.js

let countdown = 100;while (countdown > 0) {  
 countdown--;  
 if(countdown == 0)  
 {  
 console.log("bomb triggered");  
 }  
}

**Solution** : change value of countdown to 0 in first line

Let countdown=0

— — — — — — — — — — — — — — — — — — — — — — — — — — — — — — -

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** : The msg printed will be ( hi )

First if condition will run normally because “0“ is consider as string ,

But in second if condition 0 is a numeric value and 0 is false in javascript, so block of code inside second if will not run

Whats the msg printed and why? Guess you answer before running it.

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

**Solution** :

Again Same solution for same question

The msg printed will be ( hi )

First if condition will run normally because “0“ is consider as string ,

But in second if condition 0 is a numeric value and 0 is false in javascript, so block of code inside second if will not run

# 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];var new\_string = "";

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

 new\_string += numsArr[i]

}console.log(new\_string);

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);

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

var new\_string = numsArr.join(",")

console.log(new\_string);

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 new\_string = "";

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

 new\_string += i + " "

}

new\_string.trim()

console.log(new\_string);

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 <=10; i++) {

    if(numsArr[i] %2 == 0 )

    {

    numsArr[i] = "Even"

    }

   }

   console.log(numsArr);

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 <=10; i++) {

if(i %2 == 0 )

{

numsArr[i] = "even"

}

}

console.log(numsArr);

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

    sum += numsArr[i]

   }

   console.log(sum);

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

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 <=10; i++) {

 if(numsArr[i]%2==0)

 {

 sum += numsArr[i]

 }

 else

 {

 sum -= numsArr[i]

 }

}

console.log(sum);

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])  
}

**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])

}

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);

**Solution** :

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.push(inner\_array[j])

}

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

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);

**Solution** :

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(str\_all %2 == 0 )

      {

         numsArr[i][j] = "even"

       }

       str\_all++

    }

}

console.log(numsArr);

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=0;for (var i = 0; i < numsArr.length; i++) {  
 var inner\_array = numsArr[i];  
 for(var j = inner\_array.length; j < 0 ;j-- )  
 str\_all +=inner\_array[j]  
}  
console.log(str\_all);

**Solution** :

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.push(inner\_array[j])

}

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

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(numsArr[i]%2!=0)  
 {  
 sum\_odd += numsArr[i]  
 }  
 else  
 {  
 sum\_even += numsArr[i]  
 }  
}  
}  
console.log(sum\_odd);  
console.log(sum\_even);

**Solution** :

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

**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) => {

    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);

— — — — — — — — — — — — — — — — — — — — — — — — —  
**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** :

let n = 123;console.log(add(n));function add(n)

{

let sum = 0;

n=n.toString()

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

 sum+=parseInt(n[i])

 }

 return sum;

}

— — — — — — — — — — — — — — — — — — — — — — — — —

**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** : const arr = [9,8,5,6,4,3,2,1];

((arr)=>{

    let sum = 0;

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

    sum += arr[i];

    }

    console.log(sum);

   })(arr);

— — — — — — — — — — — — — — — — — — — — — — — — —

**Fix the code to gen Title caps.**

Code:

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();

**Solution**:

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);

— — — — — — — — — — — — — — — — — — — — — — — — —

**Fix the code to return the Prime numbers**

Code:

const newArray=[1,3,2,5,10];  
const myPrime=newArray.filter(num=>{  
 for(let i=2;i<=num;i++){  
 if(num%i===0)  
 {  
 return true;  
 }  
 }  
 return num===1;  
});  
console.log(myPrime);

**Solution** :

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;

 }

 else{

    return true

 }

 }

});

console.log(myPrime);

— — — — — — — — — — — — — — — — — — — — — — — — —

**Fix the code to sum the number in that array**

Code:

const num = [10, 20, 30, 40,50,60,70,80,90,100]   
const sum = (a, b) =>  
 a + b  
const sum = num.reduce(sum)  
console.log(sum);

