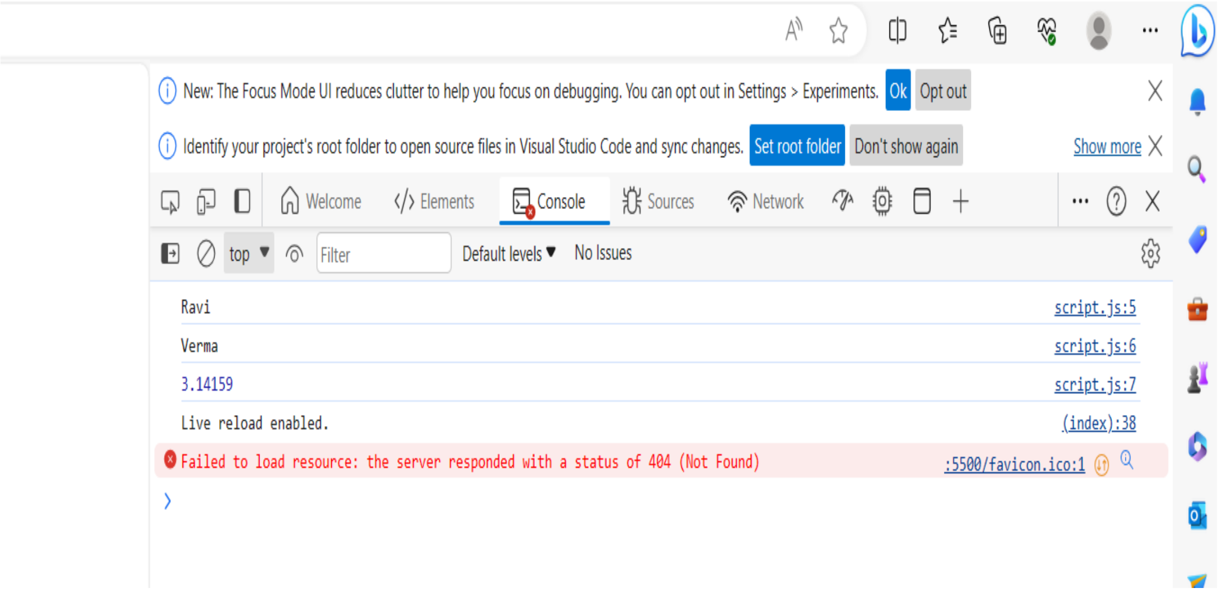
JEEVAN S

1.Variables

```
let firstName = "Ravi";

let lastName = "Verma";

const PI = 3.14159;

console.log(firstName);

console.log(lastName);

console.log(PI);
```



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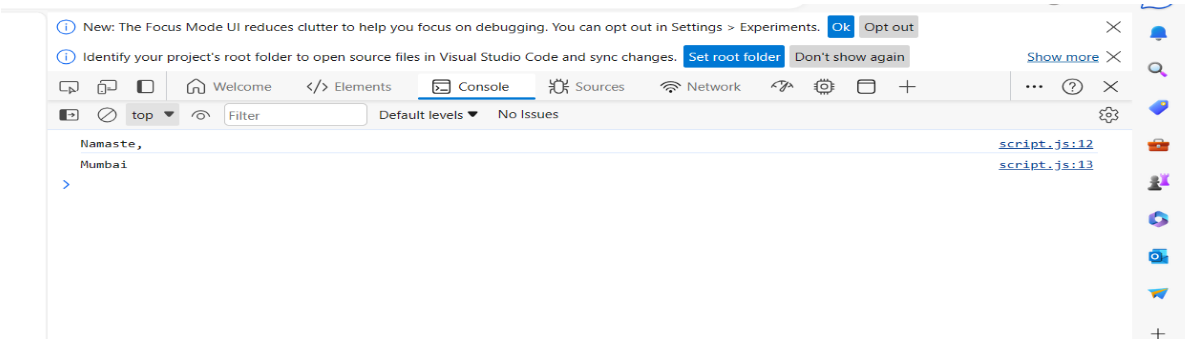
```
Ravi                                                                   script.js:5
Verma                                                                  script.js:6
3.14159                                                                script.js:7
Live reload enabled.                                                   (index):38
Failed to load resource: the server responded with a status of 404 (Not Found)   :5500/favicon.ico:1
>
```

```
let greeting = "Namaste,";

let city = "Mumbai";

console.log(greeting);

console.log(city);
```



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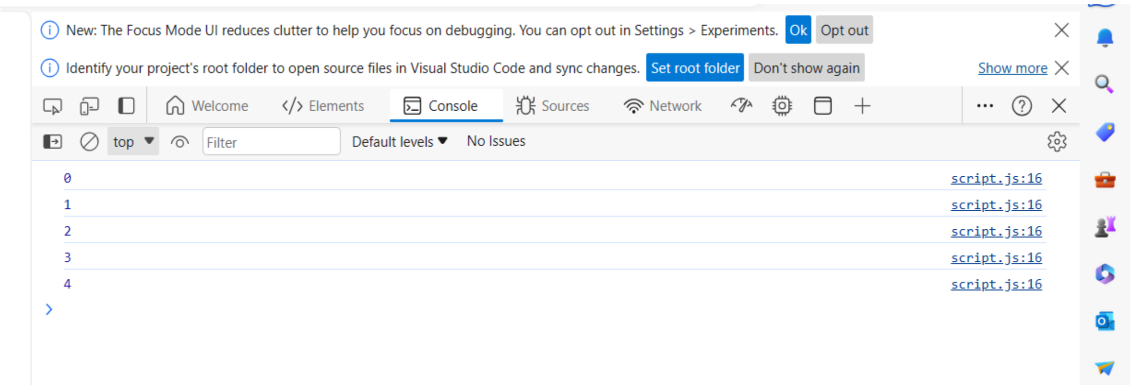
```
Namaste,                                                               script.js:12
Mumbai                                                                 script.js:13
>
```

2.LOOPS

1.for loop

```
for (let i = 0; i < 5; i++) {
  console.log(i);
}
```



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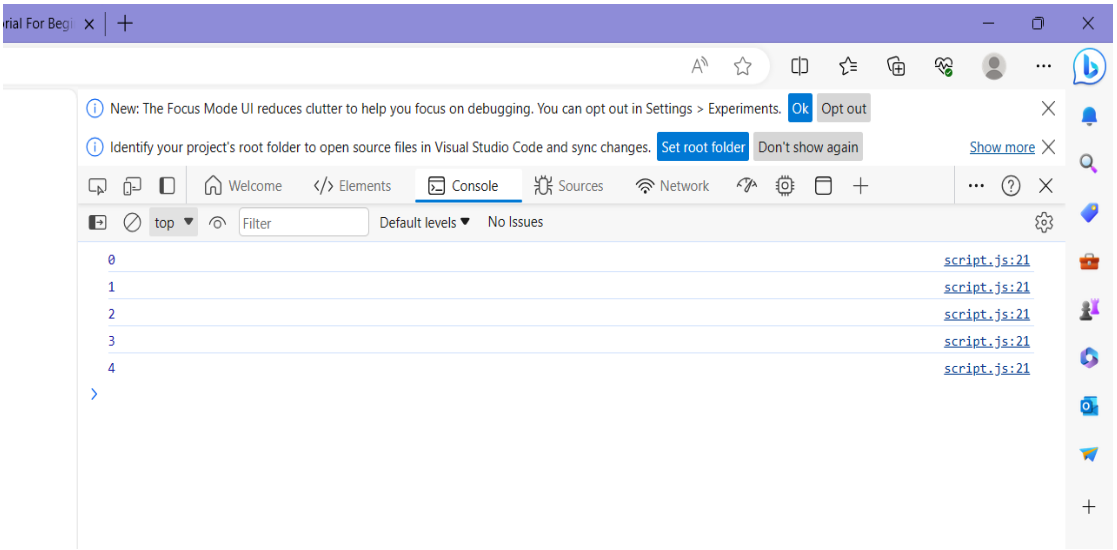
```
0                                                      script.js:16
1                                                      script.js:16
2                                                      script.js:16
3                                                      script.js:16
4                                                      script.js:16
>
```

