Assignments
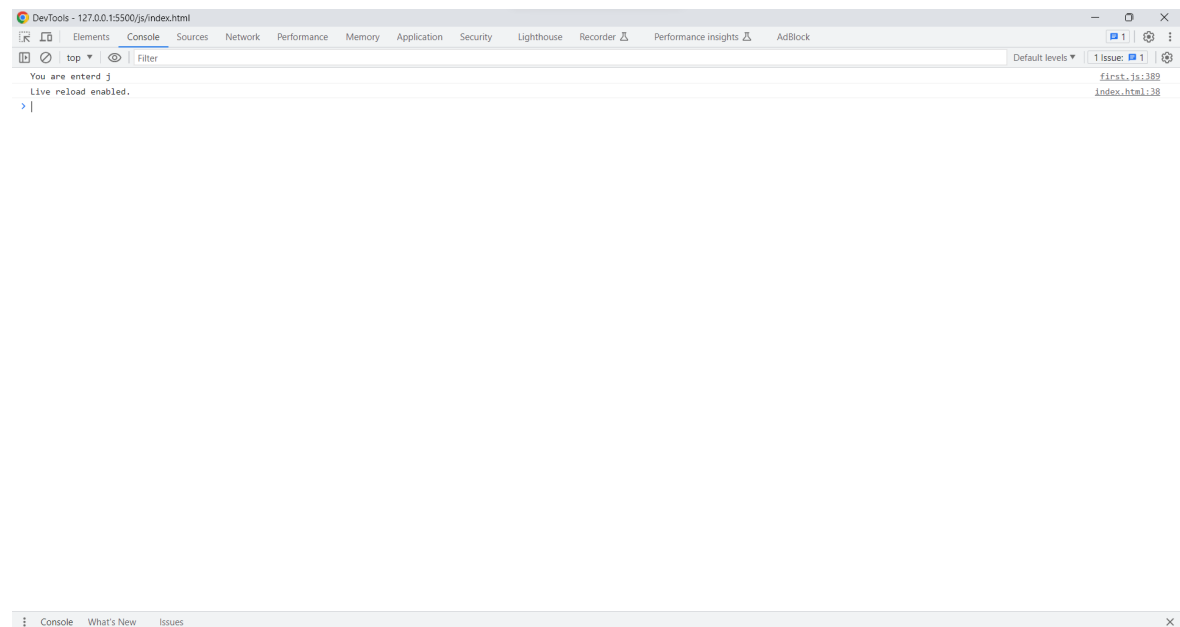
1. Accept a char input from the user and display it on the console.

Code of the program & screenshot of the output.

const userInput = prompt("enter a character");

console.log(`You are entered ${userInput}`);

2. Accept two inputs from the user and output their sum.

Variable	Data Type
Number 1	Integer
Number 2	Float
Sum	Float

Code of the program & screenshot of the output.

```
let number_1 = prompt('enter a number');
let number_2 = prompt('enter a number with decimal point');
let num1 = parseInt(number_1)
let num2 = parseFloat(number_2)
let sum = num1+num2;
console.log('sum of entered numbers is '+sum)
```
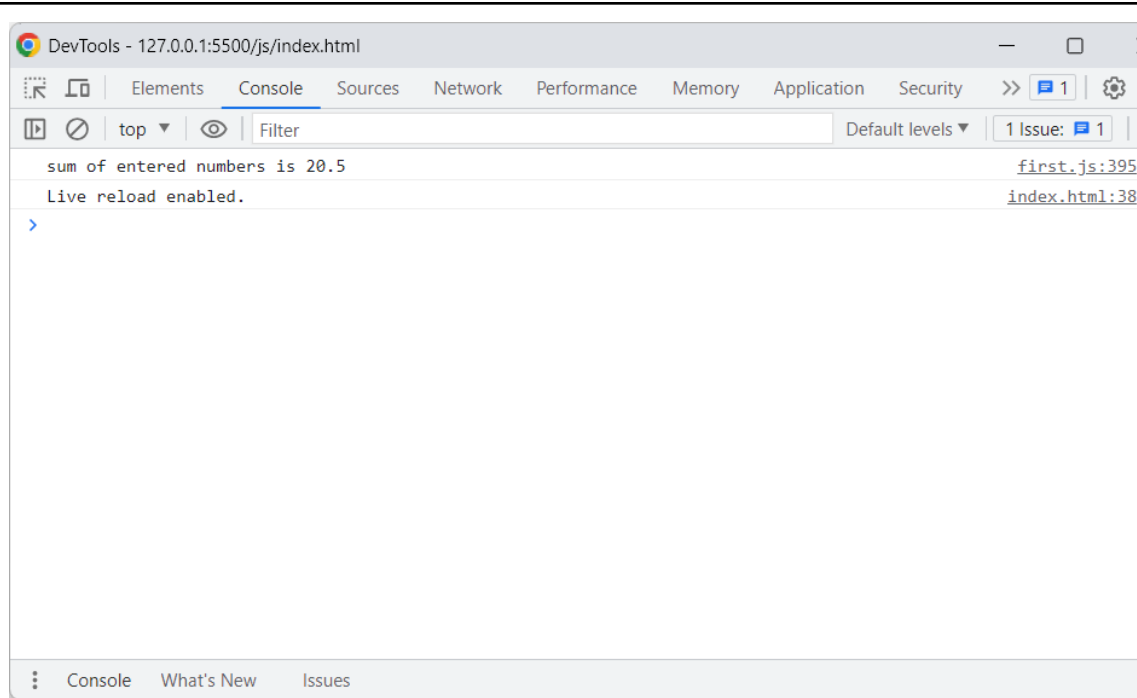
3. Write a program to find the simple interest.

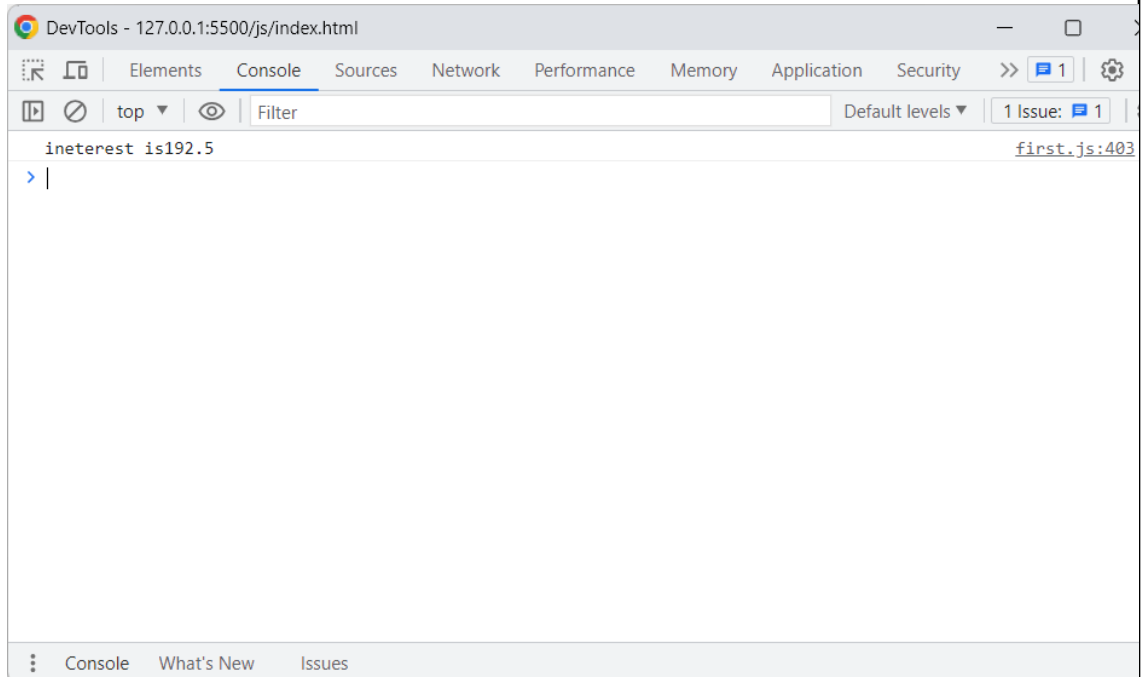   a. Program should accept 3 inputs from the user and calculate simple interest for the given inputs. Formula: SI=(P*R*n)/100)

Variable	Data Type
Principal amount (P)	Integer
Interest rate (R)	Float
Number of years (n)	Float

Simple Interest (SI)	Float

Code of the program & screenshot of the output.

let p = prompt('enter principle amount');

let r = prompt('enter interest rate');

let n = prompt('enter number of years');

let principleAmount = parseInt(p);

let interestRate = parseFloat(r);

let numberOfYear = parseFloat(n);

let si = (principleAmount*interestRate*numberOfYear)/100;

console.log('ineterest is'+si);

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ineterest is192.5   first.js:403

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4. Write a program to check whether a student has passed or failed in a subject after he or she enters their mark (pass mark for a subject is 50 out of 100).

    a. Program should accept an input from the user and output a message as "Passed" or "Failed"

Variable	Data type
mark	float

Code of the program & screenshot of the output.

```
let mark = prompt("Please enter your mark");
let Mark = parseFloat(mark);
if(Mark >100||Mark<0){
  console.log("please check your mark")
}
else if(Mark >= 50){
  console.log('passed')
}else{
  console.log("Failed")
}
```
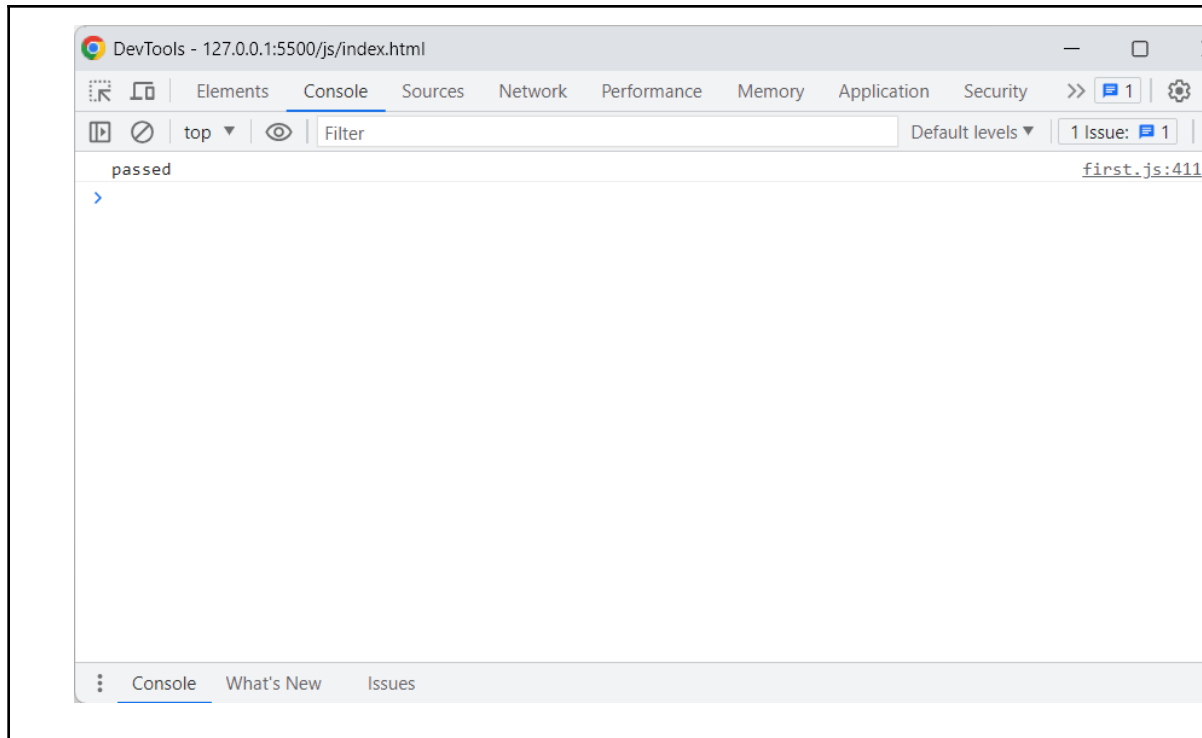
5. Write a program to show the grade obtained by a student after he/she enters their total mark percentage.

    a. Program should accept an input from the user and display their grade as follows

