Web Lab Assignment

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Sec:- A

Java Script Control Flow Excercises.

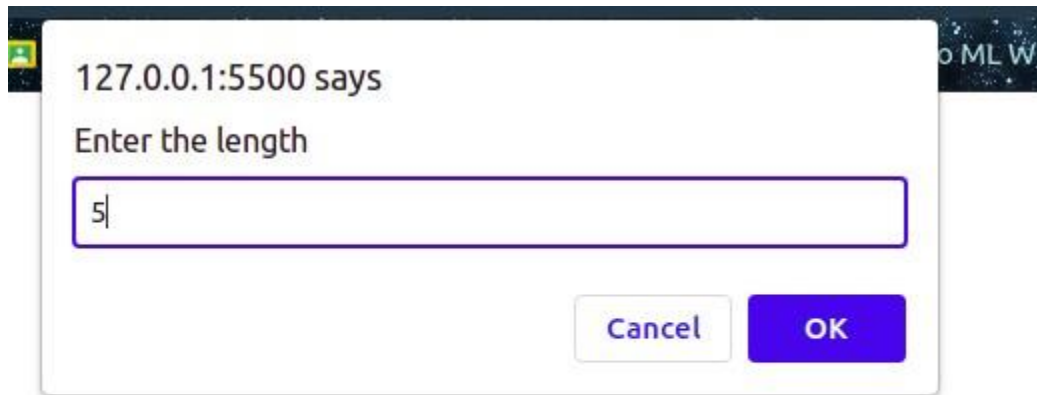**1. Write a JavaScript program to construct the following pattern, using a for loop.**
```
*
*  *
*  *  *
*  *  *  *
*  *  *  *  *
```

Code:-

Javascript file:-

```javascript
let x=prompt("Enter the length ");

let n=parseInt(x);

for(let i=1;i<=x;i++){

   for(let j=i;j>0;j--){

       document.write("*  ");

}

   document.write("<br>");

}
```

Output:-


```
127.0.0.1:5500 says

Enter the length

5

                                    Cancel        OK
```



```
*
* *
* * *
* * * *
* * * * *
```

2. Write a JavaScript for loop that will iterate from 0 to 15. For each iteration, it will check if the current number is odd or even and display a message to the screen.

Code:-

```javascript
for(let i=0;i<=15;i++){
    if(i%2==0){
        document.write("Even number");
        document.write("<br>");
    }
    else{
        document.write("Odd number");
        document.write("<br>");


    }
}
```
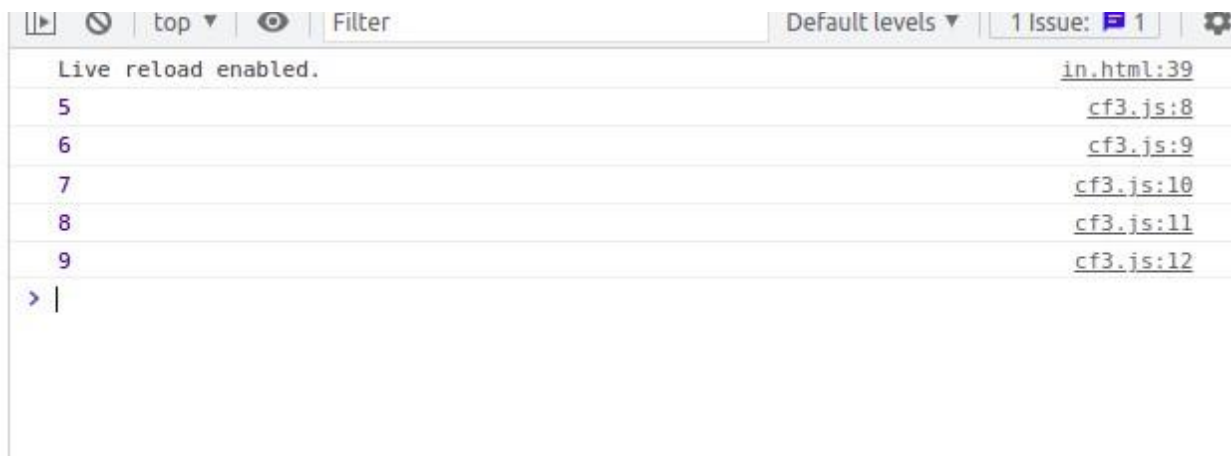
Output:-