2.while loop

```
let i = 0;
while (i < 5) {
  console.log(i);
  i++;
}
```



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```
0                                                      script.js:21
1                                                      script.js:21
2                                                      script.js:21
3                                                      script.js:21
4                                                      script.js:21
>
```

3.do while loop

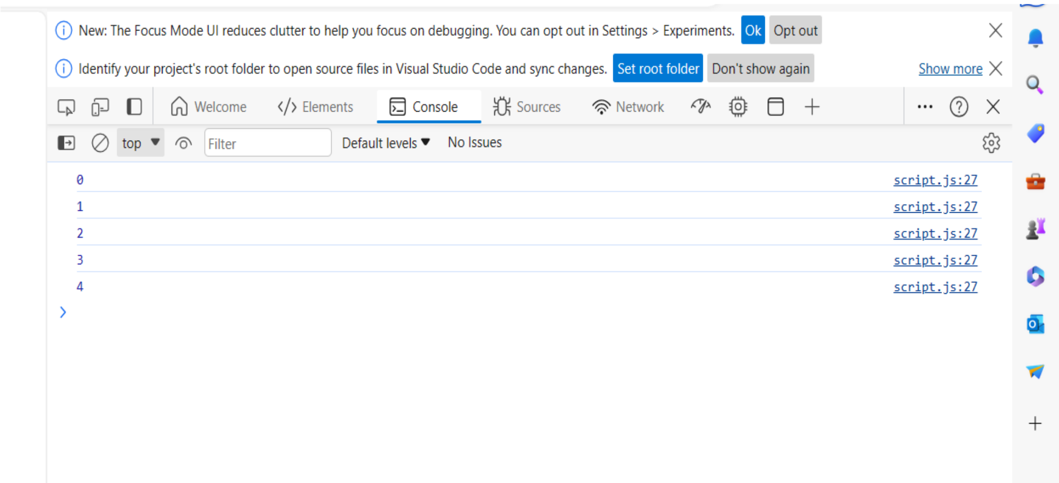
```
let i = 0;

do {

  console.log(i);

  i++;

} while (i < 5);
```



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```
0                                   script.js:27
1                                   script.js:27
2                                   script.js:27
3                                   script.js:27
4                                   script.js:27
>
```

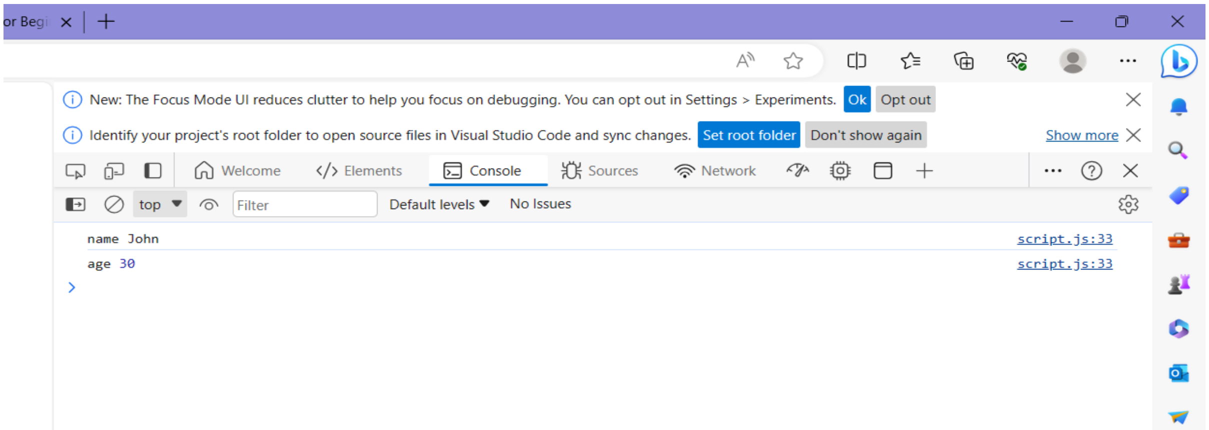
4.for in loop

```
const person = { name: "John", age: 30 };

for (let key in person) {

  console.log(key, person[key]);

}
```



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```
name John                           script.js:33
age 30                              script.js:33
>
```

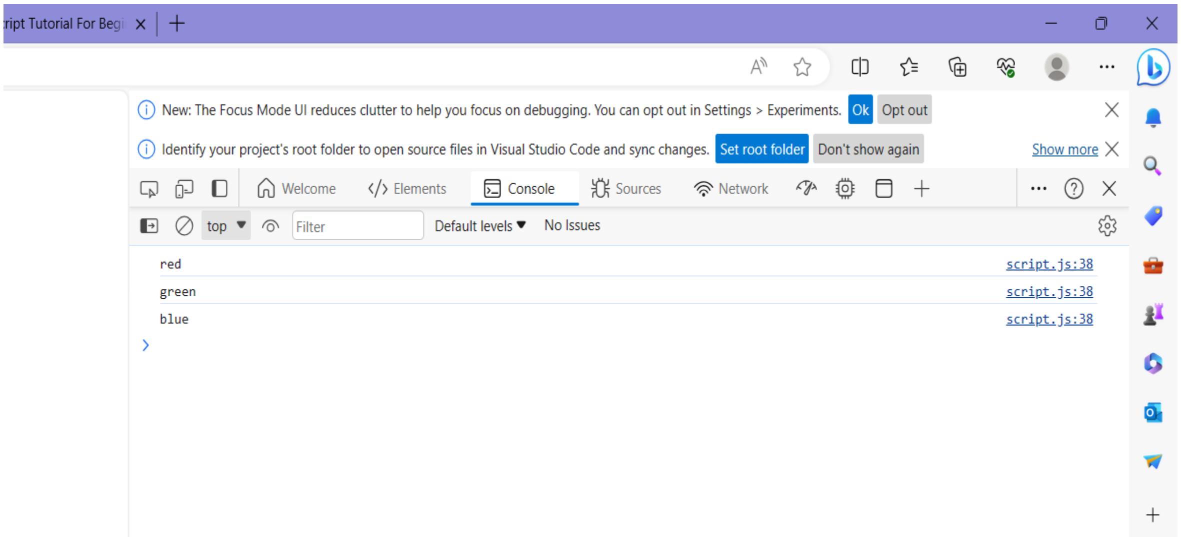
5.for of loop

```
const colors = ["red", "green", "blue"];

for (let color of colors) {

  console.log(color);

}
```



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```
red                                                    script.js:38
green                                                  script.js:38
blue                                                   script.js:38
```