Mark	Grade
> 90	A
80-89	B
70-79	C
60-69	D
50-59	E
< 50	Failed

Variable	Data type
Total mark	float

Code of the program & screenshot of the output.

```
let mark = prompt("Please enter your total mark");
let totoalMark = parseFloat(mark);
if(totoalMark>=90&&totoalMark<=100){
  console.log('A Grade')
}
else if (totoalMark>=80&&totoalMark<=89){
  console.log('B Grade')
}
else if (totoalMark>=70&&totoalMark<=79){
  console.log("C Grade")
}
else if (totoalMark>=60&&totoalMark<=69){
  console.log("D Grade")
}
else if (totoalMark>=50&&totoalMark<=59){
  console.log("E Grade")
}
else if (totoalMark>=0&&totoalMark<50){
  console.log("Failed")
}
else{
  console.log("Please check your mark")
}
```
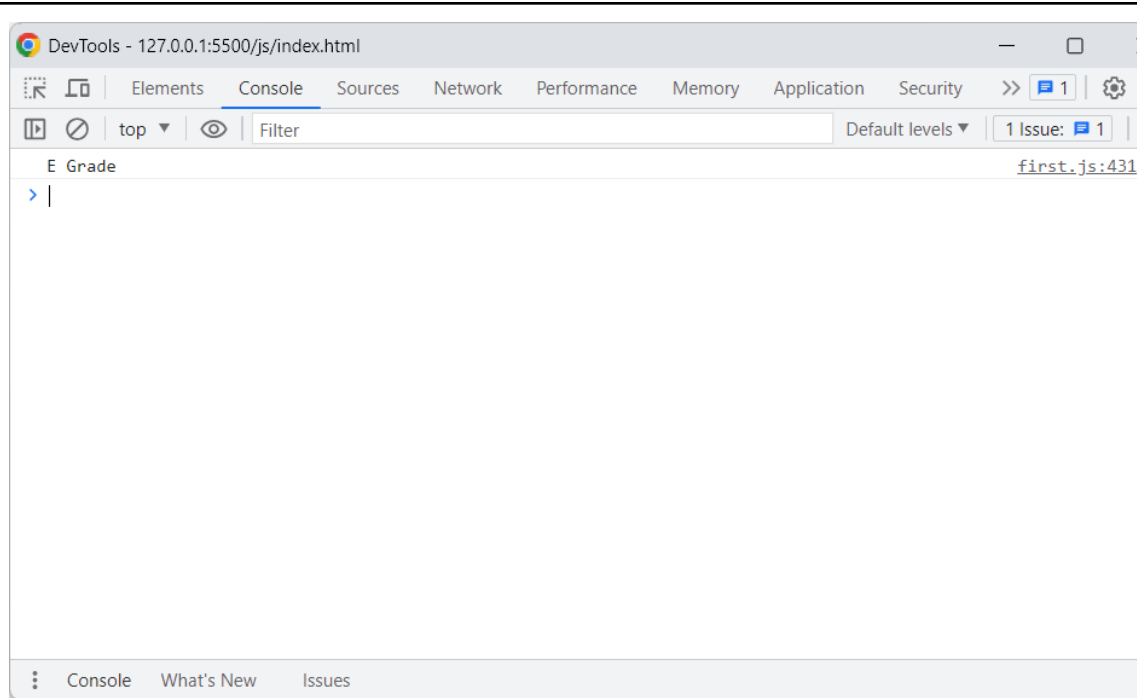
6. Using the 'switch case' write a program to accept an input number from the user and output the day as follows.

Input	Output
1	Sunday
2	Monday
3	Tuesday
4	Wednesday
5	Thursday
6	Friday
7	Saturday

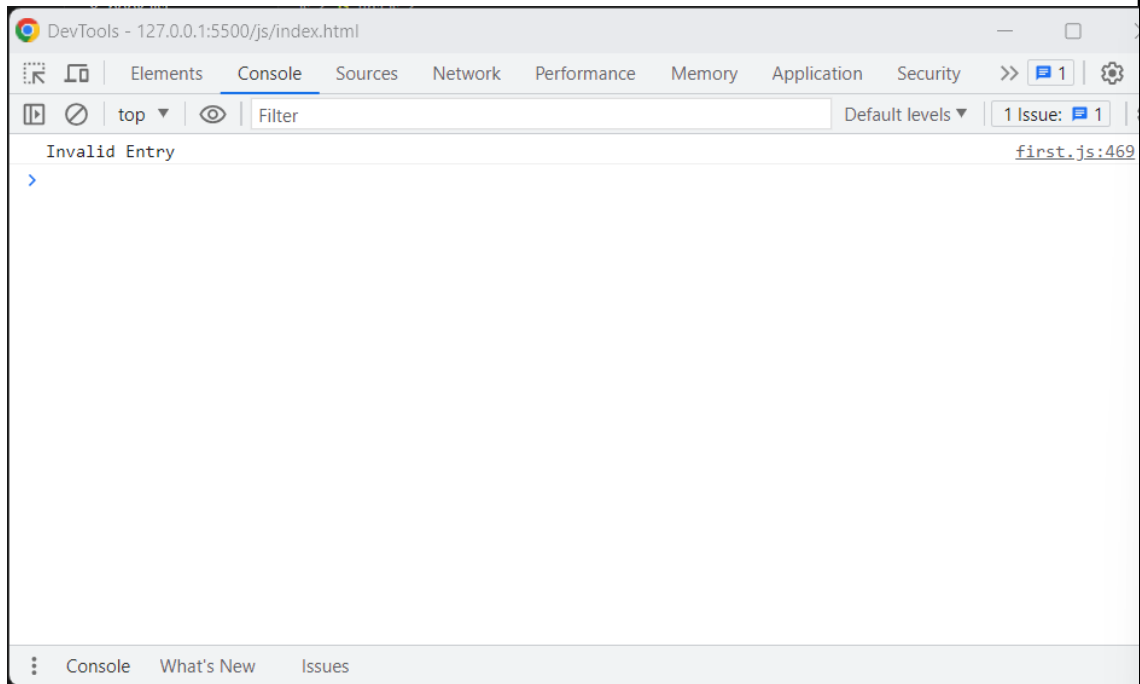| Any other input	Invalid Entry

Code of the program & screenshot of the output.

```
let input = prompt('Enter a number (1-7):')
let day;
switch (parseInt(input)) {
  case 1:
    day = 'Sunday';
    break;
  case 2:
    day = 'Monday';
    break;
  case 3:
    day = 'Tuesday';
    break;
  case 4:
    day = 'Wednesday';
    break;
  case 5:
    day = 'Thursday';
    break;
  case 6:
    day = 'Friday';
    break;
  case 7:
    day = 'Saturday';
    break;
    default:
```

day = 'Invalid Entry'

}

console.log(day);

7. Write a program to print the multiplication table of given numbers.

    a.   Accept an input from the user and display its multiplication table

        Eg:

        Output: Enter a number

        Input: 5

        Output:

1 x 5 = 5

2 x 5 = 10

3 x 5 = 15

4 x 5 = 20

5 x 5 = 25

6 x 5 = 30

7 x 5 = 35
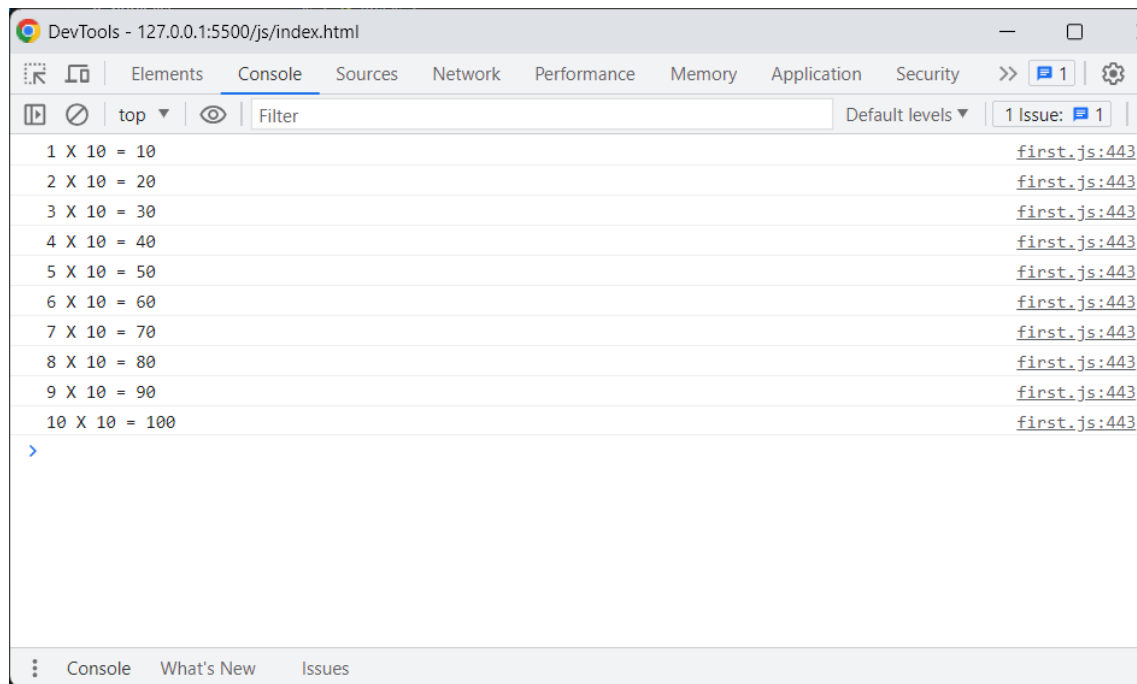
8 x 5 = 40

9 x 5 = 45

10 x 5 = 50

Code of the program & screenshot of the output.

```
let input = prompt("Enter a number");
let number = parseInt(input);
for(let i = 1;i <=10; i++){
  console.log(`${i} X ${number} = ${i*number}`)
}
```

```
1 X 10 = 10                                                      first.js:443
2 X 10 = 20                                                      first.js:443
3 X 10 = 30                                                      first.js:443
4 X 10 = 40                                                      first.js:443
5 X 10 = 50                                                      first.js:443
6 X 10 = 60                                                      first.js:443
7 X 10 = 70                                                      first.js:443
8 X 10 = 80                                                      first.js:443
9 X 10 = 90                                                      first.js:443
10 X 10 = 100                                                    first.js:443
>
```

8. Write a program to find the sum of all the odd numbers for a given limit

   a. Program should accept an input as limit from the user and display the sum of all the odd numbers within that limit

      For example if the input limit is 10 then the result is 1+3+5+7+9 = 25

      Output: Enter a limit

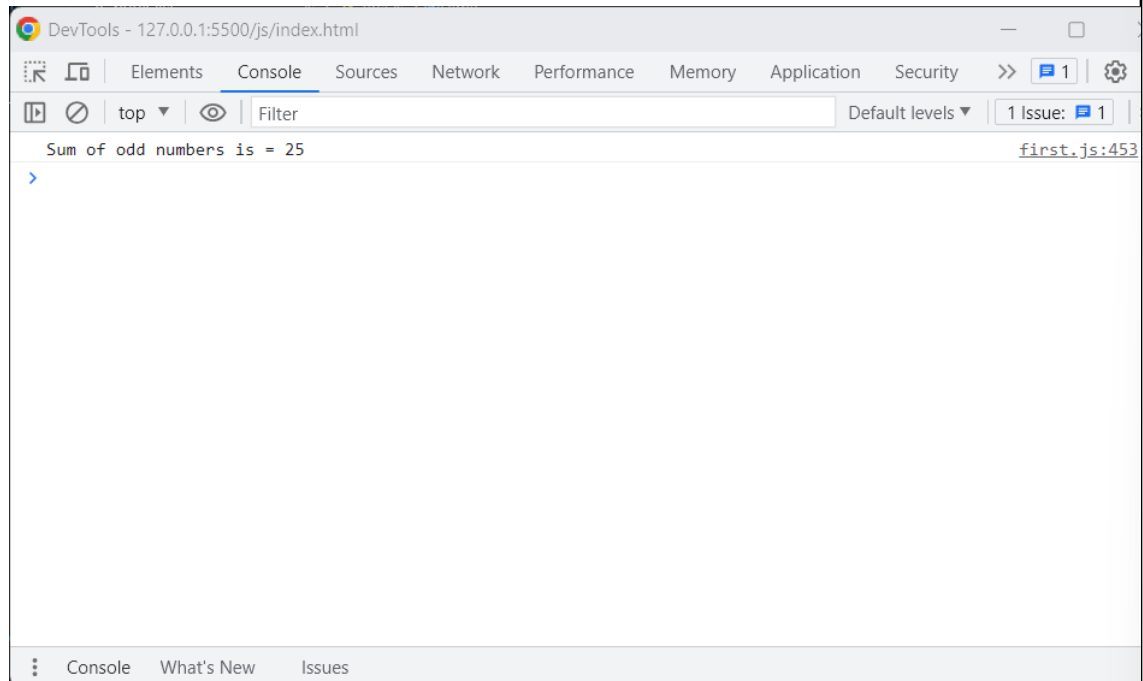   **Input**: 10

      Output: Sum of odd numbers = 25

Code of the program & screenshot of the output.

let input = prompt('Enter a limit');

let limit = parseInt(input);

let sum =0;

```
for(let i =1;i<=limit;i++){
  if(i%2!=0){
    sum+=i
  }
}
console.log(`Sum of odd numbers is = ${sum}`);
```

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Sum of odd numbers is = 25   first.js:453

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9. Write a program to print the following pattern (**hint**: use nested loop)

1

1 2

1 2 3

1 2 3 4

1 2 3 4 5

Code of the program & screenshot of the output.

```javascript
let n =5;
let pattern=0;
for(let i=1;i<=n;i++){
  for(let j=1;j<=n;j++){
    if(j<=i){
      pattern+=j;
    }else{
      pattern+=' ';
    }
  }
  pattern+='\n';
}
console.log(pattern);
```
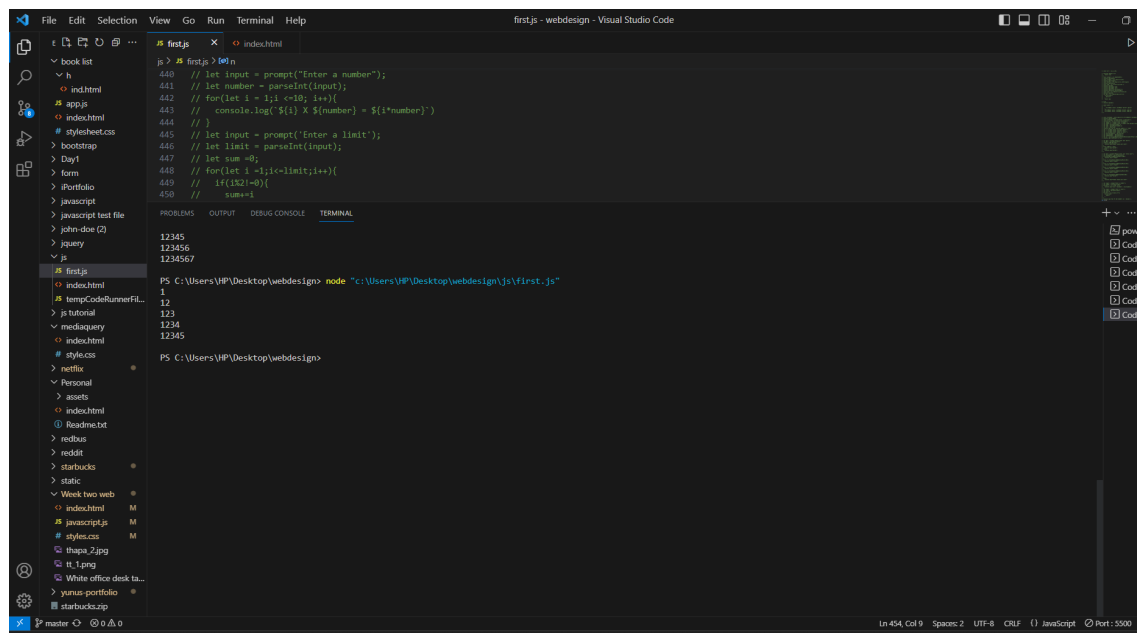
10. Write a program to interchange the values of two arrays.

