

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

1. 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:** Condition for loop is incorrect and highlight the incorrect statement. It should start like below:

```
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);
```

2. 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:** Condition for loop is incorrect and highlight the incorrect statement. It should start like below:

```
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);
```

3. 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:** Condition for loop is incorrect and highlight the incorrect statement. It should start like below:

```
var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];  
var new_string = "";  
for (var i = (numsArr.length-1); i >= 0; i -- ) {  
    new_string += numsArr[i] + "  
}  
console.log(new_string);
```

4. 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:** Condition for loop is incorrect and highlight the incorrect statement. It should start like below:

```
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 ){
            numsArr[i] = "even";
        }
    }
    console.log(numsArr);

```

5. 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:** Condition for loop is incorrect and highlight the incorrect statement. It should start like below:

```

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 ){
        numsArr[i] = "even";
    }
}
console.log(numsArr);

```

6. 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:** Condition for loop is incorrect and highlight the incorrect statement. It should start like below:

```
var numsArr = [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11];
var sum = 0;
for (var i = 0; i < numsArr.length; i++) {
    sum += numsArr[i];
}
console.log(sum);
```

7. 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:** Condition for loop is incorrect and highlight the incorrect statement. It should start like below:

```
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);
```

8. Write a code to add the even numbers and subtract 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:** Condition for loop is incorrect and highlight the incorrect statement. It should start like below:

```

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);

```

## 9. 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:** Condition for loop is incorrect and highlight the incorrect statement. It should start like below:

```

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])
}

```

## 10. 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:** Condition for loop is incorrect and highlight the incorrect statement. It should start like below:

```
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);
```

11. 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:** Condition for loop is incorrect and highlight the incorrect statement. It should start like below:

```

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++ ){
        if(inner_array[j] %2 == 0 )
        {
            str_all += inner_array[j] + ","
        }else {
            str_all += "even" + ","
        }
    }
}
console.log(str_all);

```

12. 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 = 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:** Condition for loop is incorrect and highlight the incorrect statement. It should start like below:

```

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);

```

13. 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:** Condition for loop is incorrect and highlight the incorrect statement. It should start like below:

```
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);
```