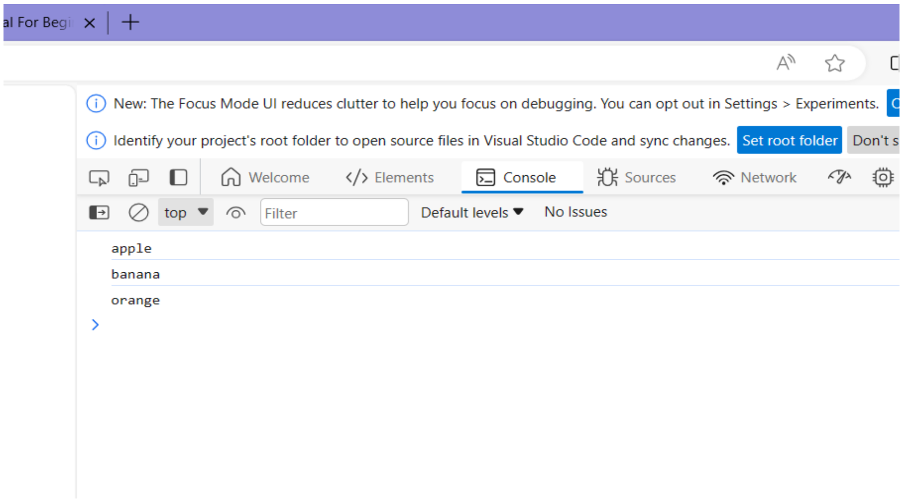
6.for each loop

```
const fruits = ["apple", "banana", "orange"];

fruits.forEach(function (fruit) {

  console.log(fruit);

});
```



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Welcome
Elements
Console
Sources
Network
top
Filter
Default levels
No Issues

```
apple
banana
orange
```

3.CONDITIONAL STATEMENTS

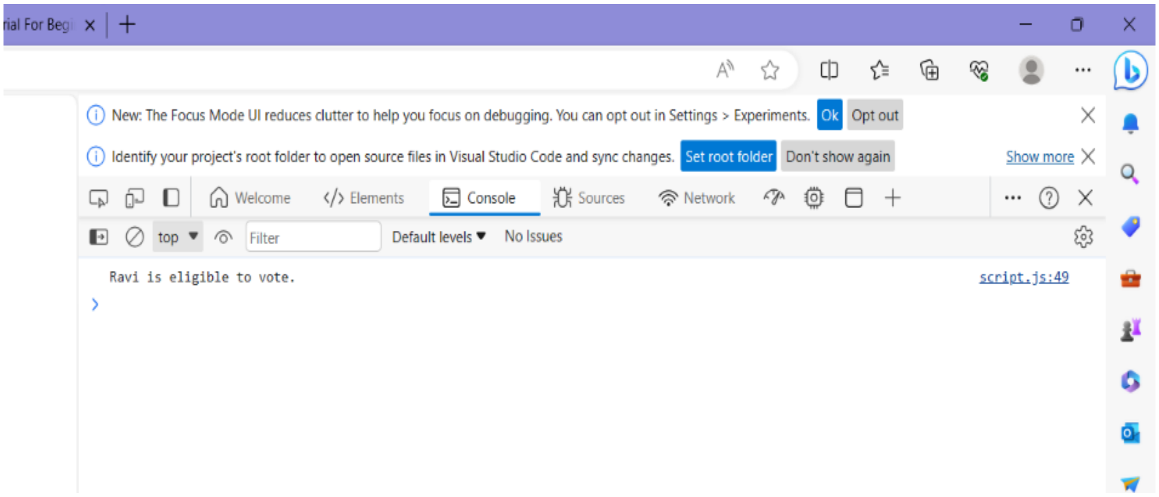
1.IF STATEMENT

```
let age = 25;

if (age >= 18) {

  console.log("Ravi is eligible to vote.");

}
```



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Show more
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Sources
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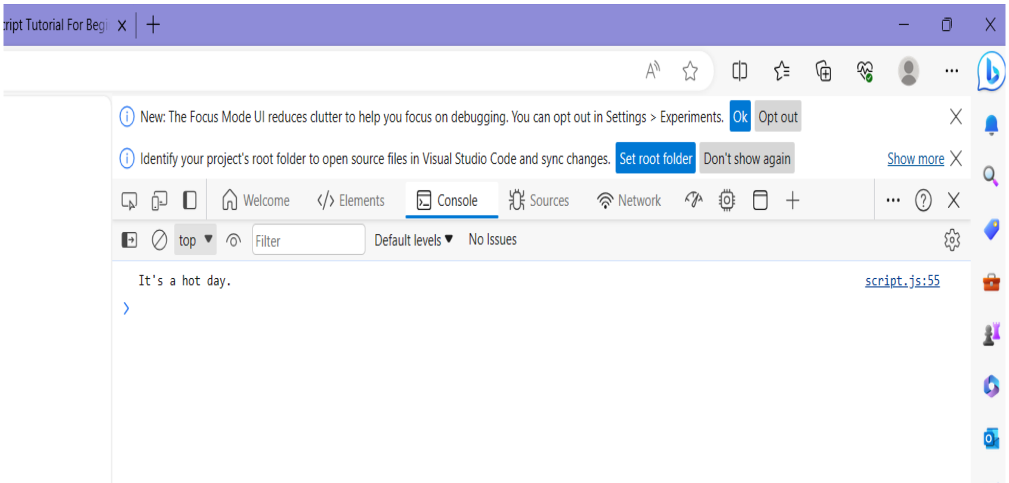
Filter
Default levels
No Issues
script.js:49

```
Ravi is eligible to vote.
```

2.IF ELSE

```
let temperature = 30;

if (temperature >= 30) {

  console.log("It's a hot day.");

} else {

  console.log("It's not so hot.");

}
```



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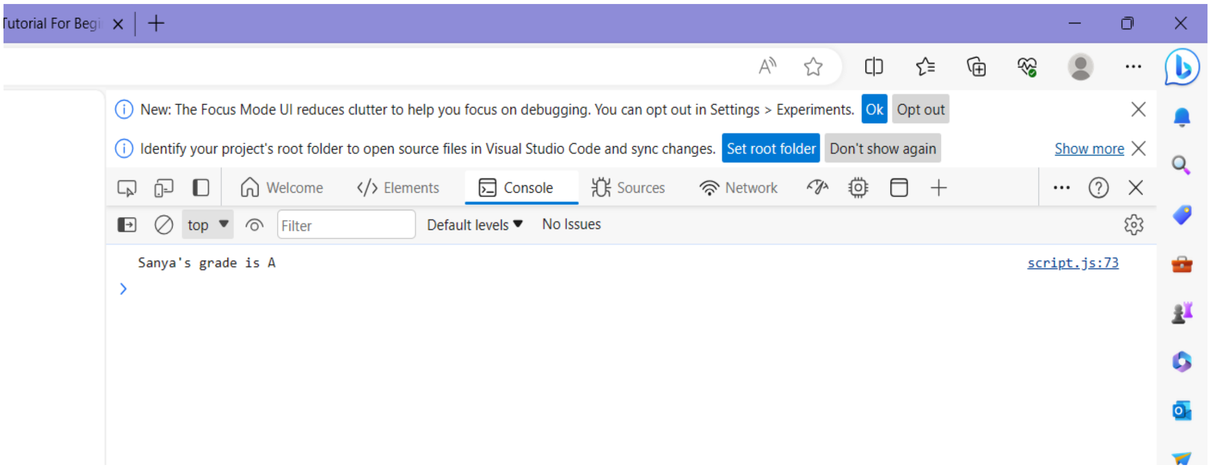
```
It's a hot day.                                                    script.js:55
>
```

3.IF ELSE LADDER

```
let marks = 85;

let grade;

if (marks >= 90) {

  grade = "A+";

} else if (marks >= 80) {

  grade = "A";

} else if (marks >= 70) {

  grade = "B";

} else {

  grade = "C";
}

console.log(`Sanya's grade is ${grade}`);
```



