

## Assignment 4

Roll No – 71 Batch - T14

### Aim:

- A. WAP in JS to study conditional Statements, Loops and Functions
- B. Write a Javascript code to change the background color of the web page automatically after every 5 second

### Code:

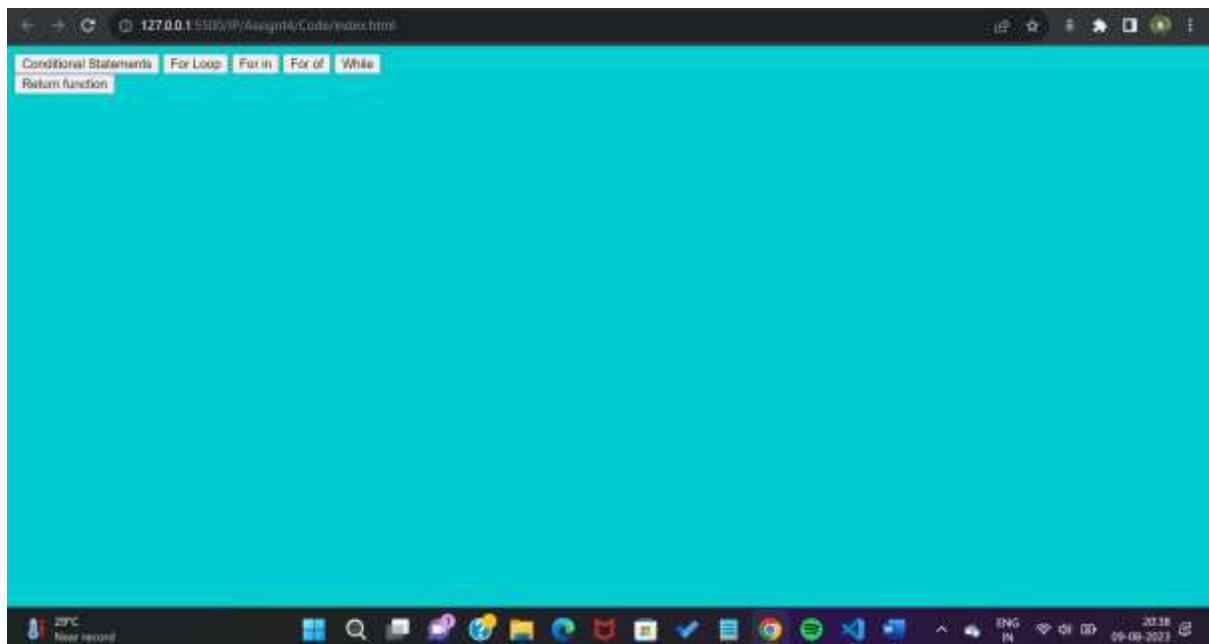
For changing background color:

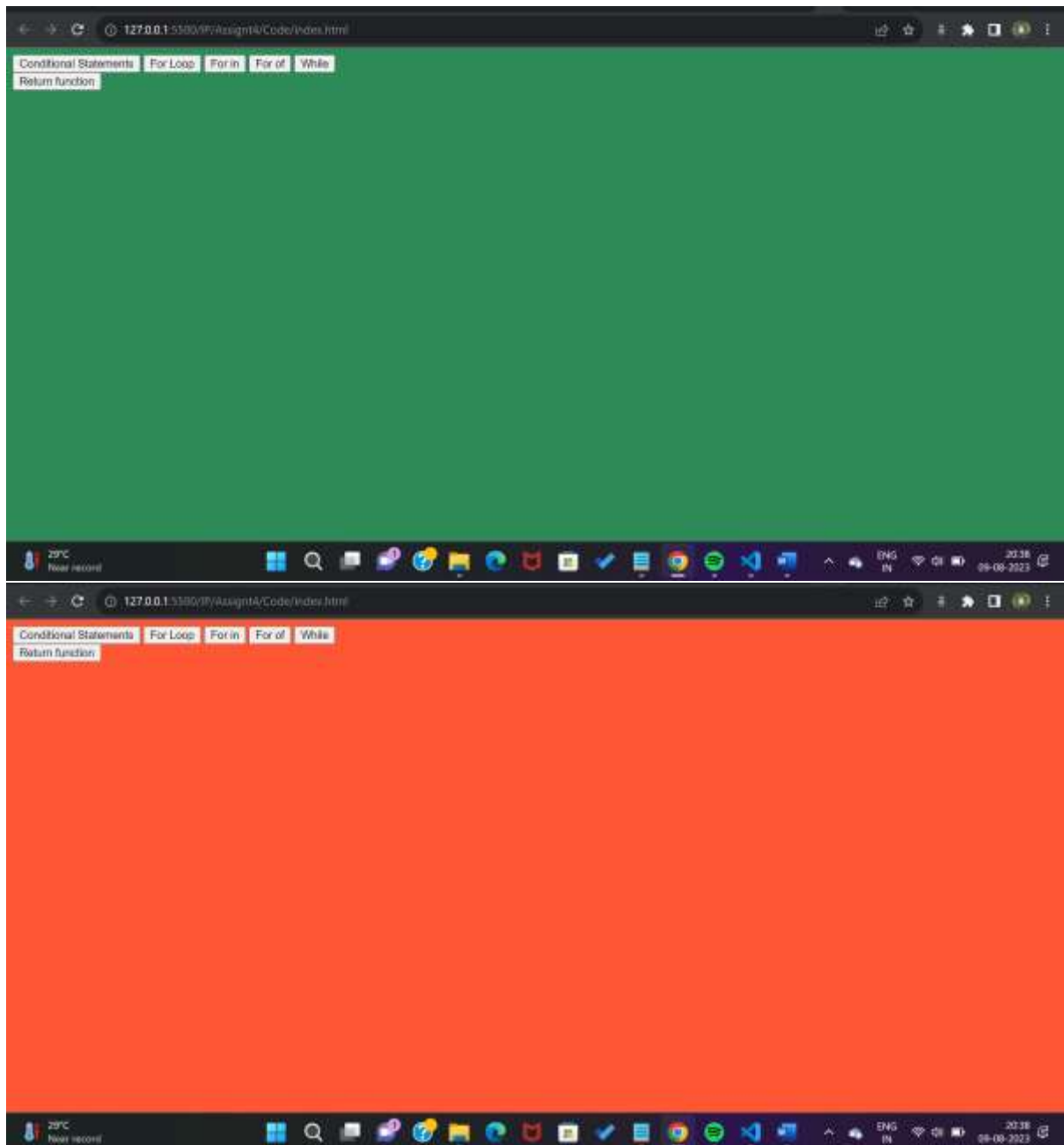
```
var colors = ["#FF5733", "#8A2BE2", "#2E8B57", "#FF1493", "#00CED1"];

function changeBackgroundColor(){
    console.log("Called");
    var rNum = Math.floor(Math.random() * 5);
    document.body.style.backgroundColor = colors[rNum];
}

setInterval(changeBackgroundColor,5000);
```

### Output:





### Conditional Statements , Loops, Functions:

```
studs = ["dars","zxc","fga","me"];

// Conditional Statement
var currentHour = new Date().getHours();
if(currentHour<12) {
    console.log("Good morning!");
} else if(currentHour < 18) {
    console.log("Good afternoon!");
}
```

```

} else{
    console.log("Good evening!");
}

// Ternary Operator
var userAge = prompt("Please enter your age:");
userAge >= 18 ? console.log("You are eligible to vote!") : console.log("You
are not eligible to vote.");

//Loops

document.getElementById("forof").addEventListener("click",()=>{
    console.log("Using for_of loop");
    for(let students of studs){
        console.log(students);
    }
});

document.getElementById("forin").addEventListener("click",()=>{
    console.log("Using for_in loop");
    for(var i in studs){
        console.log(studs[i]);
    }
});

document.getElementById("simplefor").addEventListener("click",()=>{
    console.log("Using simple for loop");
    for(let i = 0 ; i<studs.length ; i++){
        console.log(studs[i]);
    }
});

document.getElementById("while").addEventListener("click",()=>{
    console.log("While loop");
    var i = 4;
    while(i>0){
        console.log(i);
        i--;
    }
});

//functions
// Return function
function bitwiseAnd(x,y){
    return x&y;
}

```

```

console.log(bitwiseAnd(3,2));

//Default parameter function

function default_para(name = "Darshil" , rollNo= 71){
    console.log("Hey " + name + ", your roll no is "+rollNo);
}

default_para();
default_para("ZXC",8);

//Res function
function res_function(...paras){
    console.log("Total parameters passed = "+ paras.length);
    var sum = 0;
    for(let objs in paras){
        sum += paras[objs];
    }
    console.log("Sum = "+sum);
}

res_function(4,6,7,3,2);
res_function(6,5);

//Anonymous funciton
var calculateSquare = function(num) {
    return num * num;
};

var number = 5;
var square = calculateSquare(number);
console.log("The square of " + number + " is: " + square);

//Arrow functions - all types
// no arg

let arrow1 = ()=>{
    console.log("Called arrow function with no arguements");
}
arrow1();

// arrow function with arguments and multiline arrow function
let arrow2 = (n1,n2)=>{