Even number
Odd number
Even number
Odd number
Even number
Odd number
Even number
Odd number
Even number
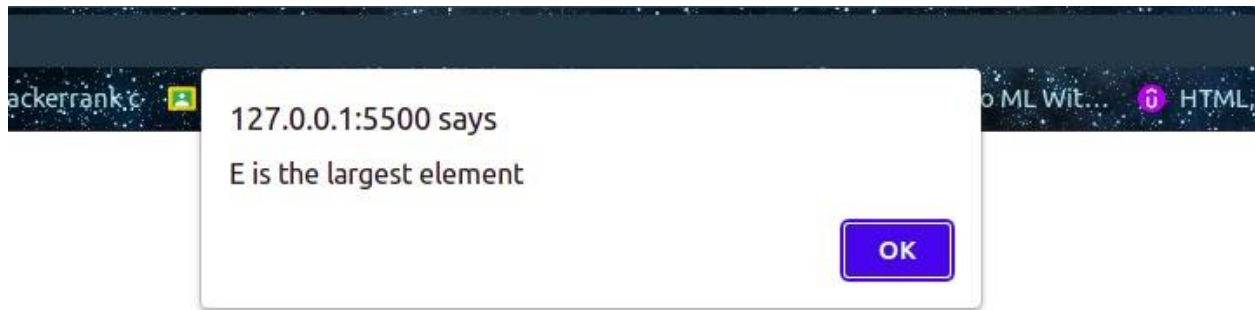Odd number
Even number
Odd number
Even number
Odd number
Even number
Odd number

3. Write a JavaScript conditional statement to find the largest of five numbers. Display an alert box to show the result.

Code:-

```javascript
const func = (arr) => {
    let x = arr[0];
    for (let i = 0; i < arr.length; i++)
    {
        if (x < arr[i])
            x = arr[i];
    }
    alert(`${x} is the Largest Number`);
};
let arr = [];
for (let i = 0; i < 5; i++)
{
    arr.push(parseInt(prompt(`Enter num ${i + 1}`)));
}
console.log(arr);
func(arr);
```
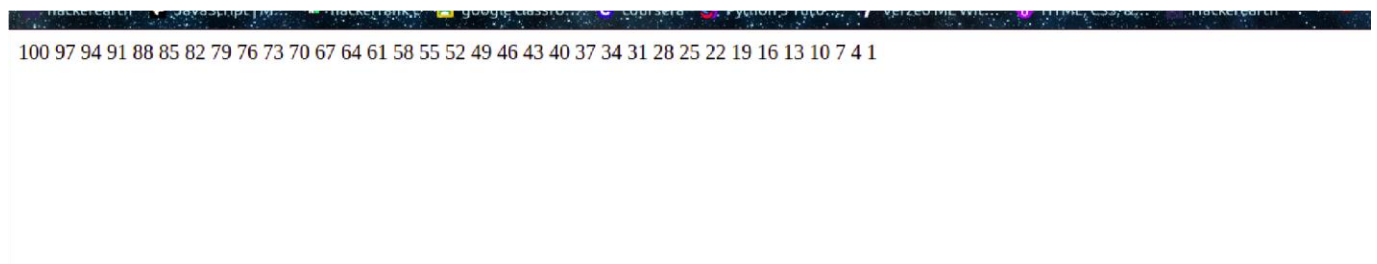
Output:-

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5		cf3.js:8
6		cf3.js:9
7		cf3.js:10
8		cf3.js:11
9		cf3.js:12
>			

4. Write a program to print numbers backwards from 100 to 1 by skipping 2 numbers i.e., 100 97 94 91 88 85 82 79. . . 22 19 16 13 10 7 4 1
Code:-

```
const func = () => {
    for (let i = 100; i >= 1; i -= 3) document.write(i + " ");
};
func();
```

Output:-

100 97 94 91 88 85 82 79 76 73 70 67 64 61 58 55 52 49 46 43 40 37 34 31 28 25 22 19 16 13 10 7 4 1