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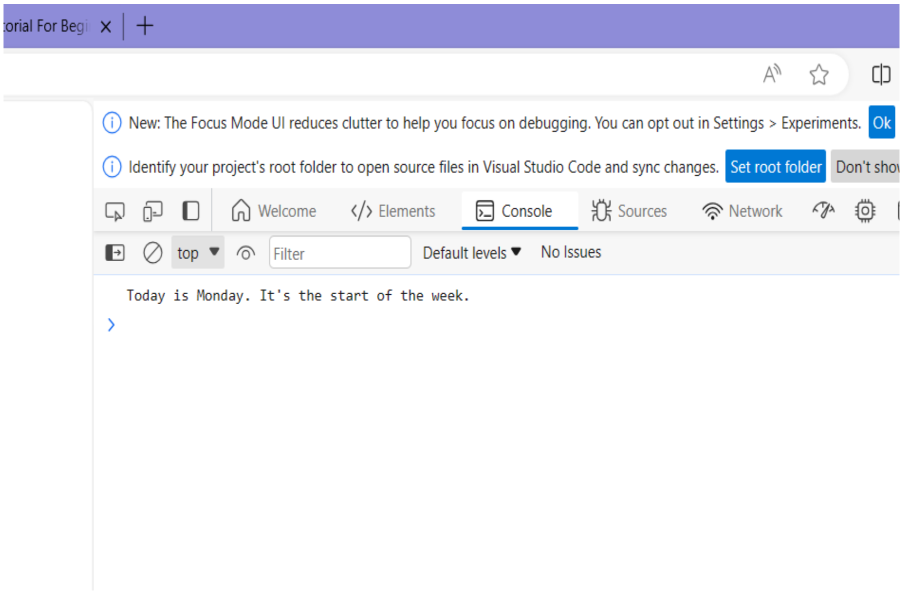
```
Sanya's grade is A                                                   script.js:73
```

4.SWITCH

```
let day = "Monday";

let message;

switch (day) {

  case "Monday":

    message = "It's the start of the week.";

    break;

  case "Saturday":

  case "Sunday":

    message = "It's the weekend!";

    break;

  default:

    message = "It's a weekday.";

}

console.log(`Today is ${day}. ${message}`);
```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```
Today is Monday. It's the start of the week.
```

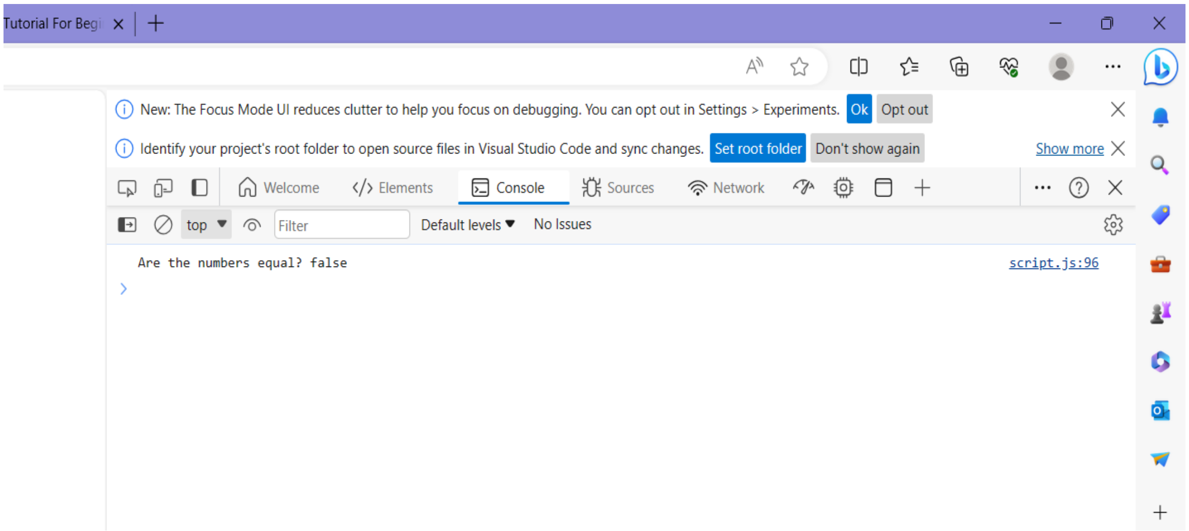
5.STRICT COMPARITION

let num1 = 5;

let num2 = 7;

let isEqual = num1 === num2;

console.log(`Are the numbers equal? ${isEqual}`);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Console
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Default levels
No Issues
script.js:96

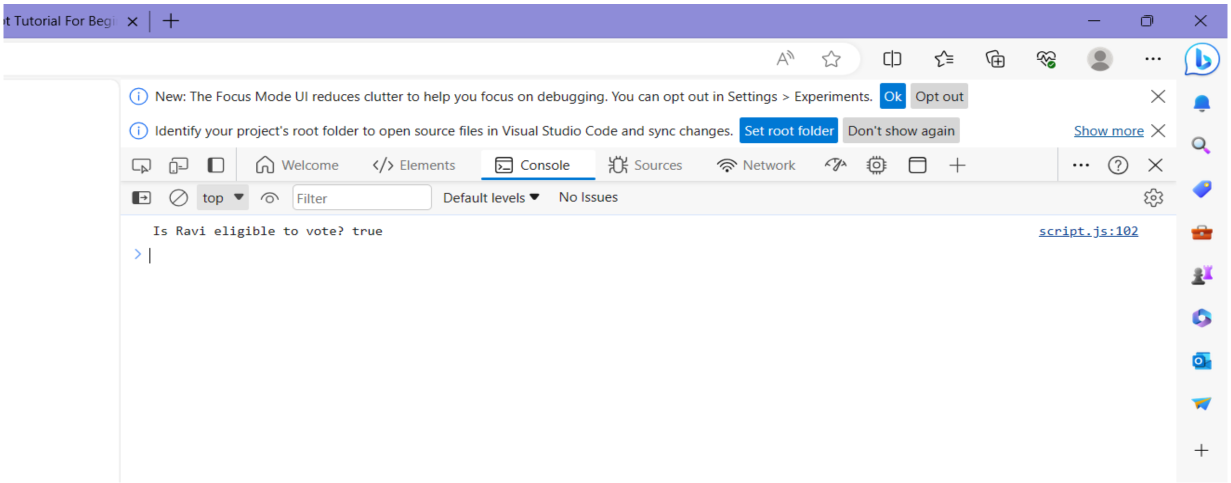
```
Are the numbers equal? false
```

let age = 25;

let votingAge = 18;

let isEligibleToVote = age >= votingAge;

console.log(`Is Ravi eligible to vote? ${isEligibleToVote}`);



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Welcome
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Default levels
No Issues
script.js:102