**Solution** :

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

const sum = (a, b) => a + b

console.log(num.reduce(sum));

— — — — — — — — — — — — — — — — — — — — — — — — —

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

Code:

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);})();

**Solution** :

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);})(arr);

— — — — — — — — — — — — — — — — — — — — — — — — —

**Fix the code to gen Title caps.**

Code:

var arr = [“guvi”, “geek”, “zen”, “fullstack”];(function() {  
 for (var i = 0; i <= arr.length; i++) {  
 console.log(arr[0][i].toUpperCase() + arr[i].substr(1));  
 }  
})();

**Solution** :

var arr = ["guvi", "geek", "zen", "fullstack"];(function(arr) {

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

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

    }

})(arr);

— — — — — — — — — — — — — — — — — — — — — — — — —

**print all odd numbers in an array using IIFE function**

Code:

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]);  
 }}  
})();

**Solution** :

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]);

    }}

   })();

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**Fix the code to reverse.**

Code:

(function(str){  
 str1 = str.split(“ “).reverse().join(“”);  
 console.log(str1);   
})(“abcd”)

**Solution** :

(function(str){

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

    console.log(str1);

   })("abcd")

— — — — — — — — — — — — — — — — — — — — — — — — —

**Fix the code to remove duplicates.**

Code:

var res = function(arr){  
 for(var i=0; i < arr.length; i++){  
 newArr = [];  
 if(newArr.indexOf(arr[i]) == -1) {  
 newArr.push(arr[i]);  
 } }  
 console.log(newArr)  
}res([“guvi”,”geek”,”guvi”,”duplicate”,”geeK”])

**Solution** :

var 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)

   }(["guvi","geek","guvi","duplicate","geek"])

— — — — — — — — — — — — — — — — — — — — — — — — —

**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”}  
]

Code:

var array =[[[“firstname”,”vasanth”],[“lastname”,”Raje”],[“age”,24],[“role”,”JSWizard”]],[[“firstname”,”Sri”],[“lastname”,”Devi”],[“age”,28],[“role”, “Coder”]]];  
var final=[]  
while(array.length!=0)  
{  
 var outer\_remove = array.shift();  
   
 while(outer\_remove.length!=0)  
 {  
 var inner\_remove = outer\_remove.shift()  
 var key = inner\_remove[0]  
 var value =inner\_remove[1]  
 new\_object[key]=value  
 }  
 final.push(new\_object)}

**Solution** :

var array =[[["firstname","vasant"],["lastname","Raje"],["age",24],["role","JSWizard"]],[["firstname","Sri"],["lastname","Devi"],["age",28],["role", "coder"]]];

var final=[]

while(array.length!=0)

{

 var outer\_remove = array.shift();

 let new\_object = []

 while(outer\_remove.length!=0)

 {

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

 var key = inner\_remove[0]

 var value =inner\_remove[1]

 new\_object[key]=value

 }

 final.push(new\_object)}

 console.log(final)

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**Fix the code to give the below output:**

Sum of odd numbers in an array

Code:

var as=[12,34,5,6,2,56,6,2,1];  
var s=as.reduce(function(a,c){  
 if(c%2!=0)  
 {  
 return a+c;  
 }  
 return a;});  
console.log(s);

**Solution** :

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

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

 if(c%2!=0)

 {

 return a+c;

 }

 return a;},0);

console.log(s);

— — — — — — — — — — — — — — — — — — — — — — — — —

**Fix the code to give the below output:**

Swap the odd and even digits

Code:

aa = data=>{  
 var a=data;  
for(i=0;i<a.length-1;i++){  
 var l=’’;  
 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”);

**Solution** :

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

   }

   console.log(l);

   }

   aa('1234');

**OOPS TASK**

1. **Class - Movie**

The class Movie is stated below. An instance of class Movie represents a film. This class has the following three properties:

* title, which is a String representing the title of the movie
* studio, which is a String representing the studio that made the movie
* rating, which is a String representing the rating of the movie (i.e. PG­13, R, etc)

a) Write a constructor for the class Movie, which takes a String representing the title of the movie, a String representing the studio, and a String representing the rating as its arguments, and sets the respective class properties to these values.

b) The constructor for the class Movie will set the class property rating to "PG" as default when no rating is provided.

c) Write a method getPG, which takes an array of base type Movie as its argument, and returns a new array of only those movies in the input array with a rating of "PG". You may assume the input array is full of Movie instances. The returned array need not be full.

d) Write a piece of code that creates an instance of the class Movie with the title “Casino Royale”, the studio “Eon Productions”, and the rating “PG­13”

**Solution :**

class Movie{

    constructor(title,studio,rating = "PG"){

        this.title = title

        this.studio = studio

        this.rating = (rating == null ? "PG" : rating)

    }

    getpg(arr){

        let output=[]

        for(let key of arr){

            if(key.rating=="PG"){

                output.push(key)

            }

        }

        return output

    }

}

let m1 = new Movie("Iron Man","Marvel Studio",null)

let m2 = new Movie("Casino Royale","EON productions","PG13")

let m3 = new Movie("Batman","DC movies")

console.log(m1.getpg([m1,m2,m3]))

1. **Class – CIRCLE**

Convert the UML diagram to Typescript class. - use number for double

Graphical user interface, application

Description automatically generated

**Solution :**

class Circle{

    constructor(radius=1, color="black"){

        this.radius = (radius == null ? 1 : radius)

        this.color = (color == null ? "black" : color)

    }

    getRadius(){

        return this.radius

    }

    getColor(){

        return this.color

    }

    setRadius(radius){

        this.radius=radius

    }

    setColor(color){

        this.color=color

    }

    toString(){

        return `Radius: ${this.radius} Color: ${this.color}`;

    }

    getArea(){

        return (Math.PI \* Math.pow(this.radius,2))

    }

    getCircumference(){

        return (Math.PI \* this.radius \* 2)

    }

}

let c1 = new Circle()

let c2 = new Circle(2)

let c3 = new Circle(6,"blue")

console.log(c1.toString())

c1.setRadius(10)

console.log("c1 area : ",c1.getArea())

console.log("c3 Circumference",c3.getCircumference())

c3.setColor("red")

console.log("c3 color",c3.getColor())

console.log("C2 radius",c2.getRadius())

1. **Class – Person**

Write a “person” class to hold all the details.

class Person{

    constructor(name,gender,age){

        this.name = name

        this.gender = gender

        this.age = age

    }

}

let p1 = new Person("person1","male",25)

console.log(p1.name)

console.log(p1.age)

console.log(p1.gender)

1. **Class – Uber**

class Uber {

    constructor(time=1,distance=1){

        this.time=time;

        this.distance=distance;

        this.BaseFare = 15

        this.CostPerKM = 2

        this.CostPerMinute = 1

        this.BookingFee = 5

    }

    setBaseFare(fare){

        this.BaseFare=fare

    }

    setCostPerKM(cost){

        this.CostPerKM=cost

    }

    setCostPerMinute(cost){

        this.CostPerMinute=cost

    }

    setBoookingFee(bookingfee){

        this.BookingFee=bookingfee

    }

    getBaseDetails(){

        console.log(`Base Fare : ${this.BaseFare}, Cost Per KiloMeter : ${this.CostPerKM}, Cost Per Minute : ${this.CostPerMinute}, Booking Fee : ${this.BookingFee}`)

    }

    totalPrice(time=this.time , distance=this.distance){

        console.log(`the total price is ${(this.BaseFare)+(this.BookingFee)+((this.CostPerMinute)\*time)+((this.CostPerKM)\*distance)} only`);

    }

}

let vehicle = new Uber()

vehicle.getBaseDetails()

vehicle.totalPrice(15,10)

vehicle.totalPrice(10,10)