Web Development

Assignment

JS Basics

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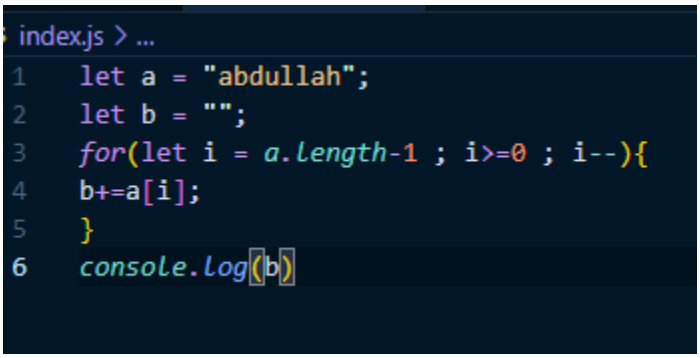
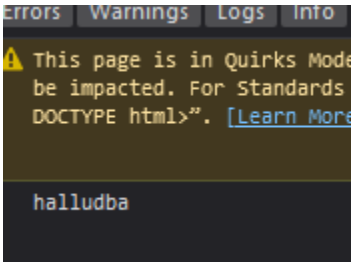
Q1. Reverse a string without using the built-in reverse() method.

Code:



Output:



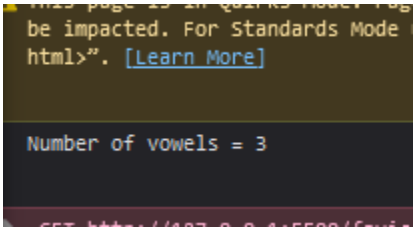
Q2. Count the number of vowels in a given string.

Code:

index.js > ...

```
let a = "abdullah";
let v = 0;
let c = 0;
for(let i = 0 ; i<a.length ; i++){

    if (a[i] == 'a' || a[i] == 'e' || a[i] == 'i' || a[i] == 'o' || a[i] == 'u') {
        v += 1;
    }
else{
c+=1;
}

}

console.log("Number of vowels = "+v);
```

Output:

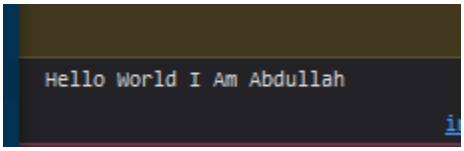


Q3. Convert the first letter of each word in a sentence to uppercase.

Code:

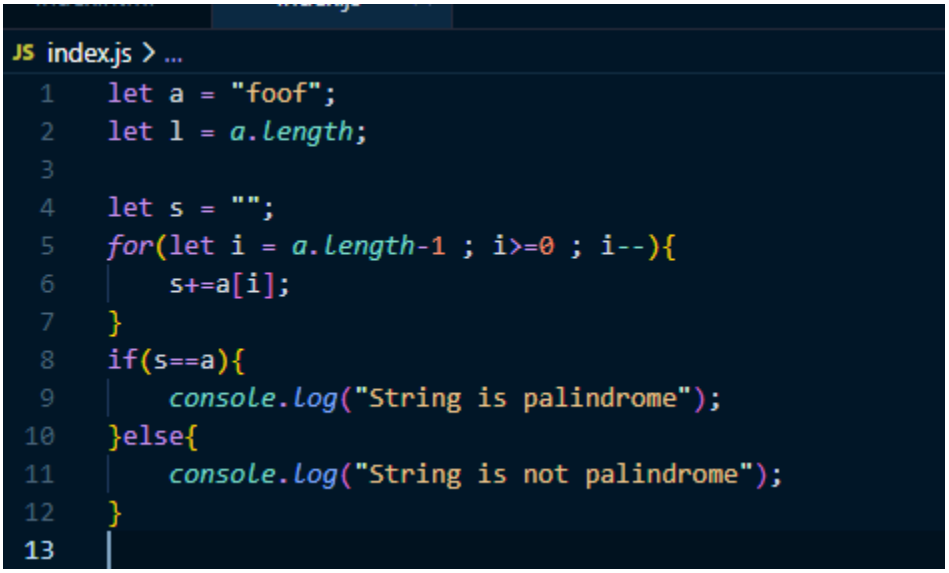
```
let sen = "hello world i am abdullah";

let a = sen.split(" ");
let b = "";
for(let  i = 0 ; i<a.length ;i++){

    a[i] = a[i][0].toUpperCase()+a[i].slice(1);
    b+=a[i] + " ";

}
console.log(b);
```

Output:

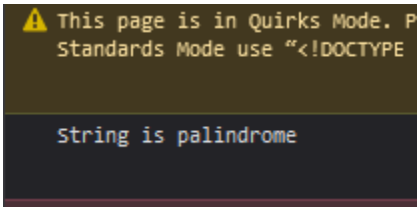


Q4. Check if a string is a palindrome.