```
Is Ravi eligible to vote? true
```

7.ARITHMETIC OPERATORS

let x = 10;

let y = 5;

let sum = x + y;

let difference = x - y;

let product = x * y;

let quotient = x / y;

let remainder = x % y;

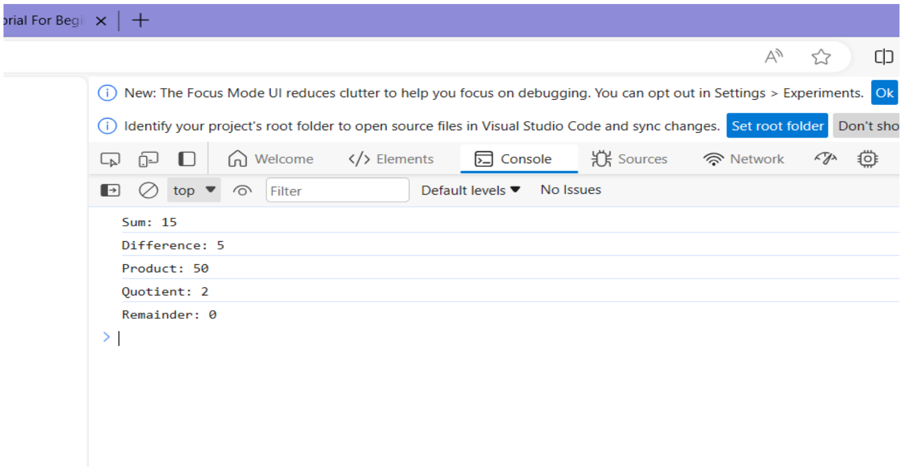
console.log(`Sum: ${sum}`);

console.log(`Difference: ${difference}`);

console.log(`Product: ${product}`);

console.log(`Quotient: ${quotient}`);

console.log(`Remainder: ${remainder}`);



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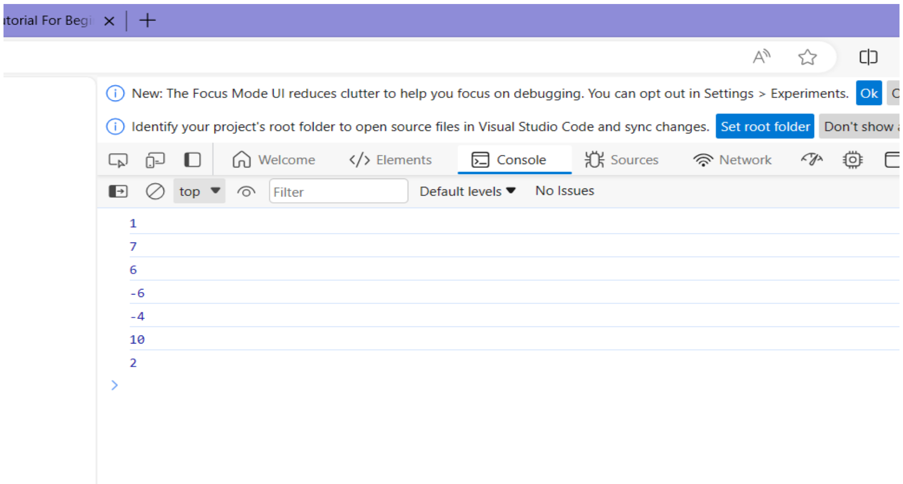
```
Sum: 15
Difference: 5
Product: 50
Quotient: 2
Remainder: 0
```

8.BITWISE OPERATORS

```
let num1 = 5;

let num2 = 3;

let bitwiseAND = num1 & num2;

let bitwiseOR = num1 | num2;

let bitwiseXOR = num1 ^ num2;

let bitwiseNOT1 = ~num1;

let bitwiseNOT2 = ~num2;

let leftShift = num1 << 1;

let rightShift = num1 >> 1;

console.log(bitwiseAND);

console.log(bitwiseOR);

console.log(bitwiseXOR);

console.log(bitwiseNOT1);

console.log(bitwiseNOT2);

console.log(leftShift);

console.log(rightShift);
```



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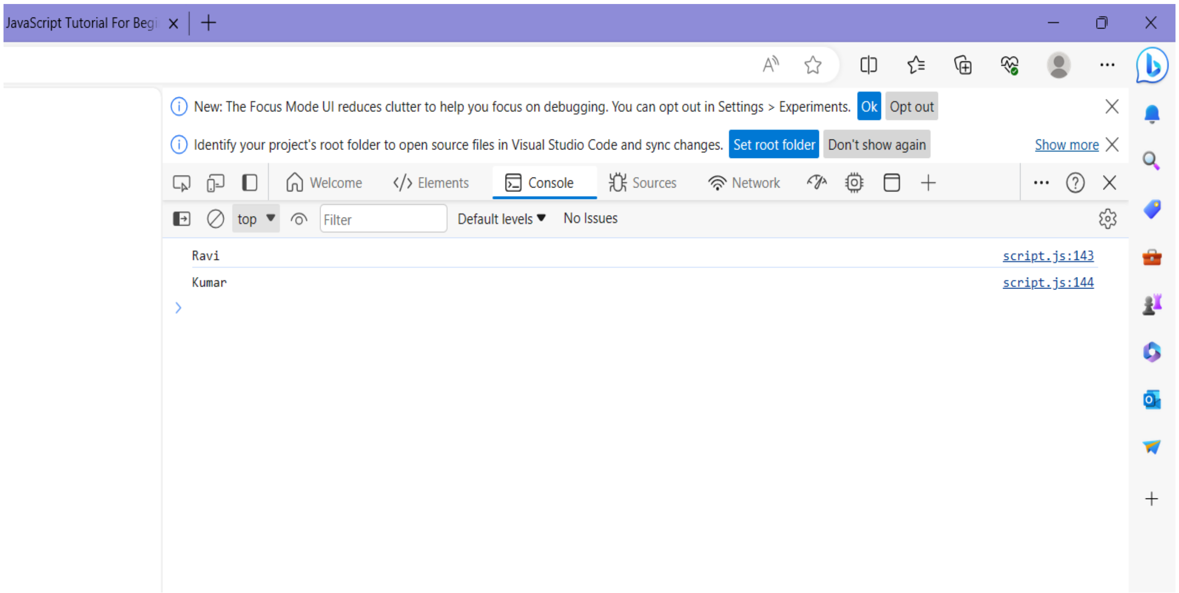
```
1
7
6
-6
-4
10
2
```

9.OBJECTS

```
let person = {
  firstName: "Ravi",
  lastName: "Kumar",
  age: 25,
};
console.log(person.firstName);
console.log(person["lastName"]);
```



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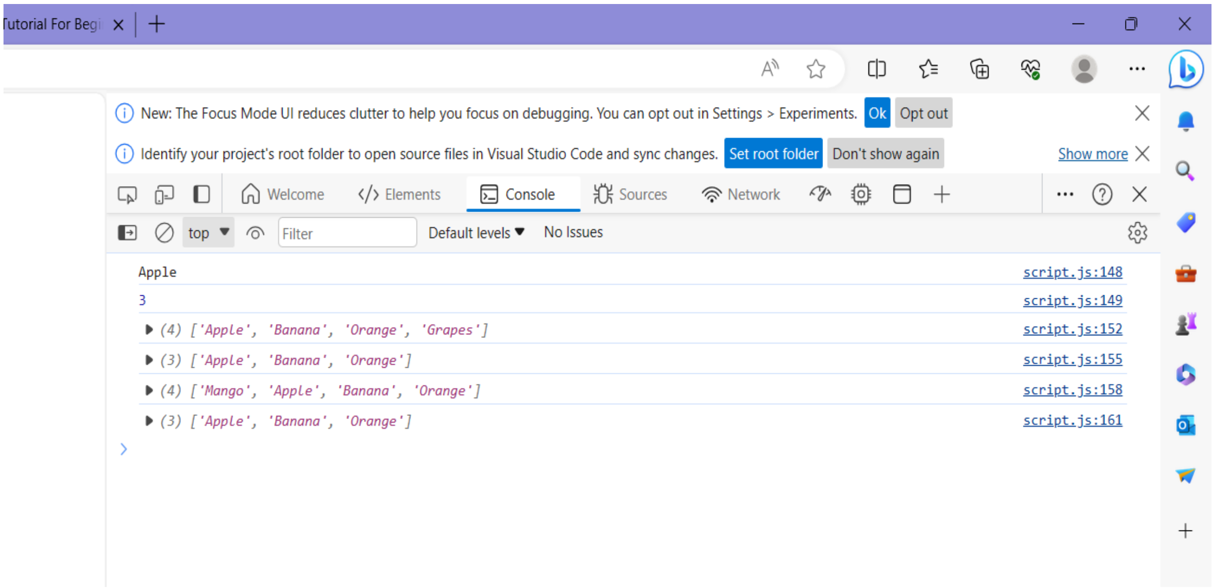
```
Ravi                                                    script.js:143
Kumar                                                   script.js:144
```

10.ARRAY OPERATIONS