5. Write a program to print all numbers backwards from 100 to 0 i.e., 100 99 98 97 96 . . . 4 3 2 1 0.

Code:-

```
const func = () => {
    for (let i = 100; i >= 1; i -= 1)
    {
        document.write(i + " ");
    }
};
func();
```

Output:-

100 99 98 97 96 95 94 93 92 91 90 89 88 87 86 85 84 83 82 81 80 79 78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

6.Write a program to print alternate numbers starting from 1 to 99 i.e., 1 3 5 7 9 11 13 . . . 95 97 99

Code:-

Js File

```
const func = () => {
    for (let i = 1; i <= 100; i+=2)
    {
        document.write(i + " ");
    }
};
func();
```

Output:-

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45 47 49 51 53 55 57 59 61 63 65 67 69 71 73 75 77 79 81 83 85 87 89 91 93 95 97 99

7. Write a program to print alternate numbers starting from 0 to 100 i.e. 0 2 4 6 8 10 12 . . .

96 98 100

Js File:-

```javascript
const func = () => {
    for (let i = 0; i <= 100; i+=2)
    {
        document.write(i + " ");
    }
};
func();
```
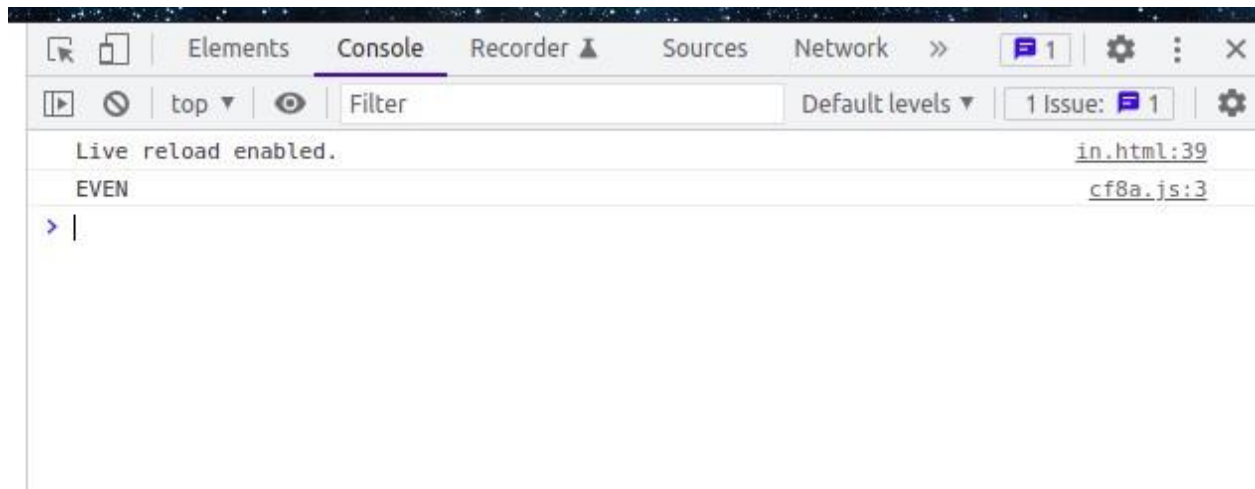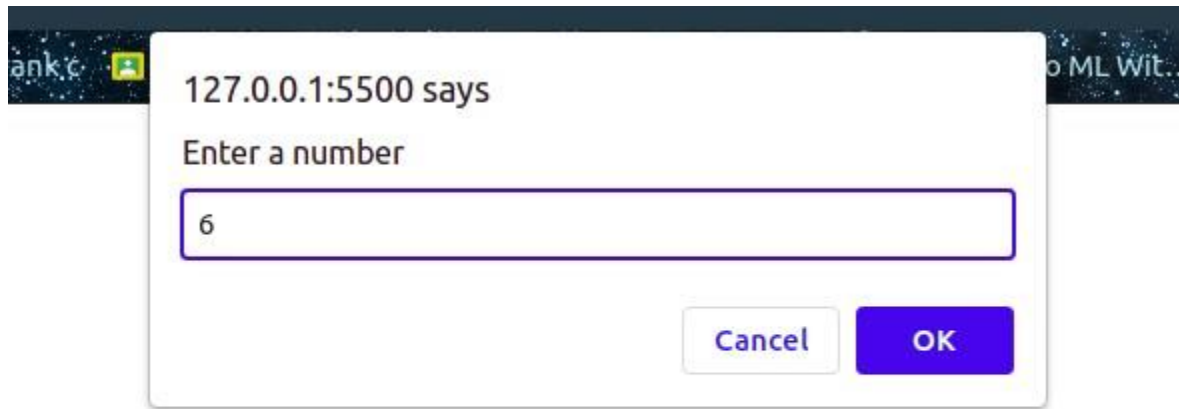
Output:-

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

8a. Write a program to accept a number N and print whether the number is EVEN or ODD.