Code:

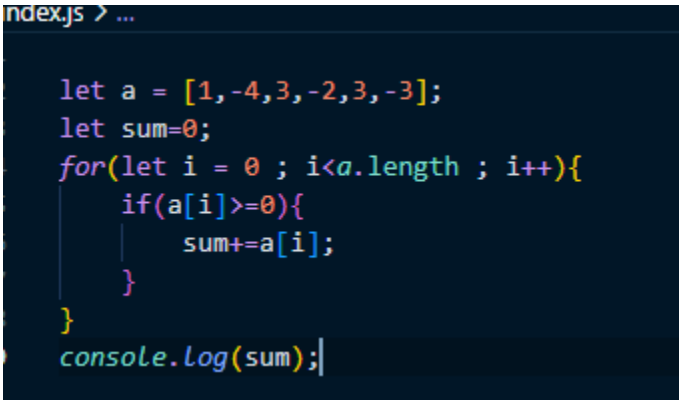


Output:

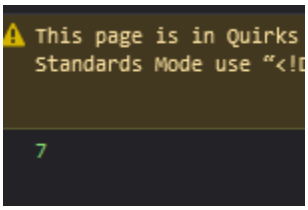


Q5. Find the sum of all positive numbers in an array.

Code:



Output:



Q6. Find the index of the first occurrence of a specific element in an array.

Code:

```
let a = "hello";

let index;

for(let i = 0 ; i<a.length;i++){
    if(a[i]=="l"){
        index = i;
        break;
    }
}
console.log("First occurence of l in the string is at "+index+" index.")
```

Output:

```
First occurence of e in the string is at 2 index.
```

Q7. Remove all duplicates from an array without built-in methods.

Code:

```
let arr = ["hello" ,"abdullah","hello","ziauddin"];

for(let i = 0 ; i<arr.length ; i++){
    for(let j = 0 ; j<arr.length ; j++){
        if(arr[i]==arr[j]){
            arr.splice(j, 1);

        }
    }
}
console.log(arr);
```

Output:

```
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Standards Mode use “<!DOCTYPE html>”. [Learn More]

▸ Array [ "abdullah", "ziauddin" ]
```

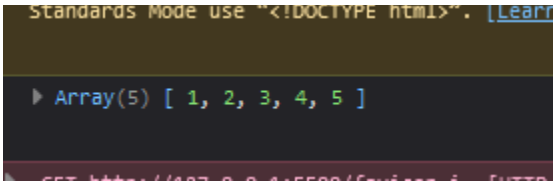
Q8. Sort the array in ascending and descending without built-in methods.

Code:

```
let a = [2,3,1,4,5];

for(let i = 0 ; i<a.length;i++){
    for(let j=0;j<a.length;j++){
        if(a[j]>[j+1]){
            let temp = a[j];
            a[j] = a[j+1];
            a[j+1] = temp;
        }
    }
}
console.log(a);
```

Output:



Q9. Print all even numbers between 1 and 20 using a while loop.