```
let fruits = ["Apple", "Banana", "Orange"];

console.log(fruits[0]);

console.log(fruits.length);

fruits.push("Grapes");

console.log(fruits);

fruits.pop();

console.log(fruits);

fruits.unshift("Mango");

console.log(fruits);

fruits.shift();

console.log(fruits);
```



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```
Apple                                                   script.js:148
3                                                       script.js:149
▶ (4) ['Apple', 'Banana', 'Orange', 'Grapes']           script.js:152
▶ (3) ['Apple', 'Banana', 'Orange']                     script.js:155
▶ (4) ['Mango', 'Apple', 'Banana', 'Orange']            script.js:158
▶ (3) ['Apple', 'Banana', 'Orange']                     script.js:161
>
```

11.FUNCTIONS

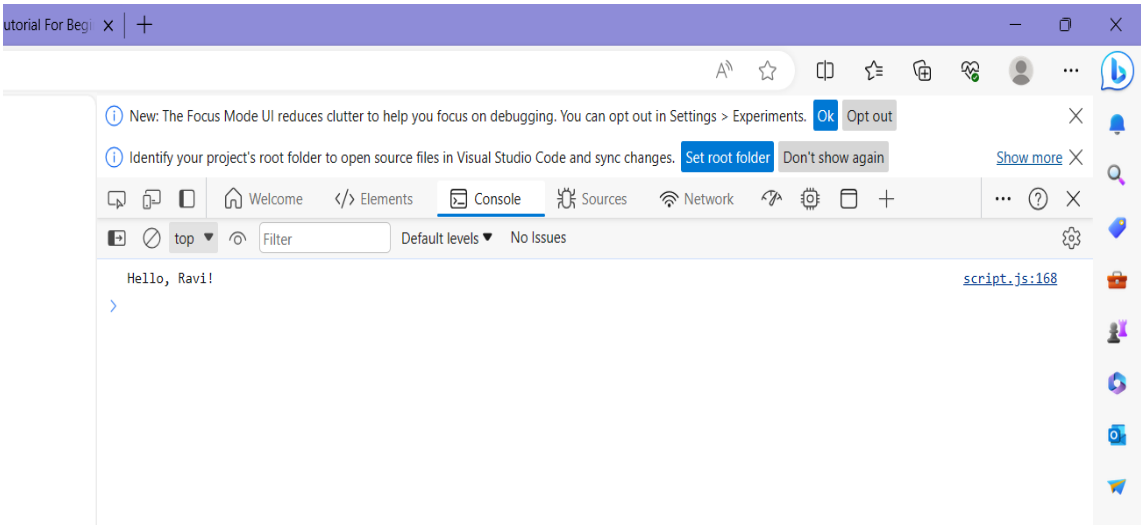
```
function greet(name) {

  return `Hello, ${name}!`;
```

}

let greeting = greet("Ravi");

console.log(greeting);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Default levels
No Issues

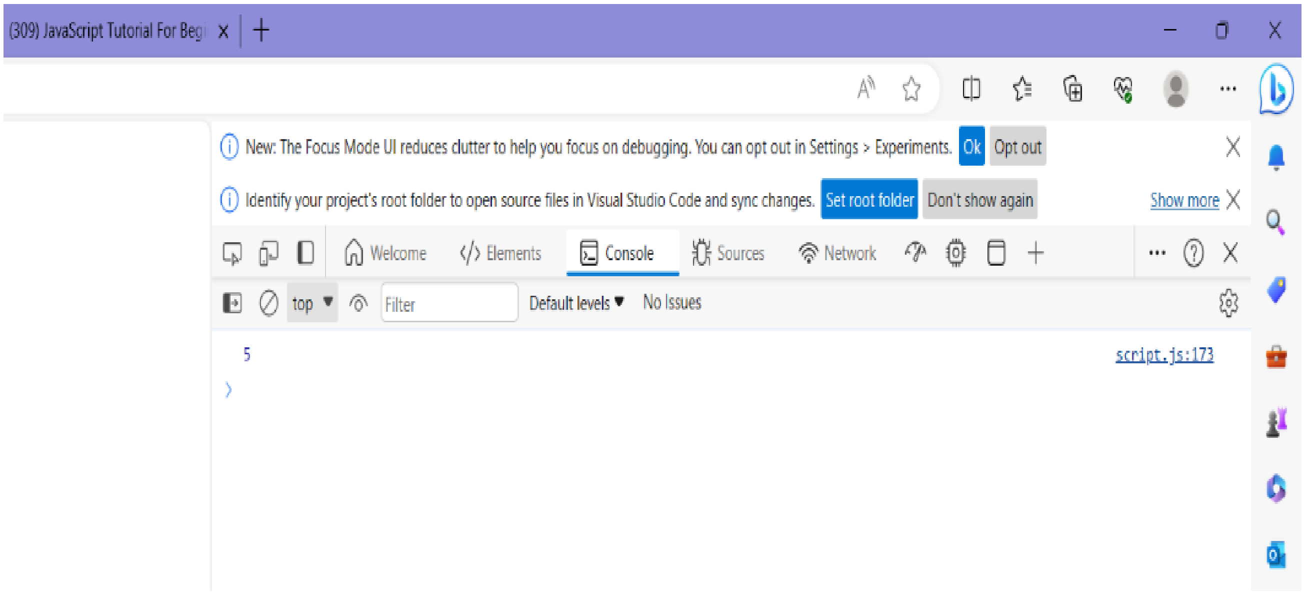
```
Hello, Ravi!                                                        script.js:168
```