    a. Program should accept an array from the user, swap the values of two arrays and display it on the console

        Eg: **Output**: Enter the size of arrays

        Input: 5

        Output: Enter the values of Array 1

        Input: 10, 20, 30, 40, 50

        Output: Enter the values of Array 2

        Input: 15, 25, 35, 45, 55

        Output: Arrays after swapping:

        Array1: 15, 25, 35, 45, 55

        Array2: 10, 20, 30, 40, 50

Code of the program & screenshot of the output.

```
let arraySize = prompt('Enter size of array');
let size = parseInt(arraySize);
let input1 = prompt(`Enter ${size} values of array1 separated by commas `);
let input2 = prompt(`Enter ${size} values of array2 separated by commas `);
let array1 = input1.split(',');
let array2 = input2.split(',');
let temp =[];
for(i=0;i<size;i++){
  temp[i]=array1[i];
  array1[i]=array2[i];
```

array2[i]=temp[i];

}

console.log('Array after swapping');

console.log('array one '+array1)

console.log('array two '+array2)

```
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   Array after swapping                                                      first.js:479
   array one 15,25,35,45,55                                                  first.js:480
   array two 10,20,30,40,50                                                  first.js:481
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```

11. Write a program to find the number of even numbers in an array

    a. Program should accept an array and display the number of even numbers
        contained in that array

        Eg: **Output**: Enter the size of an array

        Input: 5

        Output: Enter the values of array

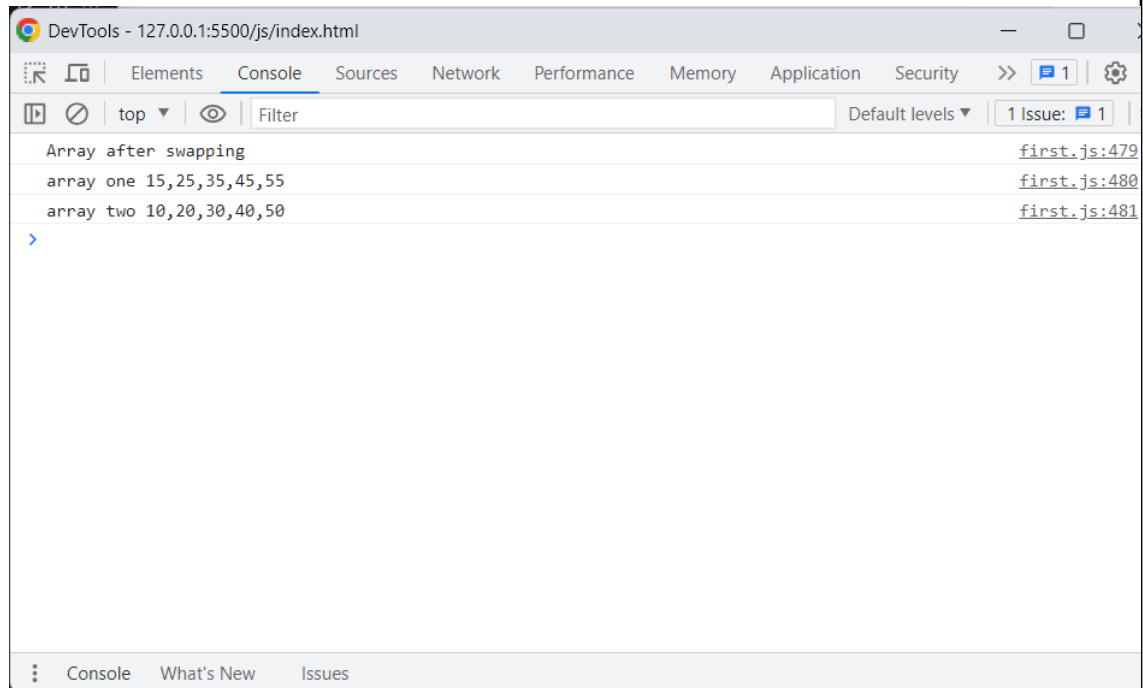| |
|---|
| **Input:** 11, 20, 34, 50, 33 |
| **Output:** Number of even numbers in the given array is 3 |
| *Code of the program & screenshot of the output.* |

```
let arraySize = prompt('Enter size of array');
let size = parseInt(arraySize);
let input = prompt(`Enter ${size} values of array1 separated by commas `);
let array = input.split(',');
let count = 0;
for(let i=0;i<size;i++){
  if(array[i]%2==0){
    count++;
  }
}
console.log(`Number of even numbers in the given array is ${count}`)
```
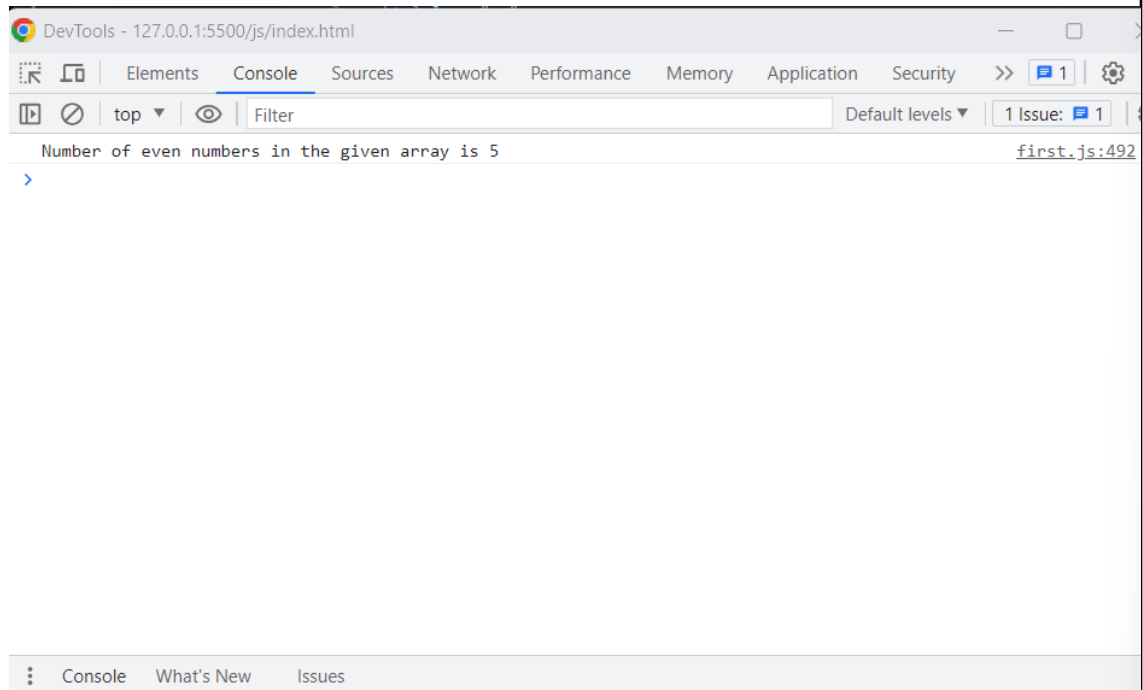
12. Write a program to sort an array in descending order

    a. Program should accept and array, sort the array values in descending order and display it

    Eg: **Output**: Enter the size of an array

    Input: 5

    Output: Enter the values of array

    Input: 20, 10, 50, 30, 40
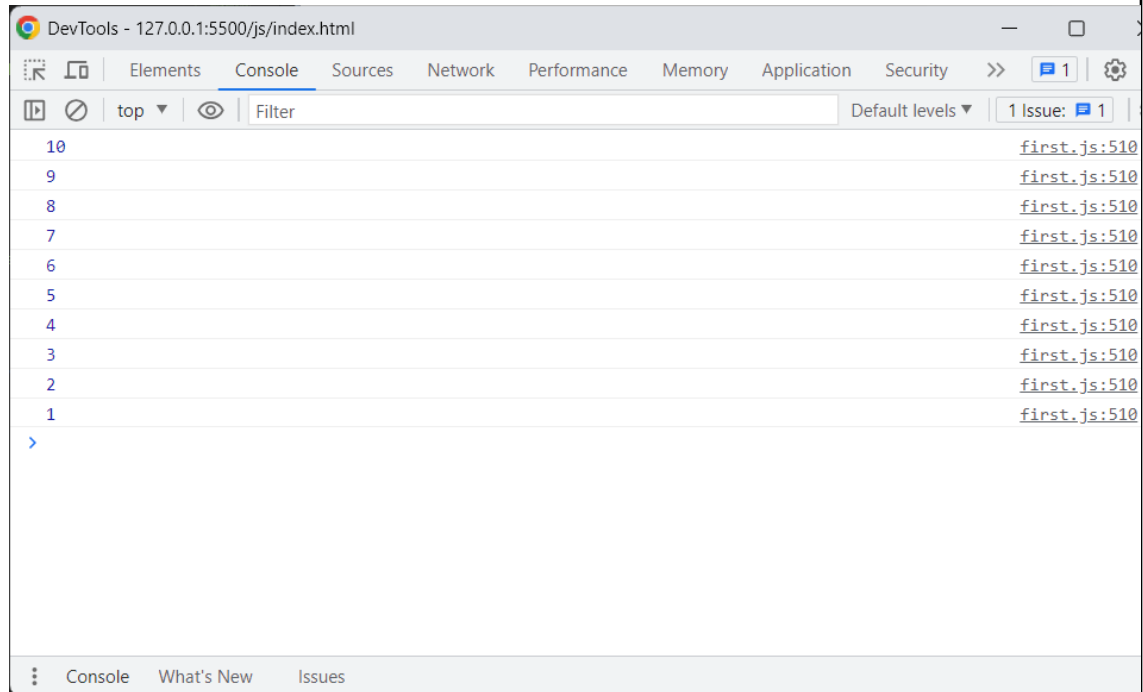
    Output: Sorted array:

    50, 40, 30, 20, 10

Code of the program & screenshot of the output.

```
let input =[];
let size = parseInt(prompt("enter size of array"))
for(let i=0;i<size;i++){
   input [i]= parseInt(prompt("enter values of array"))
}
for(i=0;i<size;i++){
  for(let j=i+1;j<size;j++){
    if(input[i]<input[j]){
    let temp=input[i];
    input[i]=input[j];
    input[j]=temp;
  }
  }
}
for(i=0;i<size;i++){
```

console.log(input[i])

}

13. Write a program to identify whether a string is a palindrome or not

    a. A string is a palindrome if it reads the same backward or forward eg: MALAYALAM

    Program should accept a string and display whether the string is a palindrome or not

    Eg: **Output**: Enter a string

   **Input**: MALAYALAM

    Output: Entered string is a palindrome

Eg 2: **Output**: Enter a string
Input: HELLO
Output: Entered string is not a palindrome

Code of the program & screenshot of the output.

```
let word = prompt("enter a word");
const length = word.length;
for(let i=0;i<length/2;i++){
  if(word[i]!==word[length-1-i]){
    console.log('The entered word is not palindrome')
    break;
  }else{
    console.log('The entered word is a palindrome')
  }
}
```
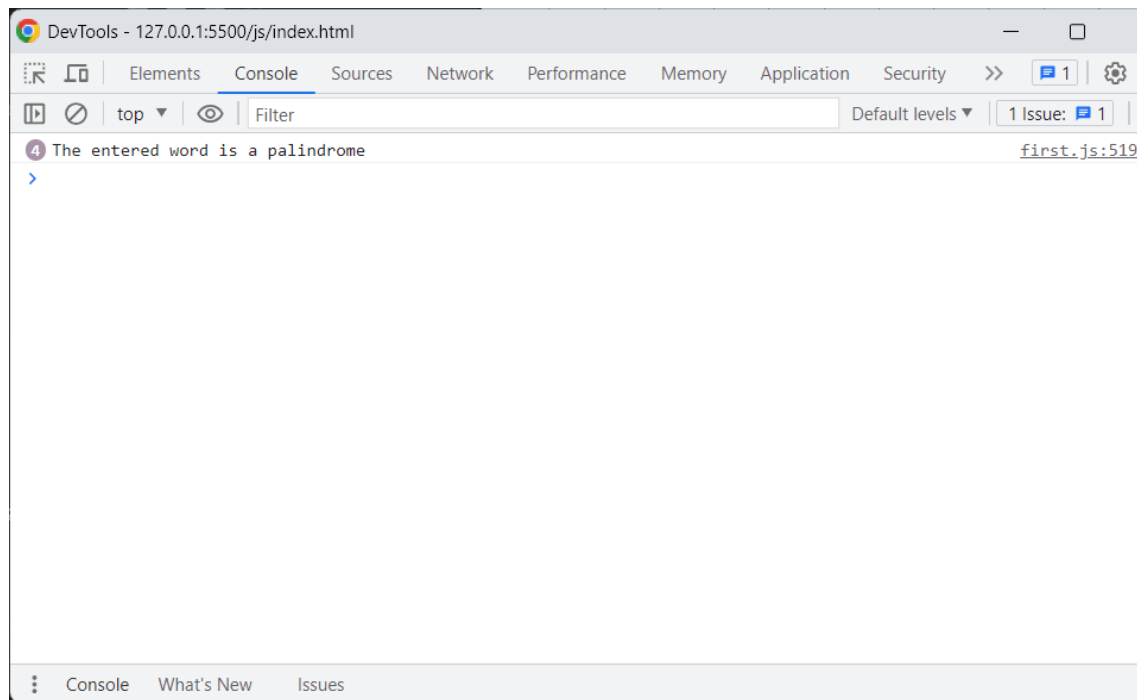
14. Write a program to add to two dimensional arrays

    a. Program should accept two 2D arrays and display its sum

       Eg: **Output**: Enter the size of arrays

       Input: 3

       Output: Enter the values of array 1

       Input:

       1 2 3

       4 5 6

       7 8 9

       Output: Enter the values of array 2

       Input:

10 20 30

40 50 60

70 80 90

Output: Sum of 2 arrays is:

11 22 33

44 55 66

77 88 99

Code of the program & screenshot of the output.