Code:-

```javascript
const func = () => {
    let n = parseInt(prompt("Enter a number"));
    if (n % 2 == 0) console.log("EVEN");
    else console.log("ODD");
};
func();
```

Output:-

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Live reload enabled.   in.html:39
EVEN   cf8a.js:3
> |

8b. Write a program to accept two numbers and print whether their sum is EVEN or ODD.

Code:-

```
const func = () => {
    let n = parseInt(prompt("Enter a number1"));
    let m = parseInt(prompt("Enter a number2"));
    if ((n + m) % 2 == 0) console.log("EVEN");
    else console.log("ODD");
};
func();
```
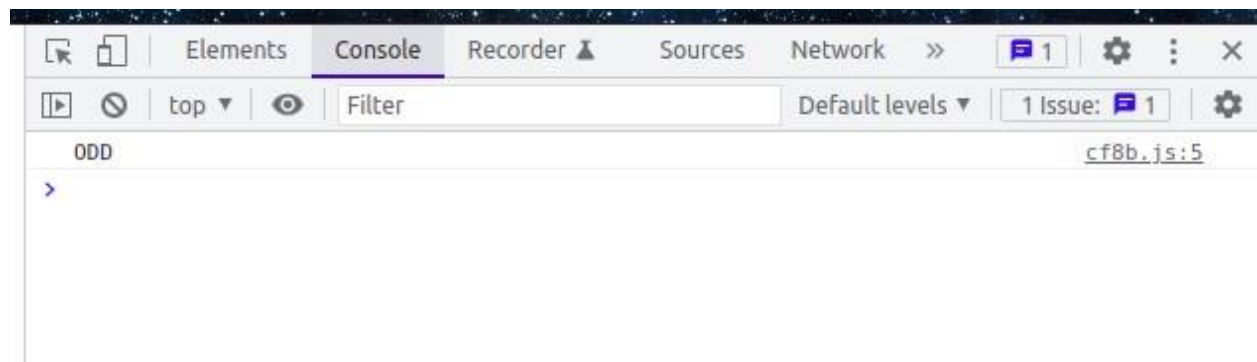
Output:-

127.0.0.1:5500 says

Enter a number1

2

Cancel OK

127.0.0.1:5500 says

Enter a number2

5

Cancel OK

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ODD cf8b.js:5

9.Based on the ColorCode entered display corresponding color, below are the code and colors given

R-> Red
B-> Blue
G-> Green
O-> Orange
Y-> Yellow W-
> White
others-> Invalid Input.