12.ARROW FUNCTIONS

let divide = (x, y) => x / y;

let result = divide(10, 2);

console.log(result);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Welcome
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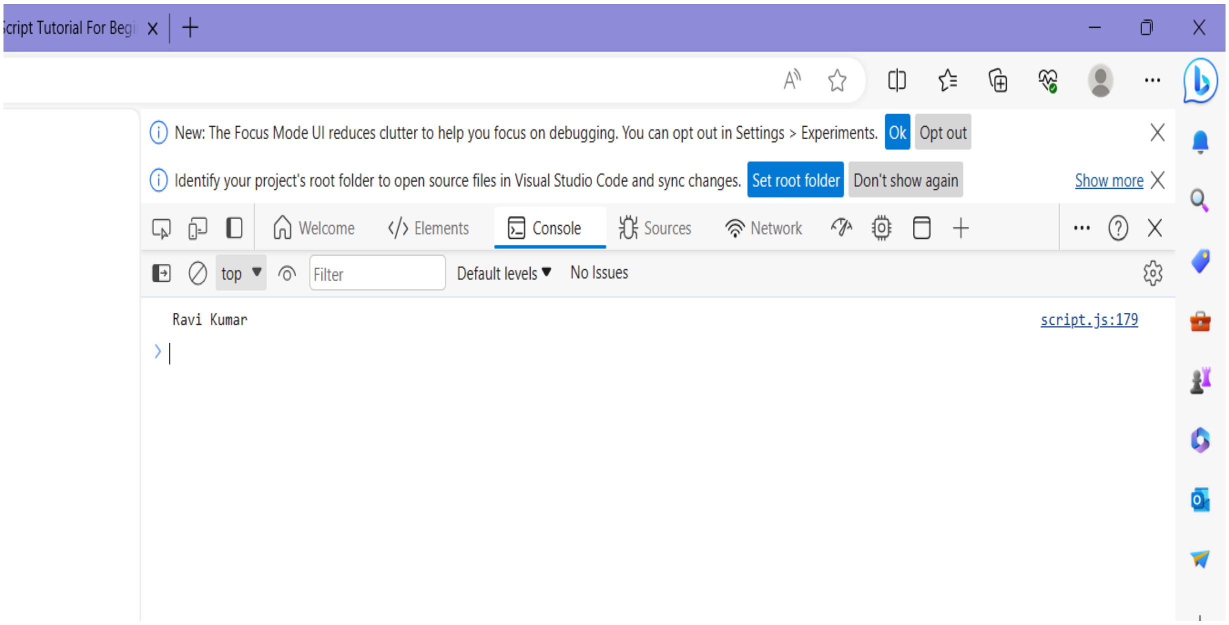
top
Filter
Default levels
No Issues

```
5                                                                   script.js:173
```

```
let person = {
  firstName: "Ravi",
  lastName: "Kumar",
  fullName: function () {
    console.log(this.firstName + " " + this.lastName);
  },
};
person.fullName();
```



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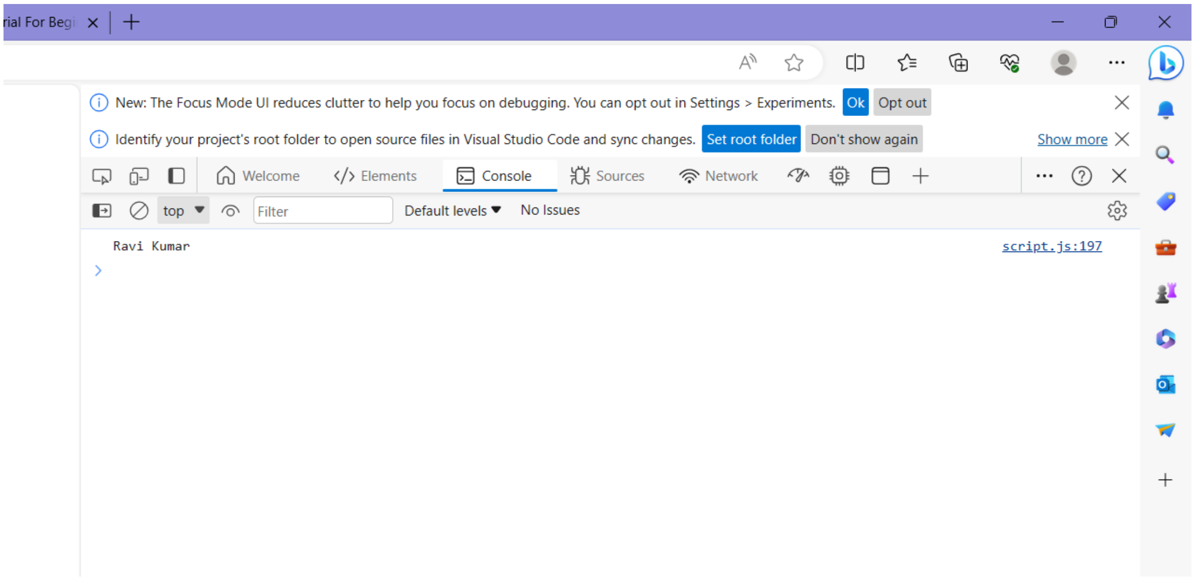
```
Ravi Kumar                                                        script.js:179
>
```

13.CLASSES AND INHERITANCE

1.

```
class Person {
  constructor(firstName, lastName) {
    this.firstName = firstName;
    this.lastName = lastName;
  }
  getFullName() {
    return `${this.firstName} ${this.lastName}`;
  }
}


let person1 = new Person("Ravi", "Kumar");
console.log(person1.getFullName());
```



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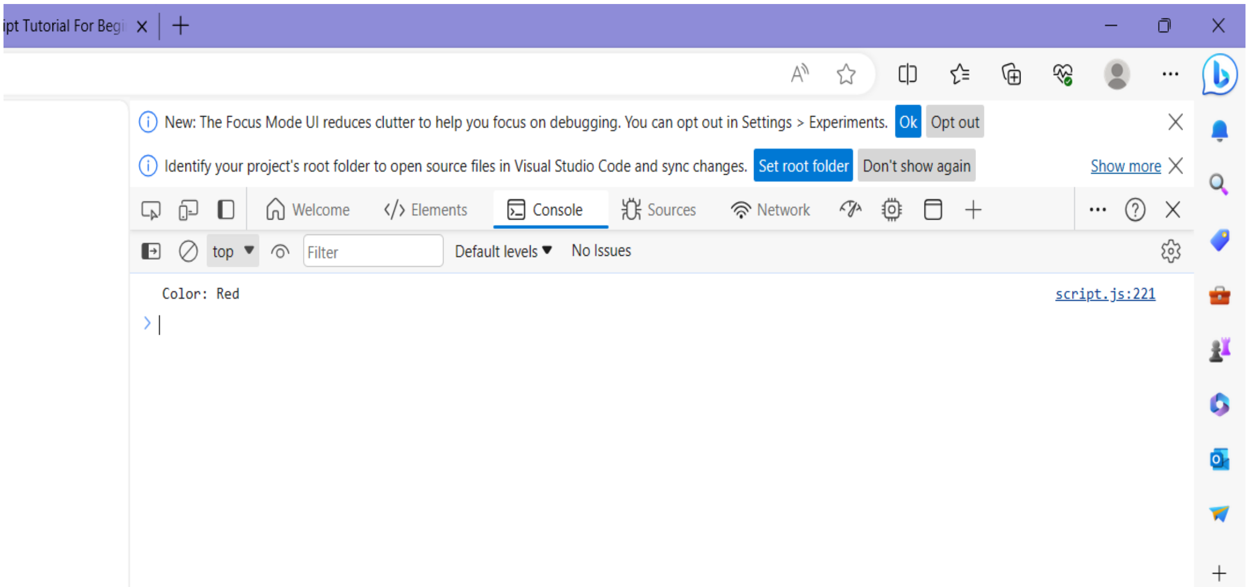
```
Ravi Kumar                                                    script.js:197
```

2.

```
class Shape {
  constructor(color) {
    this.color = color;
  }


  getColor() {
    return this.color;
  }
}
class Circle extends Shape {
 constructor(color, radius) {
   super(color);
   this.radius = radius;
 }
}

let circle1 = new Circle("Red", 5);
console.log(`Color: ${circle1.getColor()}`);
```