```
const array1=[];
const array2=[];
const sum =[];
const size = parseInt(prompt("Enter size of array"));
for(let i=0;i<size;i++){
  const arrayRow=[];
  for(let j=0;j<size;j++){
    arrayRow[j]=parseInt(prompt("Enter values of first  array"))
  }
  array1.push(arrayRow)
}
for(let i=0;i<size;i++){
  const arrayRow=[];
  for(let j=0;j<size;j++){
    arrayRow[j]=parseInt(prompt("Enter values of second array"))
  }
  array2.push(arrayRow)
}
```

```
  for(let i=0;i<size;i++){
    const arrayRow=[];
   for(let j=0;j<size;j++){
     arrayRow[j]= array1[i][j]+array2[i][j];


   }
   sum.push(arrayRow)
  }
  console.log(sum)
```
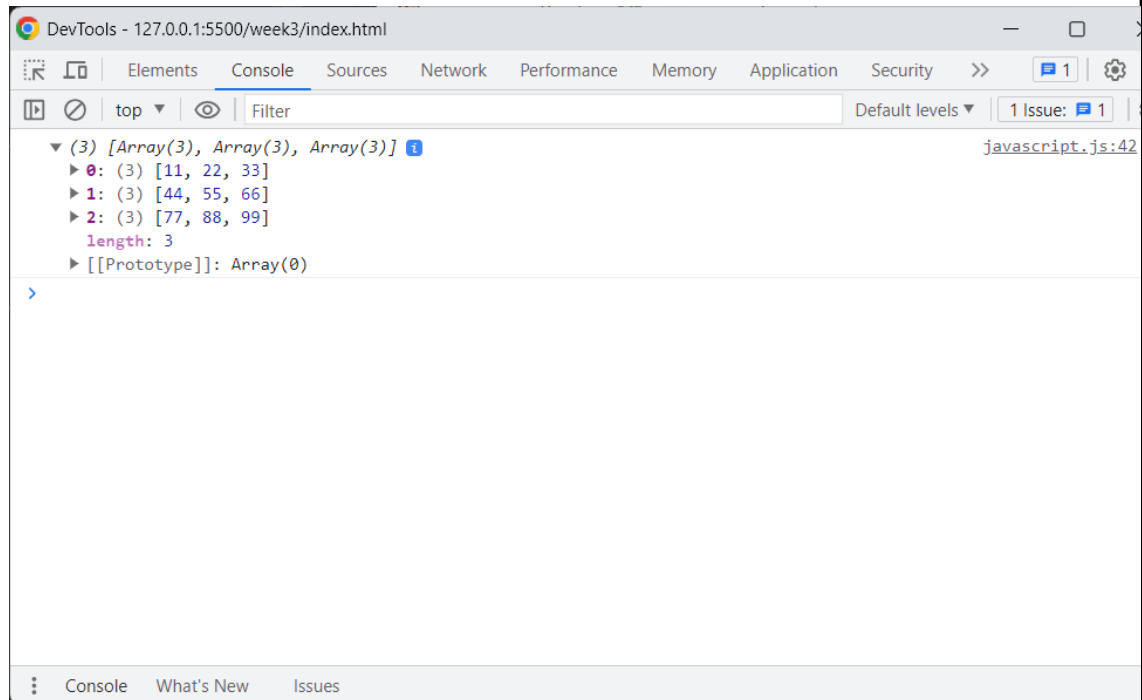

15. Write a program to accept an array and display it on the console using functions

    a. Program should contain 3 functions including main() function

    main()

       1. Declare an array

2. Call function getArray()

3. Call function displayArray()

getArray()

1. Get values to the array

displayArray()

1. Display the array values

Code of the program & screenshot of the output.

```
function getArray(){
  const array = [];
  const size = parseInt(prompt("Enter size of array"));
  for(let i=0;i<size;i++){
    array[i]=parseInt(prompt("Enter values of array"));
  }
  return array;
}
function displayArray(array){
console.log('array values are');
for(let i=0;i<array.length;i++){
  console.log(array[i]);
}
}
function main(){
 const arr  = getArray();
  displayArray(arr);
}
main();
```
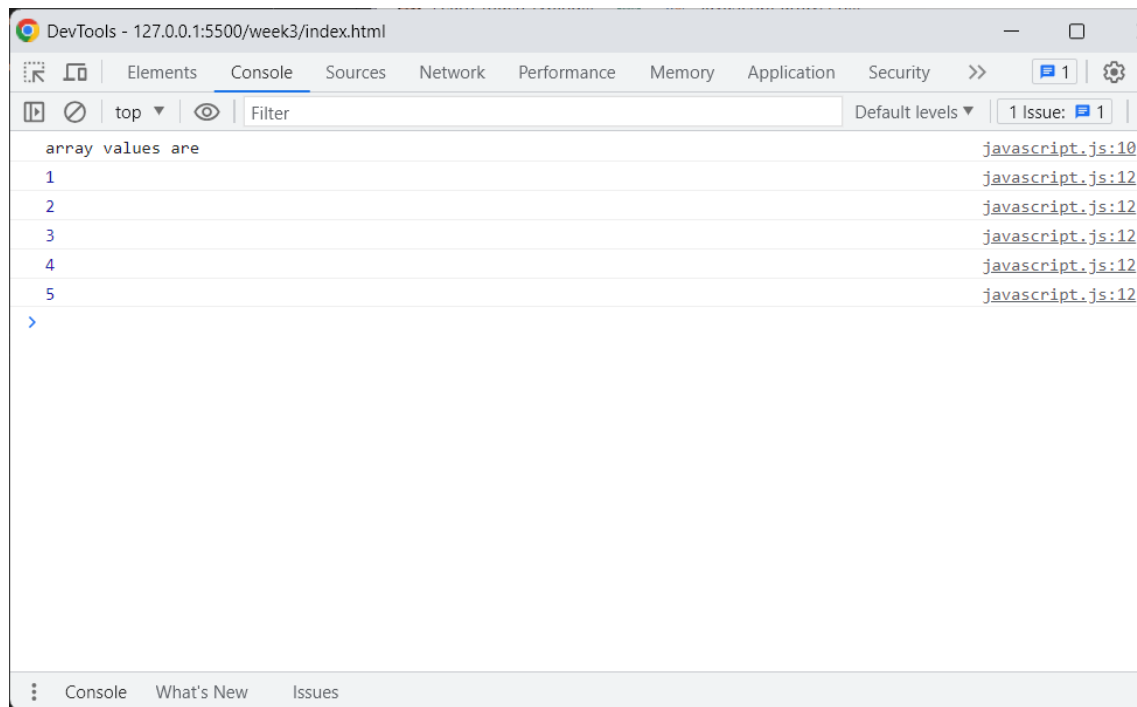
16. Write a program to check whether a given number is prime or not

    a. Program should accept an input from the user and display whether the number is prime or not

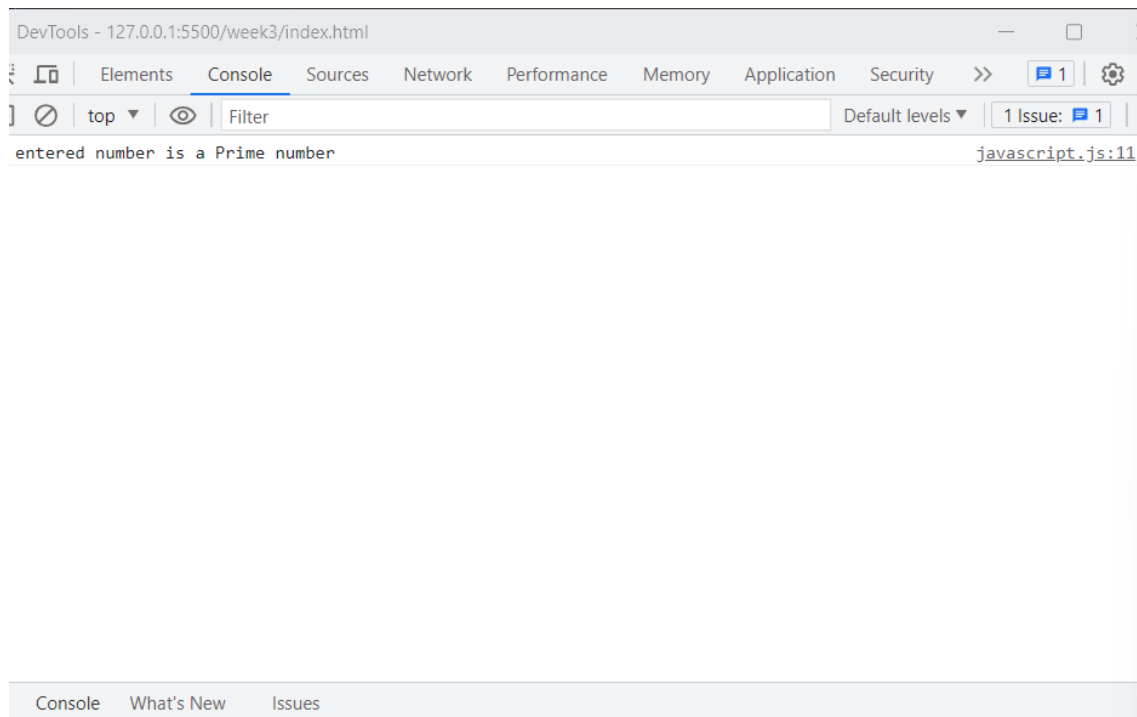   Eg: **Output**: Enter a number

    Input: 7

    Output: Entered number is a Prime number

Code of the program & screenshot of the output.

```
let input = parseInt(prompt('Enter a number'));
let count =0;
for(let i=2;i<input-1;i++){
  if(input%i==0){
    count++;
```

```
      console.log('Entered number is not a prime number')

      break;

    }

  }

  if(count==0){

    console.log('entered number is a Prime number')

  }
```


17. Write a menu driven program to do the basic mathematical operations such as addition, subtraction, multiplication and division (**hint**: use if else ladder or switch)

    a. Program should have 4 functions named addition(), subtraction(), multiplication() and division()

    b. Should create a class object and call the appropriate function as user prefers in the main function

Code of the program & screenshot of the output.

