# **Part 1: Find the culprits and nail them — debugging javascript**

### 1.Find the culprit

### **Fixed code**

<!DOCTYPE html>

<html>

<body>

<script>

alert( "I’m JavaScript!"); //fixed

</script>

Whats the error in this ?

</body>

</html>

2.Find the culprit and invoke the alert

**Fixed code**

//fix.html

<!DOCTYPE html>

<html>

<body>

<script src="script.js"></script>

</body>

</html>

//scripts.js

alert("I’m invoked!"); ///fixed

3.Explain the below how it works

HTML:

<!DOCTYPE html>

<html>

<body>

<script src="script.js"></script>

</body>

</html>

Working: HTML file is provided a inclusion of script file through script tag and through src attribute the name of file to be executed by browser is provided.

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

Working: JavaScript does not strictly require semicolons.

As the statement to be shown as alert is given in multiple lines , the alert pops up with the message in same format

4.Fix the below to alert : Guvi geek

//script.js

let admin=9, fname=10.5;

fname = "Guvi";

lname = "geek"

admin = fname+" "+lname;//fixed code- appending space in between

alert( admin ); // "Guvi geek"

5.Fix the below to alert hello Guvi geek:

//script.js

let fname=10.5;

fname = "Guvi";

lname = "geek"

let name = fname+" "+lname; //fixed code- appending space in between

alert( `hello ${name}` ); // using template literal

6.Fix the below to alert sum of two numbers

//script.js

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

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

if(a+b!==undefined)// fixed code- alert will wait till a and b is given

alert(a + b);

7.If you run the below script you will get “Code is Blasted”

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

As string “2” is greater than string “12” , variable a will hold value true, hence we get “Code is Blasted” in the console. Converting “2” and “12” to integers will get “Diffused” in the console.

Script.js

var a = parseInt("2") > parseInt("12");// converting string to integer

//Don't touch below this

if (a) {

console.log("Code is Blasted")

}

else

{

console.log("Diffused")

}

8.How to get success in the console.

By typecasting string input from user to integer, we will get “success” when input is zero.

let a = parseInt(prompt("Enter a number?"));//typecasting string input to integer

//Don't modify any code below this

if (a) {

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

}

else

{

console.log( "Success" );

}

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

By typecasting string input from user to integer, we will get correct score in the console

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

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");

}

10.Fix the code to welcome the Employee

When login is employee, welcome message is added

let login = 'Employee';

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

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

(login == '') ? 'No login' :

'';

console.log(message);

11.Fix the code to welcome the boss

// You cant change the value of the msg

let message;

if((message===null )||(message===2)||(message===undefined))

{

message = "welcome boss";

}

else

{

message = "Go away";

}

console.log(message);

12.Fix the code to welcome the boss

let message;

let lock = 0;

//Dont change any code below this

if (null || lock || undefined )

{

message = "Go away";

}

else

{

message = "welcome";

}

console.log(message);

13.Fix the code to welcome the boss

let message;

let lock = 0;

//Dont change any code below this

if (lock && " " || undefined )

{

message = "Go away";

}

else

{

message = "welcome";

}

console.log(message);

14.Change the code to print

3

2

1

//You can change only 2 characters

let i = 3;

while (i) {

console.log( i-- );

}

15.Change the code to print 1 to 10 in 4 lines

for(let num=1;num<=10;num++)

console.log(num);

16.Change the code to print even numbers

//You are allowed to modify only one character

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

console.log(num)

}

17.Change the code to print all the gifts

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

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

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

}

18.Fix the code to disarm the bomb

let countdown = 100;

while (countdown > 0) {

if(countdown == 0)

{

console.log("bomb triggered");

}

countdown--;

}

19.Whats the msg printed and why?

The message printed is “hi”. As lemein holds a string of zero (“0”), if(lemein) will evaluate to true , hence the message “hi” is appended to the variable(msg). Whereas, lemeout holds value zero (0), hence if(lemeout) evaluates to false and “Hello” is not appended to the variable (msg) to be printed.

//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);

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

The message printed is “hi”. As lemein holds a string of zero (“0”), if(lemein) will evaluate to true , hence the message “hi” is appended to the variable(msg). Whereas, lemeout holds value zero (0), hence if(lemeout) evaluates to false and “Hello” is not appended to the variable (msg) to be printed.

I guessed as: hi

var lemein = "0";

var lemeout = 0;

var msg = "";

if (lemein) {

msg += "hi";

}

if (lemeout) {

msg += "Hello";

}

console.log(msg);