

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

<https://medium.com/@reach2arunprakash/guvi-zen-class-find-the-culprits-and-nail-them-9ee6c67c44fb>

Only solutions are below. For question refer the above link to practice.

Question 1: Find the culprit

```
<!DOCTYPE html>
<html>
<body>
  <script>
    alert( "I'm JavaScript!"); //Double quotes missing inside string
  </script>
  Whats the error in this ?
</body>
</html> -->
```

Question #2: Find the culprit and invoke the alert

```
<!-- <!DOCTYPE html>
<html>
<body>
  <script src="script.js"></script> //double quotes missing
```

```
    alert("I'm invoked!"); //double quotes is missing

</body>
</html>-->
```

//Question #3 Explain the below how it works

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

Explanation : We can have as many statements in the code as we want. Another statement can be separated with a semicolon.

```
alert("I'm JavaScript!");
```

```
alert('Hello') // this line is not having semicolon
```

A semicolon may be omitted in most cases when a line break exists. JavaScript interprets the line break as an “implicit” semicolon. Also called as automatic semicolon insertion.

```
alert(`Wor
ld`)
alert(3 +
1
+ 2); //this is multiple line code and its working
```

JavaScript does not insert semicolons here. It is intuitively obvious that if the line ends with a plus "+", then it is an “incomplete expression”, no semicolon required. And in this case that works as intended.

Question#4 Fix the below to alert Guvi geek:

```
<!DOCTYPE html>
<html>
<body>
```

```
<script src="script.js"></script>
</body>
</html>

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

Question#5 Fix the below to alert hello Guvi geek:

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

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

Question#6 Fix the below to alert sum of two numbers

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

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

alert (a+b);
```

Question#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”.

Solution : Here 2 is not greater than 12 that why its diffused here. Change the condition and in string it will compare “2” vs “12” i.e 2 vs 1 then 2.

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

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

Question#8 How to get the success in console.

Solution here as follows:

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

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" );
}
```

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

Solution here:

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

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");
}
```

Question#10 Fix the code to welcome the Employee

Solution Here...

```

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

let login = 'Employee';
let message = (login === 'Employee') ? 'Welcome the':
  (login == 'Director') ? 'Greetings' :
  (login == '') ? 'No login' :
  '';
console.log(message,`${login}`);

```

Question#11 : Fix the code to welcome the boss

```

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

let message;
if (null || 2 || undefined )
{
  message = "welcome boss";
}
else
{
  message = "Go away";
}
console.log(message);

```

Question#12 : Fix the code to welcome the boss

```

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

```

```
// You cant change the value of the msg
```

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

Question#13 : Fix the code to welcome the boss

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

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

Question#14 Change the code to print

3

2

1

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

let i = 3;
while (i) {
  console.log( i-- );
}
```

Question#15 Change the code to print 1 to 10 in 4 lines

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

for (i=1;i<=10;i++) {
  console.log(i);
}
```

Question#16 Change the code to print even numbers

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

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


Question#17 : Change the code to print all the gifts

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

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

Question#18 : Fix the code to disarm the bomb.

Solution here..Change the condition and count ++

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

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

Question#19 : Whats the msg printed and why?

```
<!DOCTYPE html>
<html>
```

```
<body>
  <script src="script.js"></script>
</body>
</html>
```

```
var lemein = "0";
var lemeout = 0;
var msg = "";
if (lemein) {
  msg += "hi";
}
if (lemeout) {
  msg += 'Hello';
}
console.log(msg);
```

The output is "hi" and it is because the string 0 is passed inside if statement becomes true and the number 0 is false.

Question#19 : Whats the msg printed and why? Guess you answer before running it.

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

```
var lemein = "0";
var lemeout = 0;
var msg = "";
if (lemein) {
  msg += "hi";
}
if (lemeout) {
  msg += 'Hello';
}
```

```
console.log(msg);
```

The output is "hi" and var msg="" holds a string

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

Fix the code to get the largest of three.

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

```
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);
```