```javascript
class Calculations {
  addition(num1, num2) {
    return num1 + num2;
  }
  subtraction(num1, num2) {
    return num1 - num2;
  }
  multiplication(num1, num2) {
    return num1 * num2;
  }
  division(num1, num2) {
    return num1 / num2;
  }
}
function main() {
  const calc = new Calculations();

  const choice = parseInt(prompt("Enter your
    choice\n1.addition\n2.substraction\n3.multiplication\n4.division"));
  switch (choice) {
    case 1:
      const num1 = parseInt(prompt("Enter first  number"))
      const num2 = parseInt(prompt("Enter second  number"))
      console.log("Result is :"+calc.addition(num1,num2))
      break;
    case 2:
      const num3 = parseInt(prompt("Enter first  number"))
      const num4 = parseInt(prompt("Enter second  number"))
      console.log("Result is :"+calc.subtraction(num3, num4))
      break;
```

```javascript
      case 3:
        const num5 = parseInt(prompt("Enter first  number"))
        const num6 = parseInt(prompt("Enter second  number"))
        console.log("Result is :"+calc.multiplication(num5, num6))
        break;
      case 4:
        const num7 = parseInt(prompt("Enter first  number"))
        const num8 = parseInt(prompt("Enter second  number"))
        console.log("Result is :"+calc.division(num7, num8))
        break;
      default:
        prompt("please enter a valid number");
    }
  }
main();
```

Learn Touch Typing...

127.0.0.1:5500 says

Enter your choice
1.addition
2.substraction
3.multiplication
4.division

[   ]

OK   Cancel

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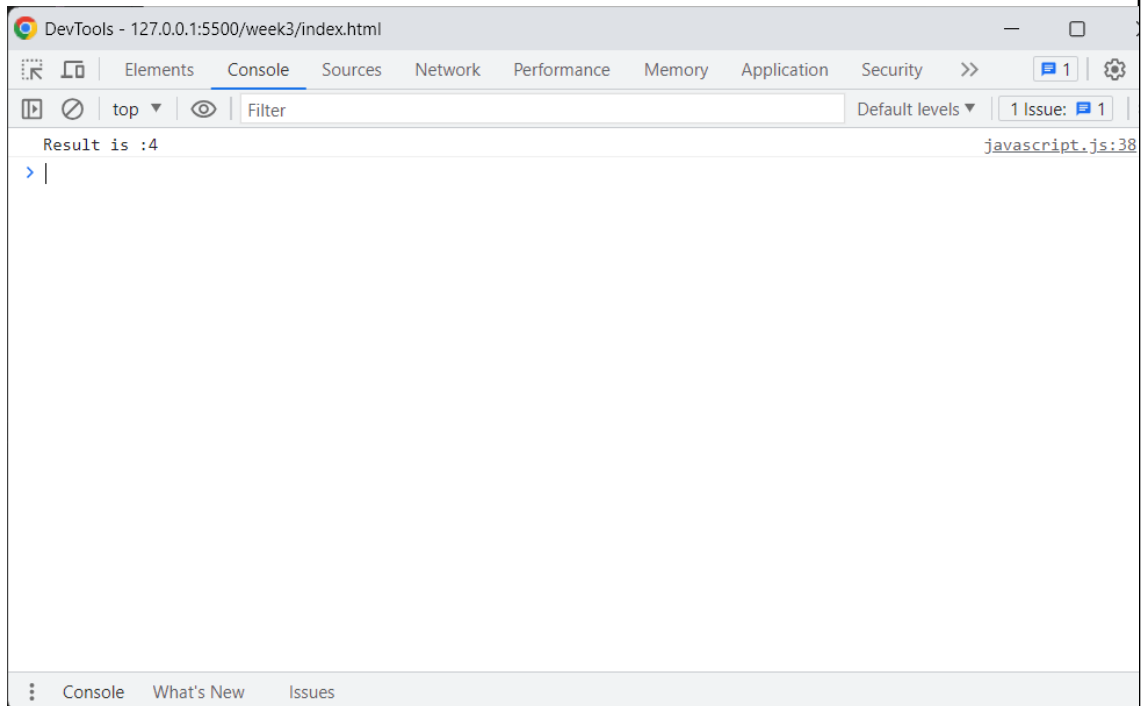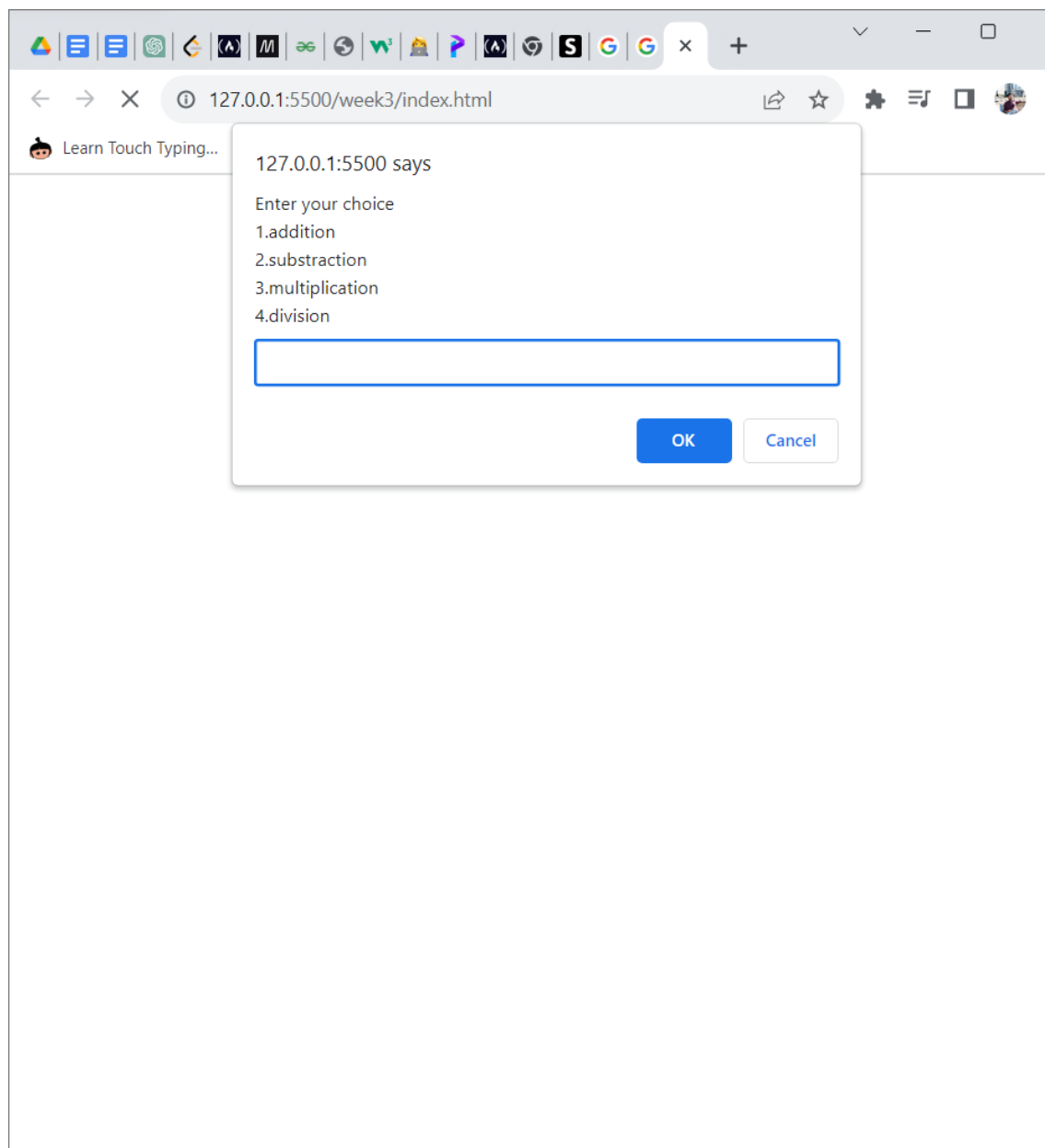
18. Grades are computed using a weighted average. Suppose that the written test counts 70%, lab exams 20% and assignments 10%.

If Arun has a score of

Written test = 81

Lab exams = 68

Assignments = 92

Arun's overall grade = (81x70)/100 + (68x20)/100 + (92x10)/100 = 79.5

Write a program to find the grade of a student during his academic year.

a. Program should accept the scores for written test, lab exams and assignments
b. Output the grade of a student (using weighted average)

Eg:

Enter the marks scored by the students

Written test = 55

Lab exams = 73

Assignments = 87

Grade of the student is 61.8

Code of the program & screenshot of the output.

```
const writtenTestWeight = 70;
const labExamsWeight = 20;
const assignmentsWeight = 10;
const writtenTest = parseInt(prompt("Enter the marks scored in written test"))
const labExams = parseInt(prompt("Enter the marks scored in lab exams"))
const assignment = parseInt(prompt("Enter the marks scored in assignment"))
const grade =
    (writtenTest*writtenTestWeight)/100+(labExams*labExamsWeight)/100+(assignment*assignmentsWeight)/100;
```

console.log(`Your Grade is ${grade}`);

```
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   Your Grade is 79.5                                                    javascript.js:10
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⋮  Console   What's New   Issues
```
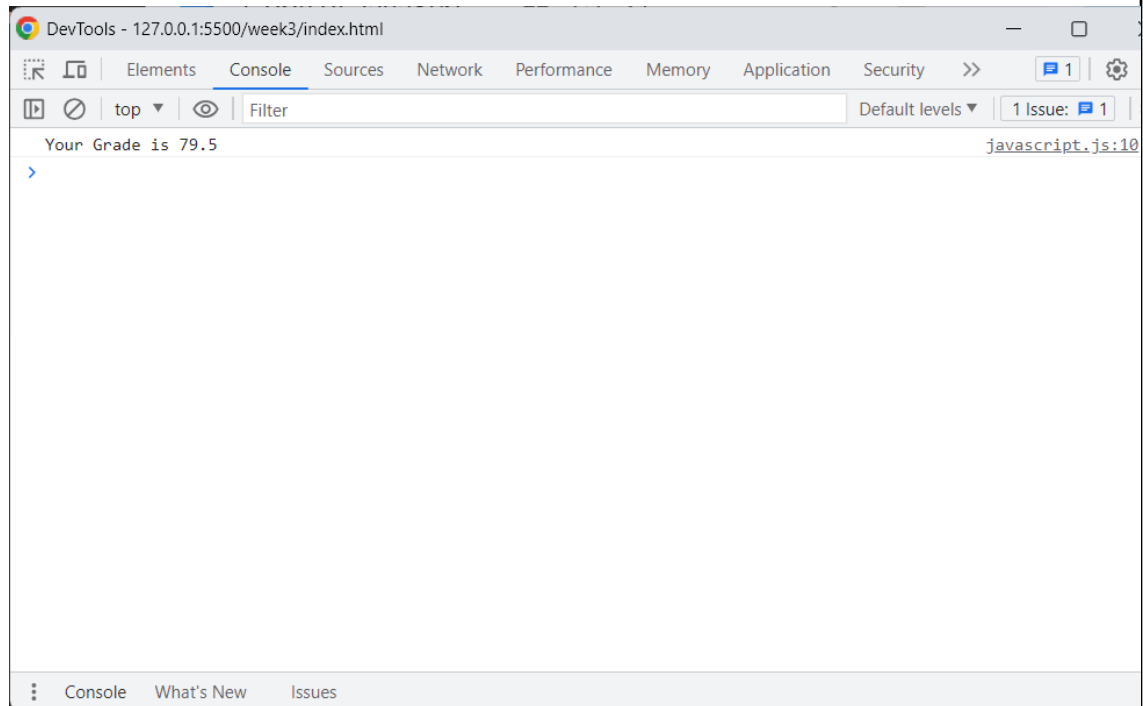
19. Income tax is calculated as per the following table

Annual Income	Tax percentage
Up to 2.5 Lakhs	No Tax
Above 2.5 Lakhs to 5 Lakhs	5%
Above 5 Lakhs to 10 Lakhs	20%
Above 10 Lakhs to 50 Lakhs	30%

Write a program to find out the income tax amount of a person.

a. Program should accept annual income of a person

   Output the amount of tax he has to pay

   Eg 1:

   Enter the annual income

   495000

   Income tax amount = 24750.00

   Eg 2:

   Enter the annual income

   500000

   Income tax amount = 25000.00

Code of the program & screenshot of the output.