```

```

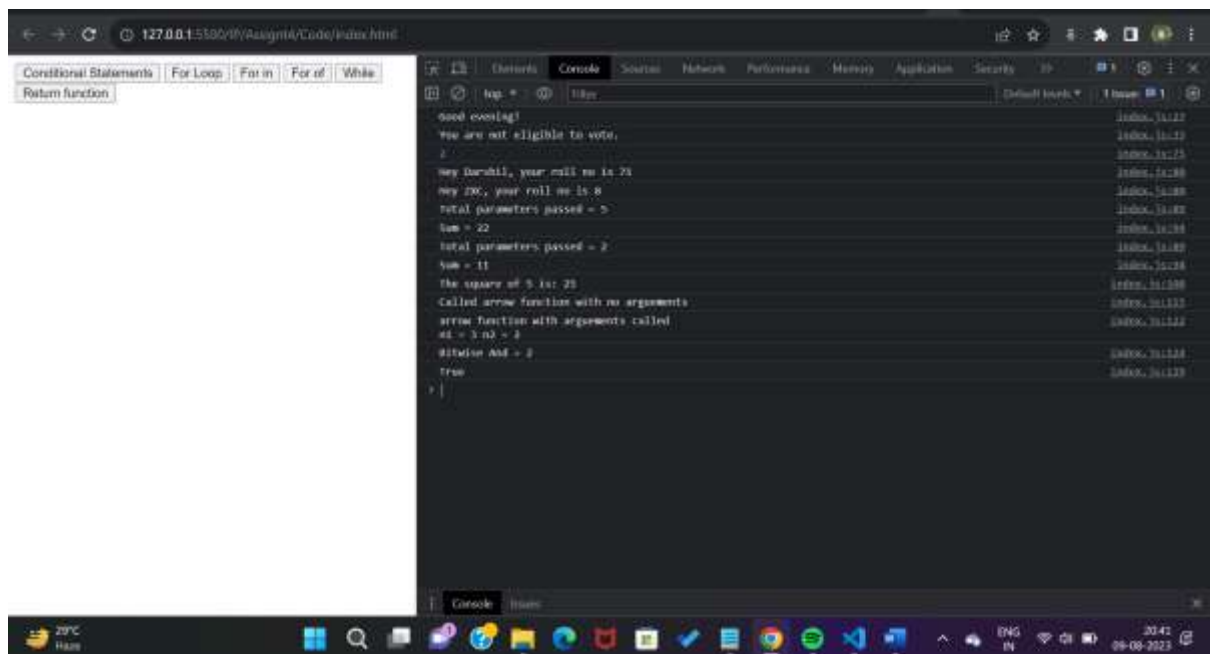
    console.log("arrow function with arguements called\nn1 = "+n1+ " n2 = "+n2);
    let ans = n1&n2;
    console.log("Bitwise And = "+ans);
}
arrow2(3,2);

// arrow function as an expression
var exp_arr = (4<5)? () => {console.log("True");} : () =>{console.log("False");}

exp_arr();

```

Output:



Includes output for all functions and conditional statements

Using simple for loop	<a href="#">index.js:53</a>
dars	<a href="#">index.js:55</a>
zxc	<a href="#">index.js:55</a>
fga	<a href="#">index.js:55</a>
me	<a href="#">index.js:55</a>
Using for_in loop	<a href="#">index.js:46</a>
dars	<a href="#">index.js:48</a>
zxc	<a href="#">index.js:48</a>
fga	<a href="#">index.js:48</a>
me	<a href="#">index.js:48</a>
Using for_of loop	<a href="#">index.js:39</a>
dars	<a href="#">index.js:41</a>
zxc	<a href="#">index.js:41</a>
fga	<a href="#">index.js:41</a>
me	<a href="#">index.js:41</a>
While loop	<a href="#">index.js:100</a>
4	<a href="#">index.js:163</a>
3	<a href="#">index.js:163</a>
2	<a href="#">index.js:163</a>
1	<a href="#">index.js:163</a>