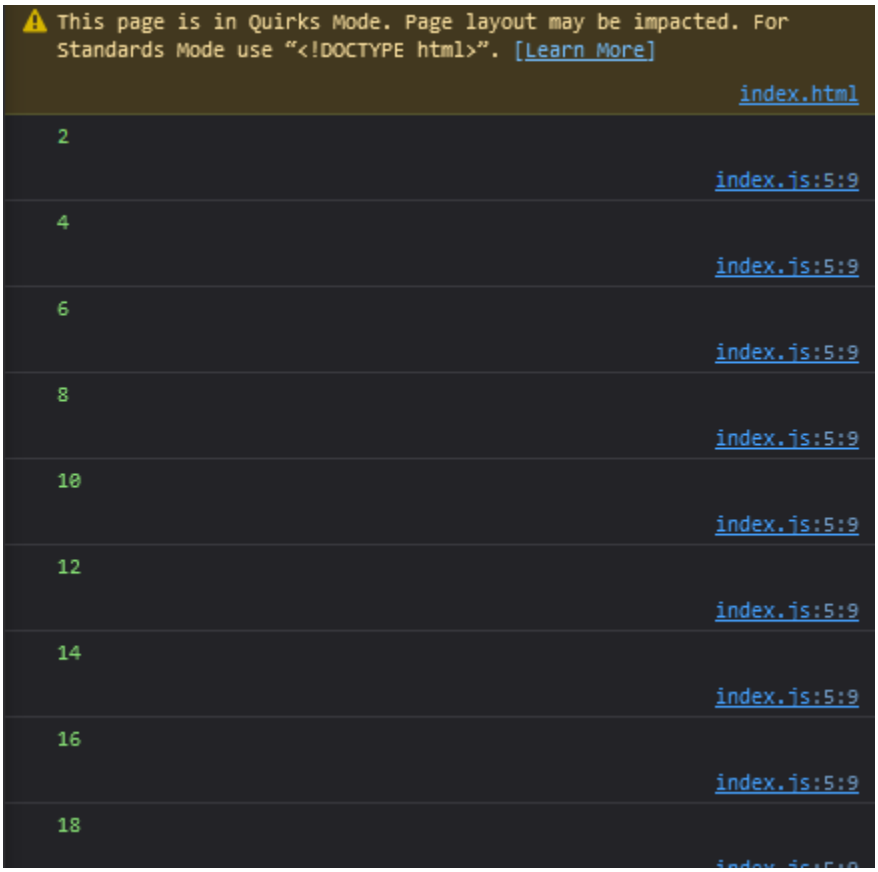
Code:

```
ndex.js > ...
let  i = 2;

while (i!=20) {

console.log(i);
    i = i+2;
}
```

Output:

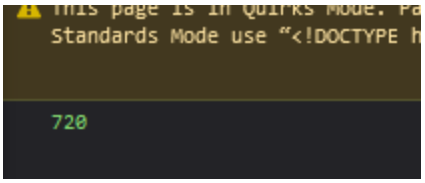


Q10. Calculate the factorial of a number using a do-while loop.

Code:

```
let n = 6;
let i = n;
let fac = 1;
do{
fac = fac*i;
i--;
}while(i!=1)
console.log(fac);
```

Output:



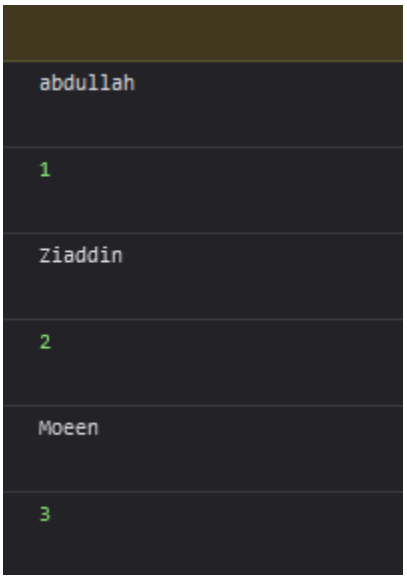
Q11. Iterate through the properties of an object using a for-in loop

Code:

```
let a = {
    "abdullah":1, "Ziaddin":2,"Moeen":3
}

for(i in a){
    console.log(i);
    console.log(a[i]);
}
```

Output:



Q12. Loop through an array using a for-of loop and double each element.

Code:

```
dex.js > ...
let a = [2,4,6,8,10];
for (i of a){
console.log(i);
}
```

Output:

```
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Standards Mode use "<!DOCTYPE html>". [Learn M
2
4
6
8
10
```

Q13. Check if a number is even or odd and return a corresponding message.

Code:

```
idex.js > ...
let n = 2;
if (n%2==0) {
    console.log(n + " is even.");
}else{
    console.log(n+" is odd.");
}
```

Output:

```
Standards Mode use "<!DO
2 is even.
```

Q14. Find the maximum of three numbers using nested ternary operators.

Code:

```
ex.js > ...
let a = 10;
let b = 20;
let c = 15;

let max = a > b ? (a > c ? a : c) : (b > c ? b : c);

console.log("The maximum of the three numbers is:", max);
```

Output:

```
The maximum of the three numbers is: 20
```

Q15. Determine if a year is a leap year or not.

Code:

```
ex.js > ...
let year = 2024;

if (year % 4 === 0 && (year % 100 !== 0 || year % 400 === 0)) {
    console.log(year + " is a leap year.");
} else {
    console.log(year + " is not a leap year.");
}
```

Output:

```
2024 is a leap year.
```