```
const annualIncome = parseInt(prompt("Enter the annual income"));
if(annualIncome<=250000){
  console.log("No income tax payable")
}else if(annualIncome>250000&&annualIncome<=500000){
  const tax= (annualIncome*5)/100;
  console.log("income tax amount is:"+tax)
}else if(annualIncome>500000&&annualIncome<=1000000){
  const tax = (annualIncome*20)/100;
  console.log("income tax amount is:"+tax)
}else if(annualIncome>1000000&&annualIncome<=5000000){
  const tax = (annualIncome*30)/100;
  console.log("income tax amount is:"+tax)
}
```
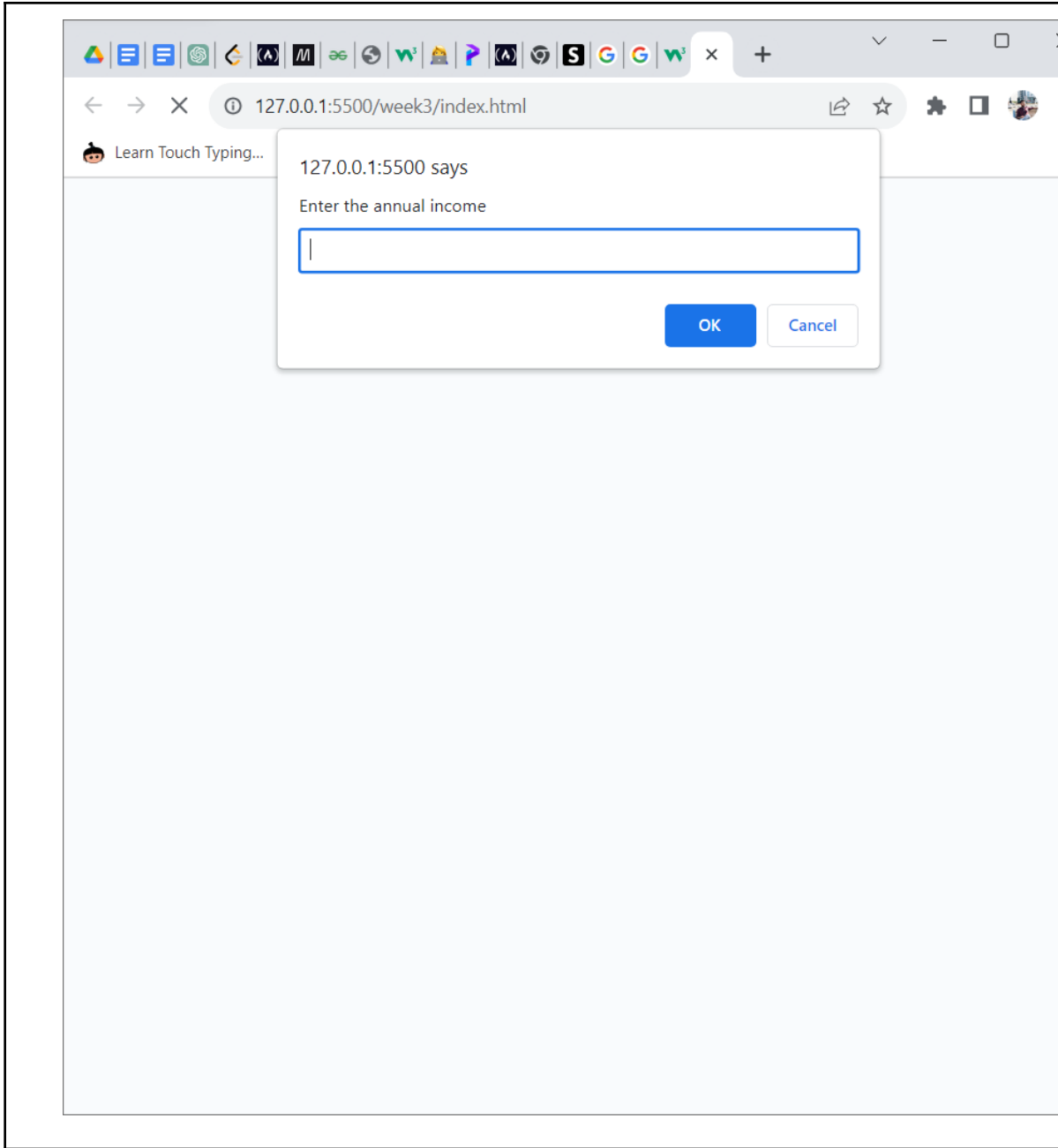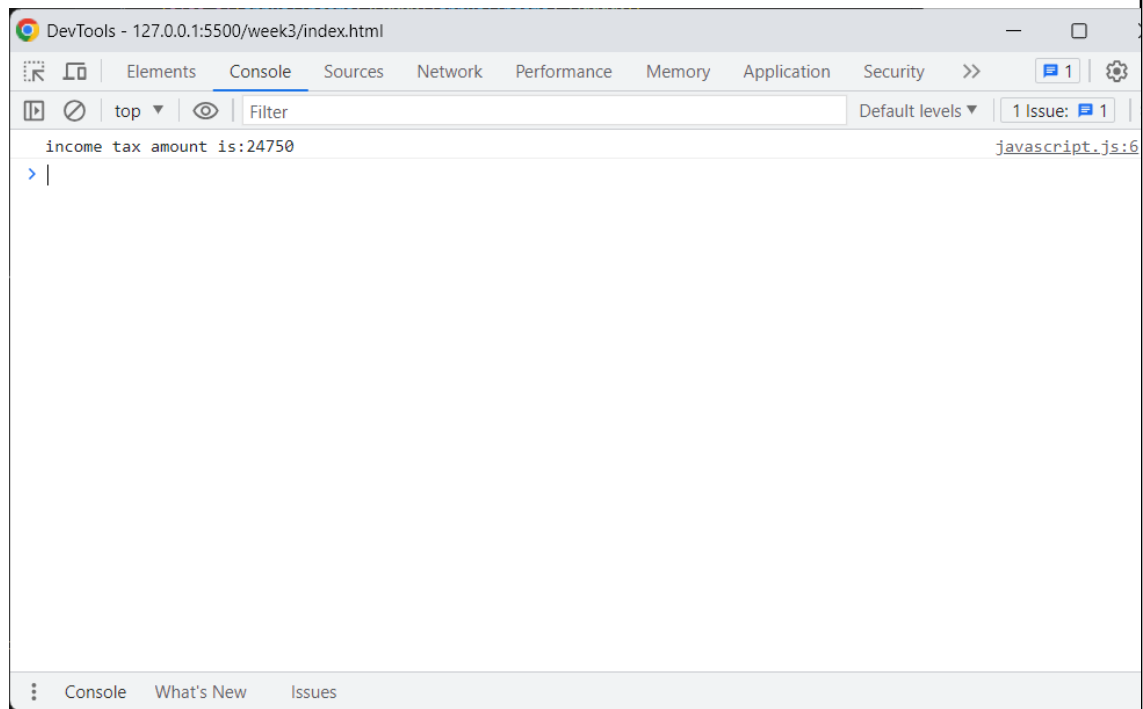
20. Write a program to print the following pattern using for loop
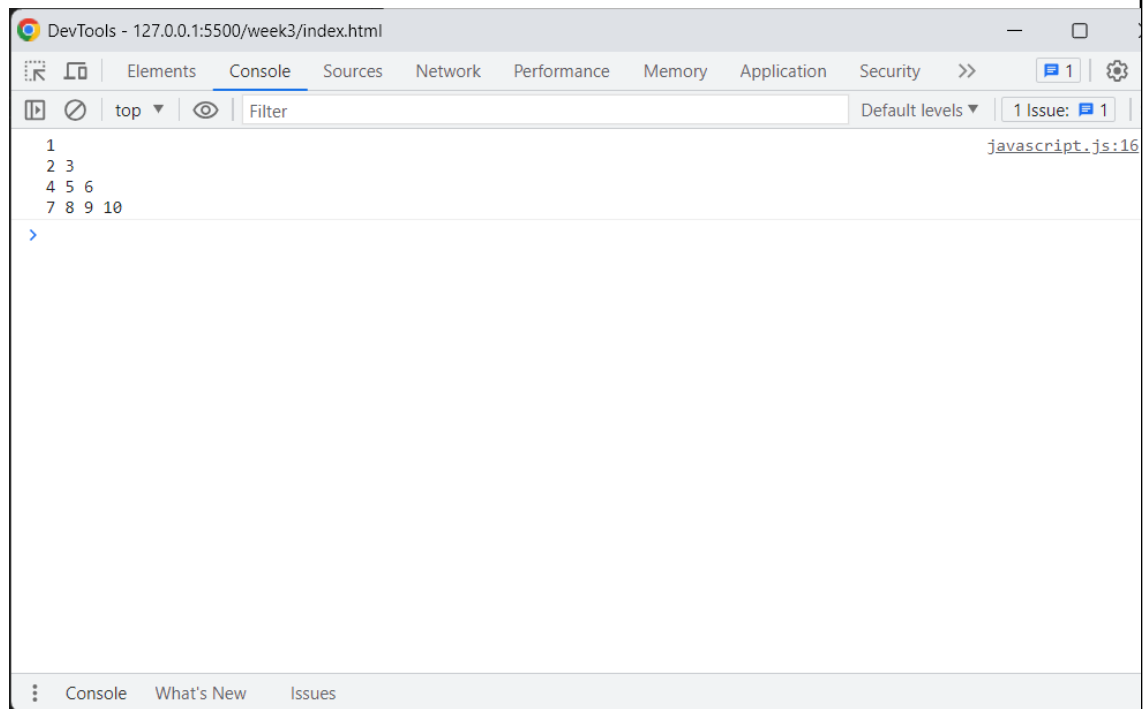
1

2   3

4   5   6

7   8   9   10

Code of the program & screenshot of the output.

```
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  1                                                                          javascript.js:16
  2 3
  4 5 6
  7 8 9 10
>

  ⋮  Console   What's New   Issues
```

```javascript
let pattern='';
let n =4;
let k=1;
for(let i=0;i<n;i++){
  for(let j=0;j<n;j++){
    if(j<=i){
      pattern+=k+' ';
      k++;
    }
    else{
      pattern+=' ';
    }
  }
  pattern+='\n';
}
console.log(pattern);
```

21. Write a program to multiply the adjacent values of an array and store it in an another array

    a. Program should accept an array

    b. Multiply the adjacent values

    c. Store the result into another array

Eg:

Enter the array limit

5

Enter the values of array
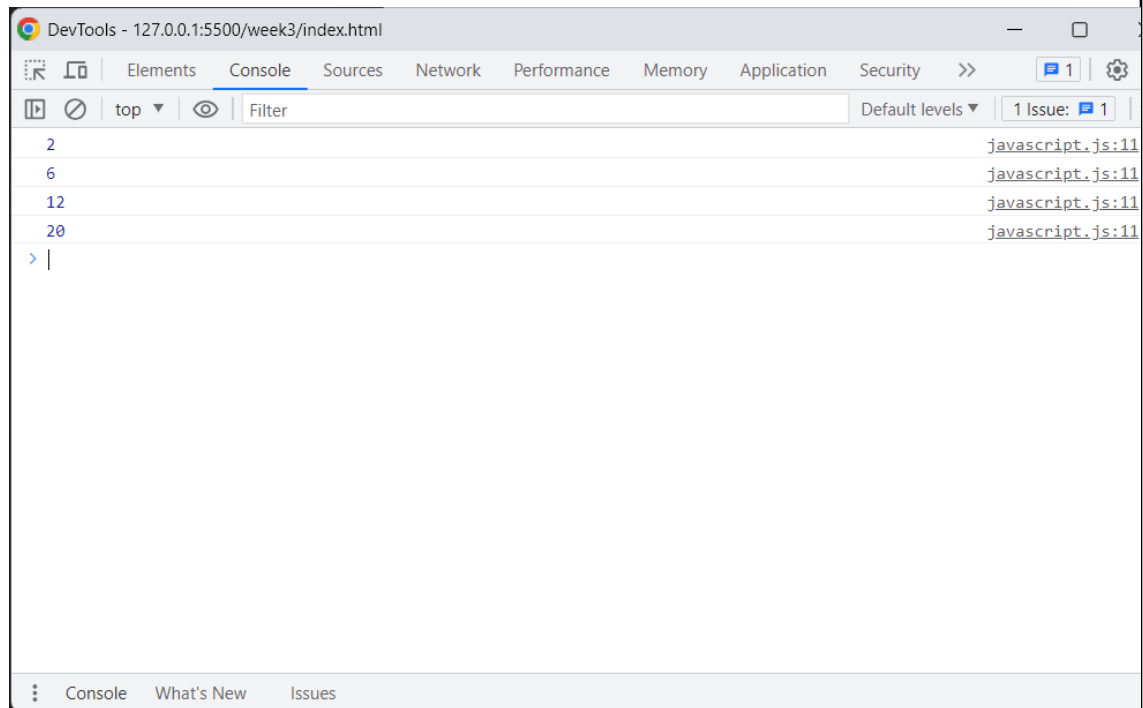
1   2   3   4   5

Output

2   6   12   20

Code of the program & screenshot of the output.

```
const limit = parseInt(prompt('Enter array limit'));
let arr = [];
let result=[];
for(let i=0;i<limit;i++){
  arr[i]=parseInt(prompt("enter values of array"));
}
for(let j=0;j<limit-1;j++){
  result[j]=arr[j]*arr[j+1];
}
```

result.forEach(n => {

  console.log(n);

});

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```
2                                                                    javascript.js:11
6                                                                    javascript.js:11
12                                                                   javascript.js:11
20                                                                   javascript.js:11
> |
```

Console   What's New   Issues

---

22. Write a program to add the values of two 2D arrays

    a. Program should contains 3 functions including the main function

main()

       1. Call function getArray()

       2. Call function addArray()

       3. Call function displayArray()

getArray()

1. Get values to the array

getArray()

1. Add array 1 and array 2

displayArray()

1. Display the array values

Eg:

Enter the size of array

2

Enter the values of array 1

1   2

3   4

Enter the values of array 2

5   6

7   8

Output:

Sum of array 1 and array 2:

6   8

10   12

Code of the program & screenshot of the output

```
function getArray(){
  const limit = parseInt(prompt("Enter size of array"));
  const arr = [];
  for(let i=0;i<limit;i++){
    const arrRow=[];
    for(let j=0;j<limit;j++){
      arrRow[j]=parseInt(prompt("Enter values of array"));

    }
    arr.push(arrRow);
  }
  return arr;
}
function addArray(arr1,arr2){
  const sum =[]
  for(let i=0;i<arr1.length;i++){
    const sumRow = [];
    for(let j=0;j<arr1.length;j++){
      sumRow[j]=arr1[i][j]+arr2[i][j];
    }
    sum.push(sumRow);
  }
  return sum;
}
function displayArray(arr){

  console.log(arr)
}
function main(){
  const array1 = getArray();
```
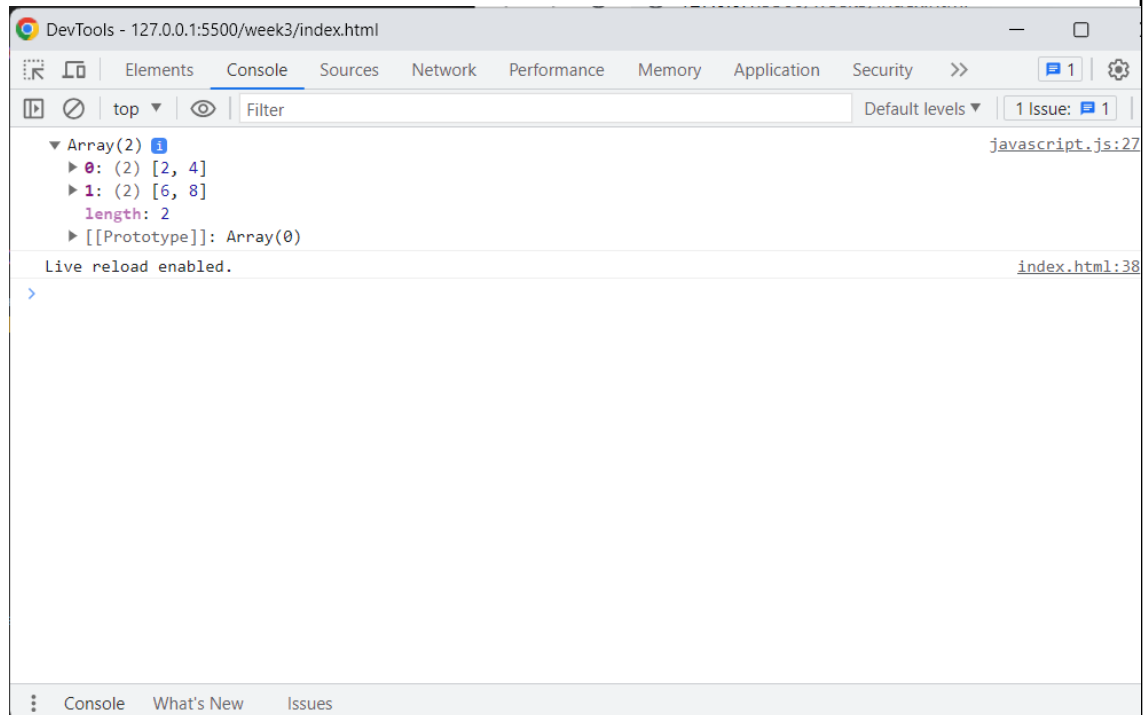
```
  const array2 = getArray();

  const sumArray = addArray(array1,array2);

  displayArray(sumArray);

}

main();
```