Code:-

```javascript
let func = () => {

  let n = prompt("Enter a character");

  switch (n) {

    case "R":

      console.log("Red");

      break;

    case "B":

      console.log("Blue");

      break;

    case "G":
      console.log("Green");

      break;

    case "O":

      console.log("Orange");
```

```
        break;

    case "Y":

        console.log("Yellow");

        break;

    case "W":

        console.log("White");

        break;

    default:

        console.log("Invalid Input");

        break;

    }

};

func();
```
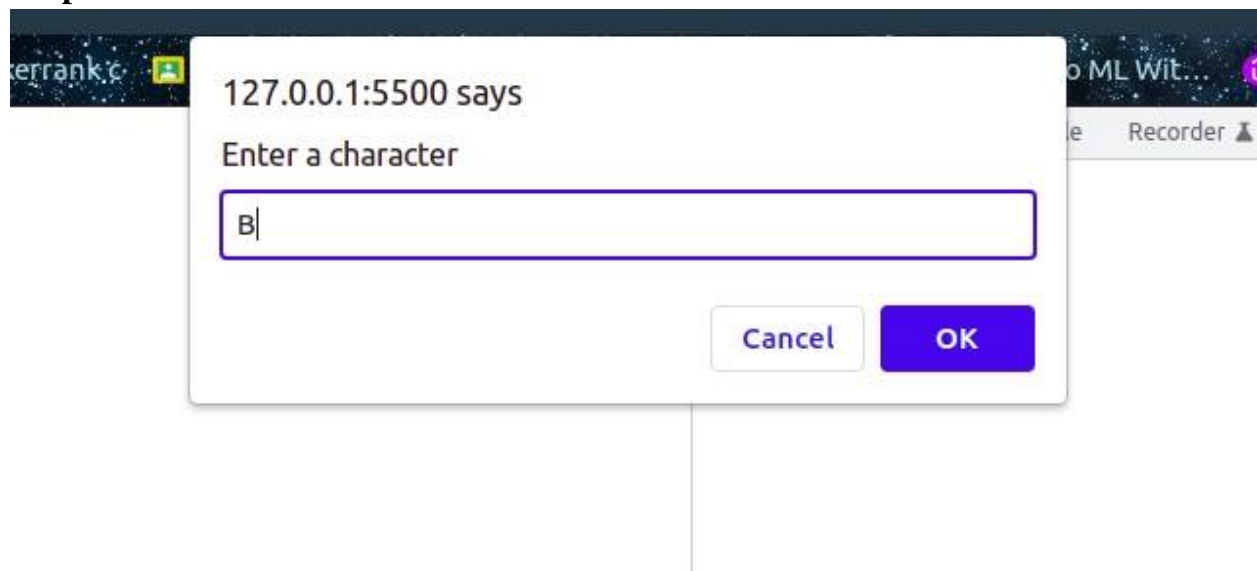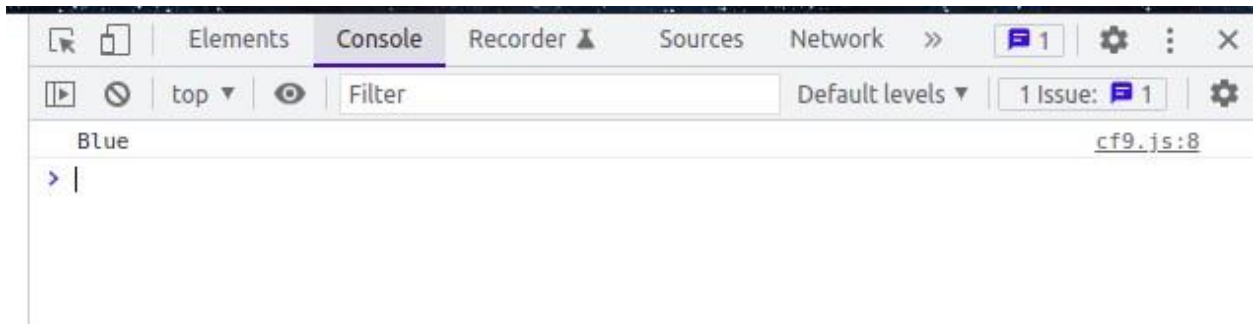
Output:-

10.In the Martian land faraway, a new virus has evolved and is attacking the individuals at a fast pace. The scientists have figured out the virus composition, V. The big task is to identify the people who are infected. The sample of N people is taken to check if they are POSITIVE or NEGATIVE. A report is generated which provides the current blood composition B of the person.

Code:-

```javascript
const func = () => {
  let str = prompt("Enter the Name: ");
  let sub = prompt("Enter the Code: ");
  const x = sub.length;
  let cnt = 0;
   if (str.length < sub.length)
  {
    console.log("Negative");
    return;
  }
  let y = 0;
  for (let i = 0; i < x; i++)
  {
    for (let j = y; j < str.length; j++)
    {
      if (str[j] === sub[i])
      {
        cnt++;
        y = j;
```

```javascript
            break;
        }
        else
            y = 0;
    }
}
if (cnt === sub.length)
    console.log("POSITIVE");
else
    console.log("NEGATIVE");
};
func();
```

Output-

127.0.0.1:5500 says

Enter a Name:

koushik

Cancel   OK

127.0.0.1:5500 says

Enter the Code:

kshi

Cancel   OK

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POSITIVE   cf10.js:28

>