23. Write an object oriented program to store and display the values of a 2D array

    a. Program should contains 3 functions including the main function

main()

      1. Declare an array

      2. Call function getArray()

      3. Call function displayArray()

getArray()

1. Get values to the array

displayArray()

1. Display the array values

Eg:

Enter the size of array

3

Enter the array values

1	2	3
4	5	6
7	8	9

Array elements are:

1	2	3
4	5	6
7	8	9

Code of the program & screenshot of the output

```
class TwoDimensional {
  constructor() {
    this.array = [];
    this.size = 0;
  }
  getArray() {
```

```javascript
      this.size = parseInt(prompt('Enter the size of the array'));
     for (let i = 0; i < this.size; i++) {
        const rowArray = [];


        for (let j = 0; j < this.size; j++) {
          rowArray.push(parseInt(prompt('Enter the array values')));
         }
         this.array.push(rowArray);
      }
      return this.array;
    }
    displayArray(array) {
      console.log(array);
     }


  }
  function main(){
    const obj = new TwoDimensional();


   const array = obj.getArray();
   obj.displayArray(array)
  }
  main();
```
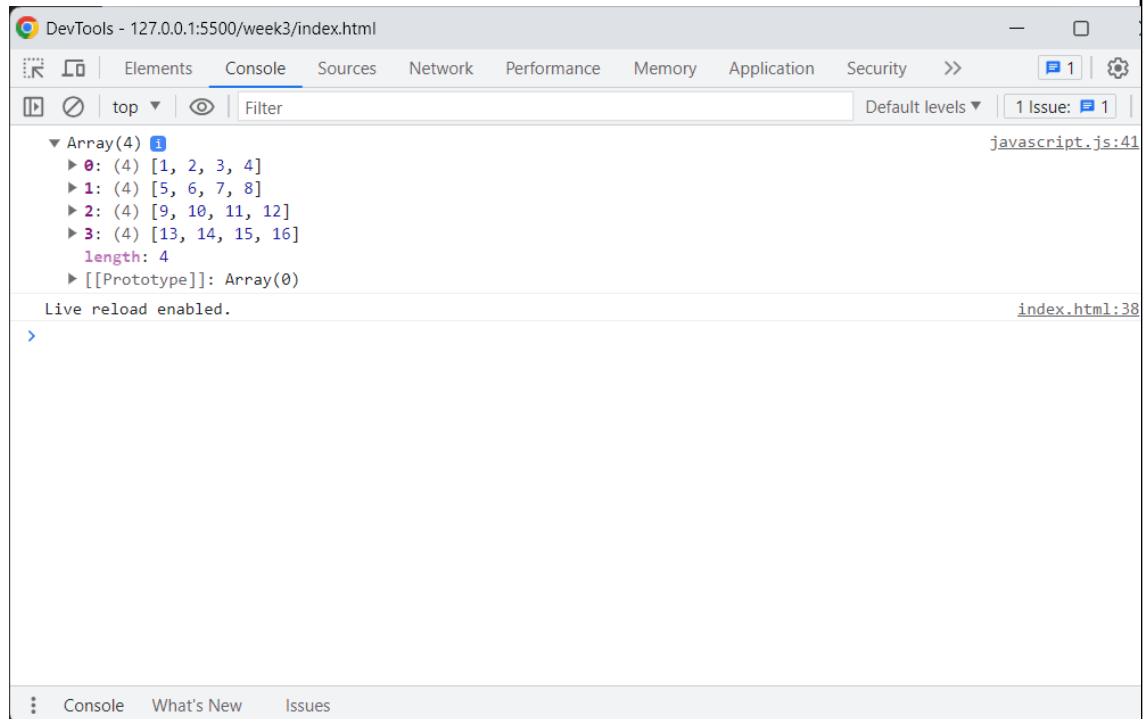
24. Write a menu driven program to calculate the area of a given object.

    a. Program should contain two classes

        i.   Class 1: MyClass

        ii.   Class 2: Area

    b. Class MyClass should inherit class Area and should contain the following functions

        i.   main()

        ii.   circle()

        iii.   square()

        iv.   rectangle()

        v.   triangle()

    c. Class Area should contain the following functions to calculate the area of different objects

        i.   circle()

        ii.   square()

      iii.   rectangle()

      iv.   triangle()

```
Class MyClass extends Area{

        public static void main(string args[]){

        }

        circle() {

        }

        square() {

        }

        rectangle() {

        }

        triangle() {

        }

}

Class Area{

        circle(){

        }

        square(){

        }
```

```
        rectangle() {

        }

        triangle() {

        }

}
```

Eg 1:

Enter your choice

1. Circle
2. Square
3. Rectangle
4. Triangle

2

Enter the length

2

Output

Area of the square is: 4

Eg 2:

Enter your choice

1. Circle
2. Square
3. Rectangle
4. Triangle

1

Enter the radius

3

Output

Area of the circle is: 28.26

Code of the program & screenshot of the output

```
class MyArea {
  circle(radius) {
    console.log(`area of the circle is ${Math.PI * radius * radius}`)
  }
  square(length) {
    console.log(`area of the square is ${length * length}`)
  }
  rectangle(height, width) {
    console.log(`area of the rectangle is ${height * width}`)
  }
  triangle(base, height) {
    console.log(`area of the triangle is ${(base * height) / 2}`)
  }
}
class Myclass extends MyArea {
  circle() {
```
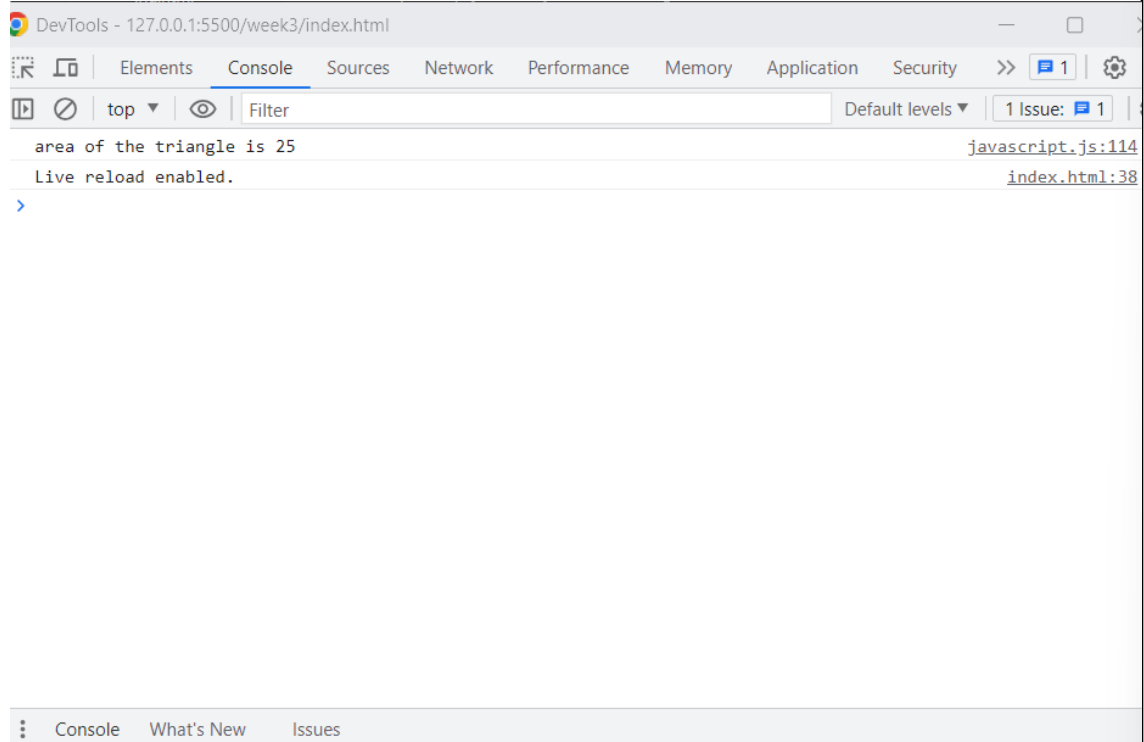
```javascript
    const radius = parseInt(prompt("Enter radius of circle"));
    super.circle(radius)
  }
  square() {
    const length = parseInt(prompt("Enter length of square"));
    super.square(length)
  }
  rectangle() {
    const height = parseInt(prompt("Enter height of rectangle"));
    const width = parseInt(prompt("Enter width of rectangle"))
    super.rectangle(height, width)
  }
  triangle() {
    const base = parseInt(prompt("Enter base of triangle"));
    const height = parseInt(prompt("Enter height of triangle"))
    super.triangle(base,height)
  }
  main() {
    const choice = parseInt(prompt("Enter your
      choice\n1:circle\n2:Square\n3:Rectangle\n4:Triangle"))
    switch (choice) {
     case 1:
       this.circle();
       break;
     case 2:
       this.square();
       break;
     case 3:
       this.rectangle();
       break;
```

```
        case 4:
          this.triangle();
          break;
        default:
          console.log("Please check your input")


    }
   }
 }
let myobj = new Myclass();
myobj.main();
```


25. Write a Javascript program to display the status (I.e. display book name, author name & reading status) of books. You are given an object library in the code's template. It

contains a list of books with the above mentioned properties.Your task is to display the following:

- If the book is unread:
  You still need to read '<book_name>' by <author_name>.
- If the book is read:
  Already read '<book_name>' by <author_name>.

```
var library = [

  {

    title: 'Bill Gates',

    author: 'The Road Ahead',

    readingStatus: true

  },

  {

    title: 'Steve Jobs',

    author: 'Walter Isaacson',

    readingStatus: true

  },

  {

    title: 'Mockingjay: The Final Book of The Hunger Games',

    author: 'Suzanne Collins',
```

```
        readingStatus: false

    }

];
```

Code of the program & screenshot of the output.

```javascript
var library = [{
  title:'Bill Gates',
  author:'The Road Ahead',
  readingStatus:true
},
{
  title:'Steve Jobs',
  author:'Walter Isaacson',
  readingStatus:true
},
{
  title:'Mockingjay:The Final Book of The Hunger Games',
  author:'Suzanne Collins',
  readingStatus:false
}
]
for(let i=0;i<library.length;i++){

  if(library[i].readingStatus){
    console.log(`Already read ${library[i].title} by ${library[i].author}`)
  }else{
    console.log(`You still need to read ${library[i].title} by ${library[i].author}`)
  }
```

```
    }
```


26. Given a variable named my_string, *try* reversing the string using my_string.split().reverse().join() and then print the reversed string to the console. If the *try* clause has an error, print the error message to the console. Finally, print the *typeof* of the my_string variable to the console.

Output format:

The statement to print in the *try*block is:

Reversed string is : ${my_string}

The statement to print in the *catch*block is:

Error : ${err.message}

The statement to print in the *finally* block is:

Type of my_string is : ${typeof my_string}

Eg:

a) Sample Input 0

"1234"

Sample Output 0

Reversed string is : 4321

Type of my_string is : string

b) Sample Input 1

Number(1234)

Sample Output 1
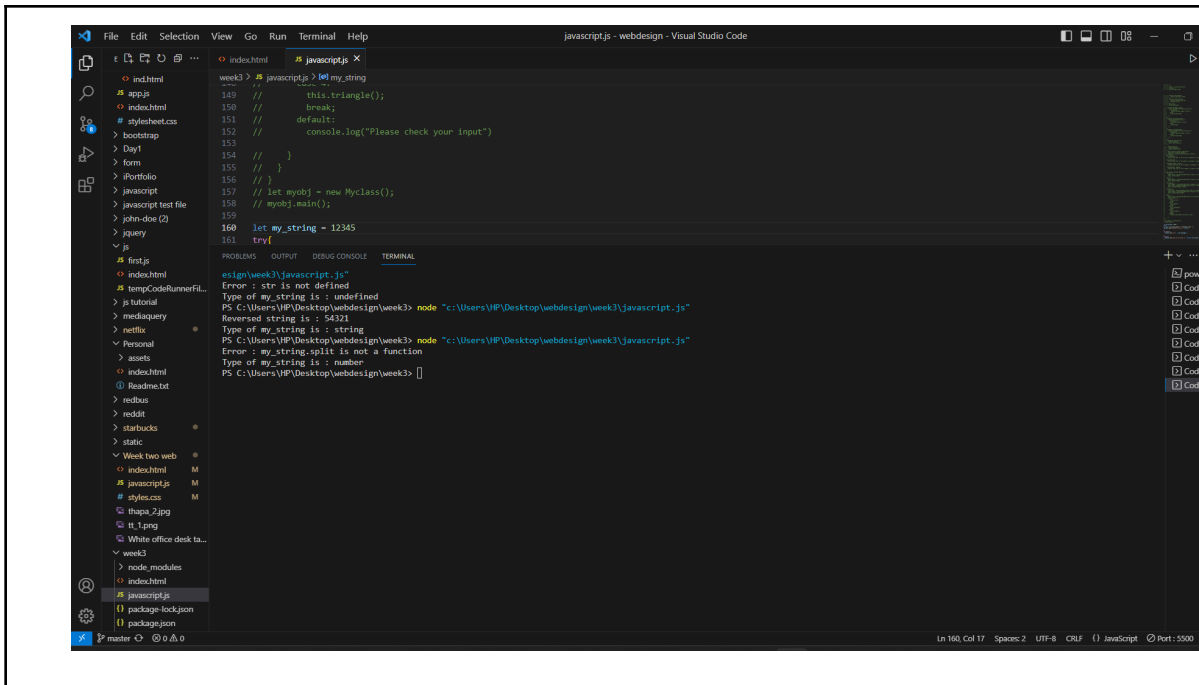
Error : my_string.split is not a function

Type of my_string is : number

Code of the program & screenshot of the output.

```javascript
let my_string = 12345
try{
let rev = my_string.split('').reverse().join('');
console.log(`Reversed string is : ${rev}`)


}
catch(err){
  console.log(`Error : ${err.message}`)


}
finally{
  console.log(`Type of my_string is : ${typeof my_string}`)
}
```

27. Given a variable named my_height, you must throw errors under the following conditions:

- notANumberError- When my_heightis NaN
- HugeHeightError – When my_heightis greater than
- TinyHeight Error - When my_heightis less than

Eg:

a) Sample Input 0

seven

Sample Output 0

notANumberError

b) Sample Input 1

77

Sample Output 1

hugeHeightError

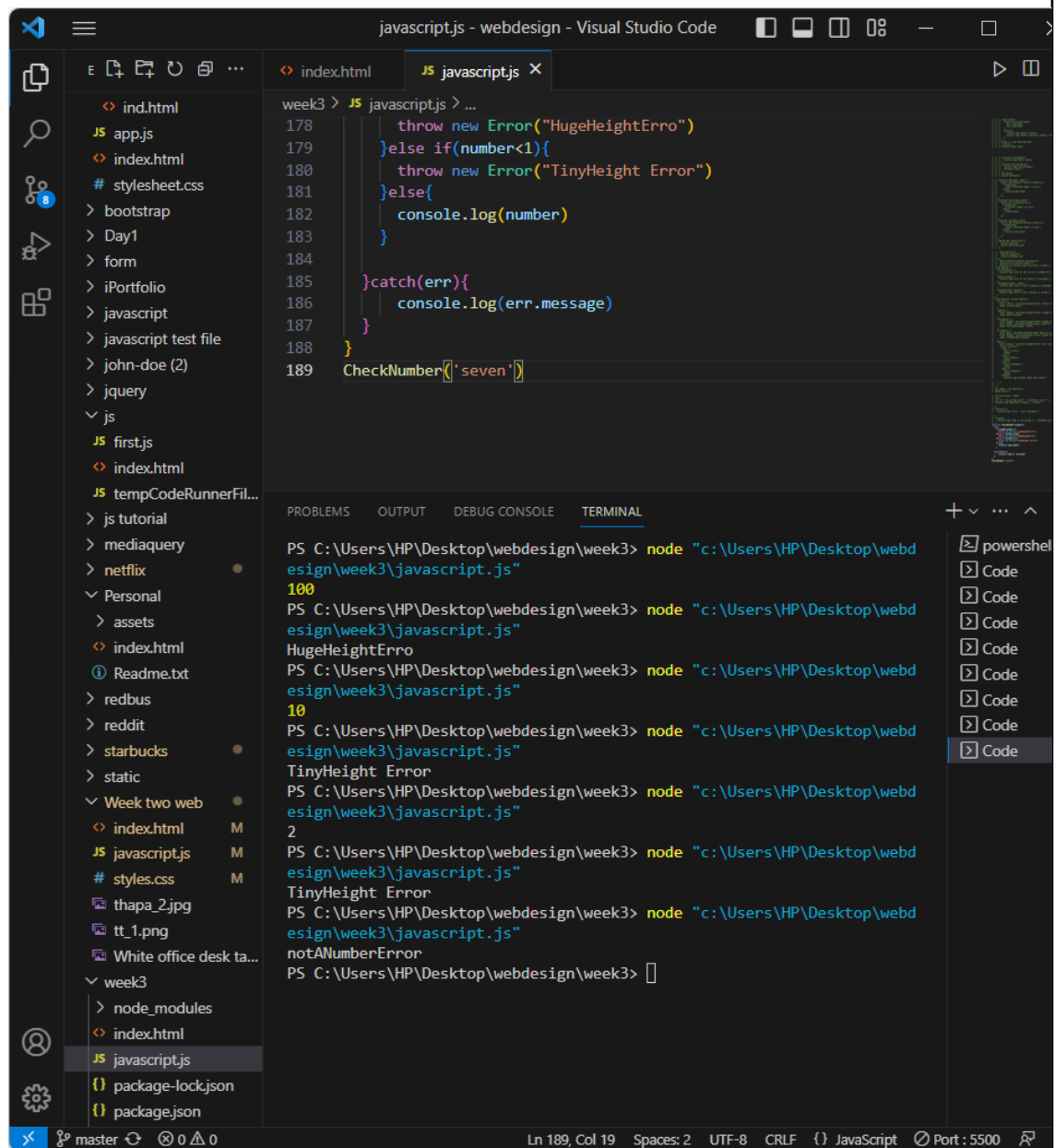**c) Sample Input 2**

0

Sample Output 2

tinyHeightError

d) Sample Input 3

8

Sample Output 3

8

Code of the program & screenshot of the output.

index.html   JS javascript.js ×

week3 > JS javascript.js > ...

```javascript
178         throw new Error("HugeHeightErro")
179     }else if(number<1){
180         throw new Error("TinyHeight Error")
181     }else{
182         console.log(number)
183     }
184
185     }catch(err){
186         console.log(err.message)
187     }
188 }
189 CheckNumber('seven')
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL

```
PS C:\Users\HP\Desktop\webdesign\week3> node "c:\Users\HP\Desktop\webd
esign\week3\javascript.js"
100
PS C:\Users\HP\Desktop\webdesign\week3> node "c:\Users\HP\Desktop\webd
esign\week3\javascript.js"
HugeHeightErro
PS C:\Users\HP\Desktop\webdesign\week3> node "c:\Users\HP\Desktop\webd
esign\week3\javascript.js"
10
PS C:\Users\HP\Desktop\webdesign\week3> node "c:\Users\HP\Desktop\webd
esign\week3\javascript.js"
TinyHeight Error
PS C:\Users\HP\Desktop\webdesign\week3> node "c:\Users\HP\Desktop\webd
esign\week3\javascript.js"
2
PS C:\Users\HP\Desktop\webdesign\week3> node "c:\Users\HP\Desktop\webd
esign\week3\javascript.js"
TinyHeight Error
PS C:\Users\HP\Desktop\webdesign\week3> node "c:\Users\HP\Desktop\webd
esign\week3\javascript.js"
notANumberError
PS C:\Users\HP\Desktop\webdesign\week3>
```

powershel
Code
Code
Code
Code
Code
Code
Code
Code

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```javascript
function CheckNumber(number){
  try{
    if(isNaN(number)){
      throw new Error('notANumberError')
    }else if(number>100){
      throw new Error("HugeHeightErro")
    }else if(number<1){
      throw new Error("TinyHeight Error")
    }else{
```
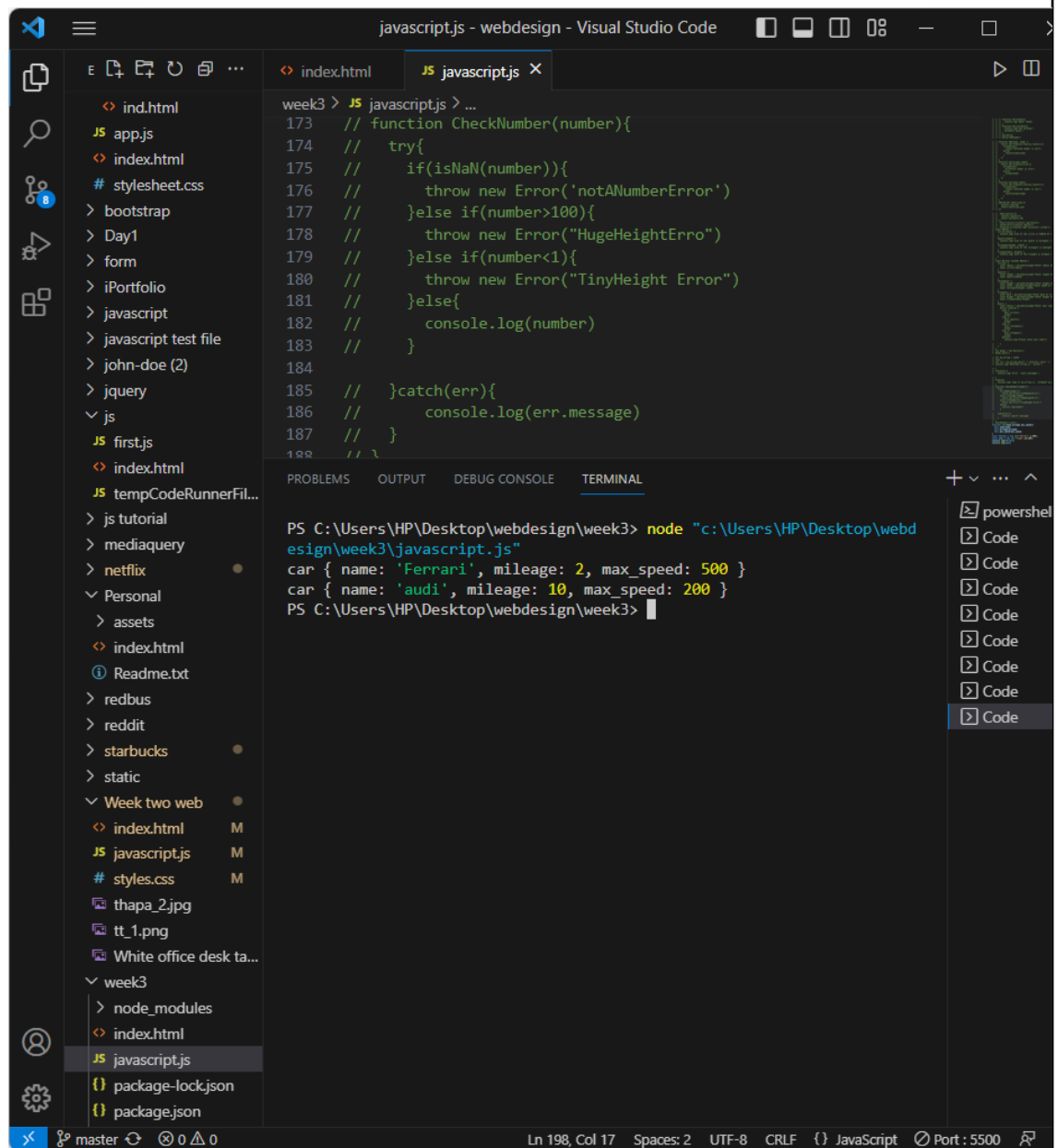
```
        console.log(number)
    }

    }catch(err){
        console.log(err.message)
    }
}
CheckNumber('seven')
```

28. Create a constructor function that satisfies the following conditions:

      a.   The name of the constructor function should be *Car*.

      b.   It should take three parameters: *name, mileage* and *max_speed*.

      c.   Store these parameter values in their respective *this*keywords: *this.name, this.mileage* and *this.max_speed*.

Code of the program & screenshot of the output.

```
week3 > JS javascript.js > ...
173    // function CheckNumber(number){
174    //   try{
175    //     if(isNaN(number)){
176    //       throw new Error('notANumberError')
177    //     }else if(number>100){
178    //       throw new Error("HugeHeightErro")
179    //     }else if(number<1){
180    //       throw new Error("TinyHeight Error")
181    //     }else{
182    //       console.log(number)
183    //     }
184
185    //   }catch(err){
186    //     console.log(err.message)
187    //   }
188    // }
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**

```
PS C:\Users\HP\Desktop\webdesign\week3> node "c:\Users\HP\Desktop\webd
esign\week3\javascript.js"
car { name: 'Ferrari', mileage: 2, max_speed: 500 }
car { name: 'audi', mileage: 10, max_speed: 200 }
PS C:\Users\HP\Desktop\webdesign\week3>
```

Ln 198, Col 17   Spaces: 2   UTF-8   CRLF   {} JavaScript   Ø Port : 5500

```javascript
function car(name,mileage,max_speed){
  this.name=name;
  this.mileage=mileage;
  this.max_speed=max_speed;
}
const ferrari = new car('Ferrari',2,500);
const audi = new car ("audi",10,200);
console.log(ferrari)
console.log(audi)
```

29. Write a myFilter function that takes 2 parameters: myArray and callback. Here, myArray is an array of numbers and callback is a function that takes the elements of myArray as its parameter and returns a boolean true if the sum of the number is even or false if the sum of the number is odd.

The myFilter function should return the sum of the array.

   a) Sample Input

  12345

   b) Sample Output

  15

Code of the program & screenshot of the output.

```
function myFilter(myArray,callback){
 return callback(myArray)


}
function arrayF(array){
  let sum=0;
  for(let i=0;i<array.length;i++){
    sum= array[i]+sum;
  }
  if(sum%2==0){
    return true;
  }else{
    return false;
  }
}
const array=[1,2,3,4,5,3]
const b=myFilter(array,arrayF)
```

```
console.log(b)
```