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Show more
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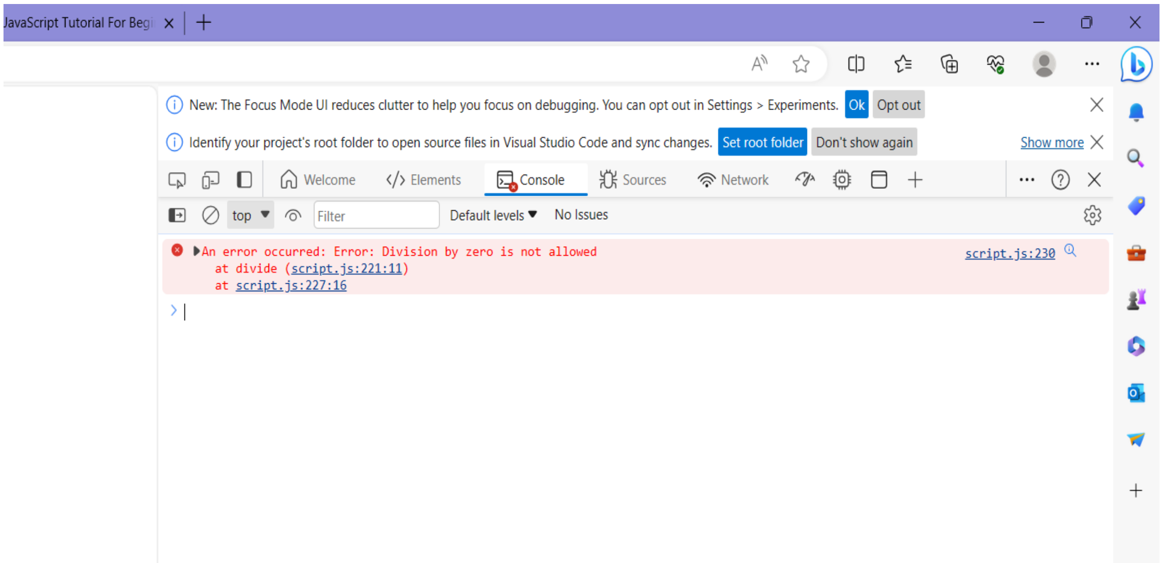
Filter
Default levels
No Issues

```
Color: Red                                                   script.js:221
```

14.EXCEPTION HANDLING

```
function divide(x, y) {
 if (y === 0) {
   throw new Error("Division by zero is not allowed");
 }
 return x / y;
}
```

```
try {
  let result = divide(10, 0);
  console.log(result);
} catch (error) {
  console.error("An error occurred:", error);
}
```



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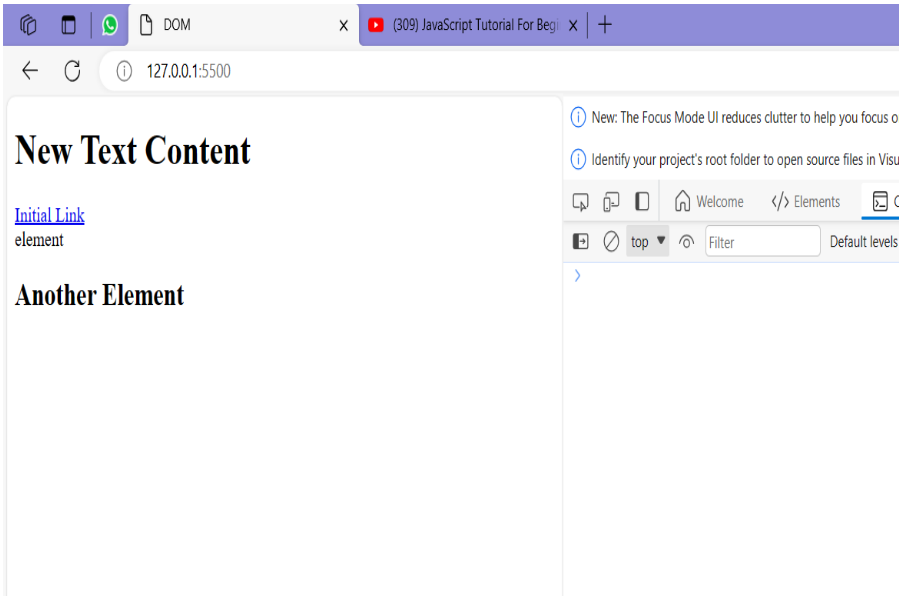
```
▶An error occurred: Error: Division by zero is not allowed          script.js:230
    at divide (script.js:221:11)
    at script.js:227:16
```

15.DOM MANIPULATION

1.

```
let elementById = document.getElementById("myElement");
elementById.textContent = "New Text Content";
```


DOM
(309) JavaScript Tutorial For Begi
127.0.0.1:5500
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Welcome
Elements
top
Filter
Default levels

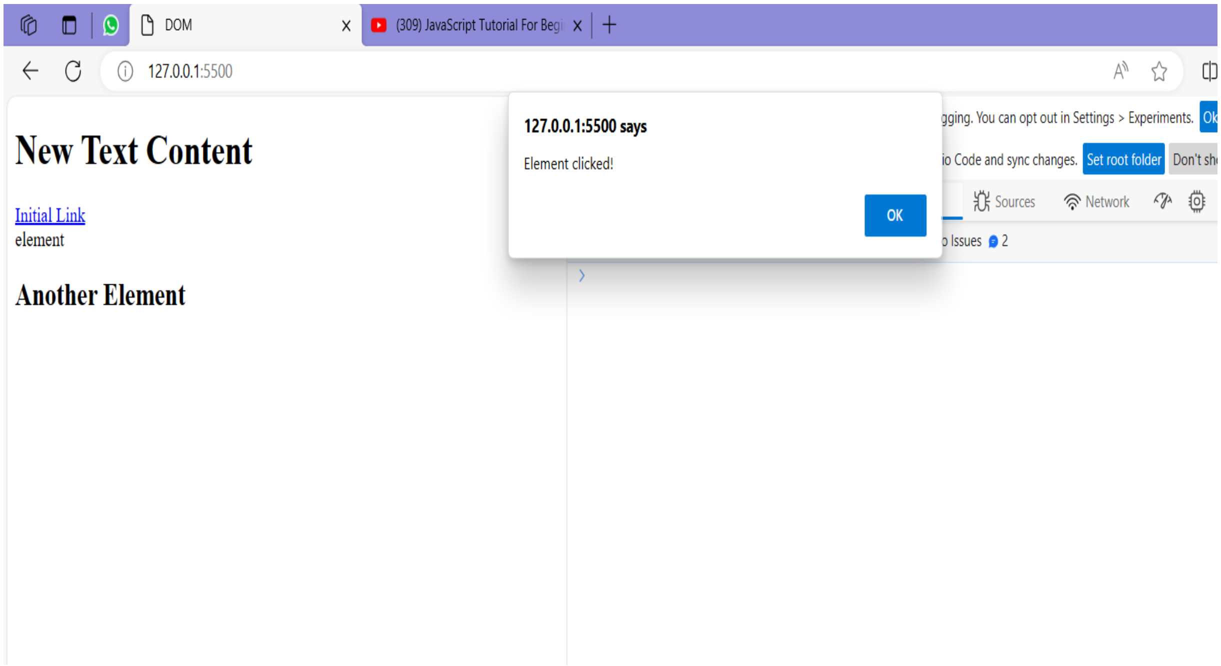
New Text Content

Initial Link
element

Another Element

2.

```
elementById.addEventListener("click", function () {
  alert("Element clicked!");
});
```


DOM
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127.0.0.1:5500
gging. You can opt out in Settings > Experiments.
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io Code and sync changes.
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Issues 2

New Text Content

Initial Link
element

Another Element

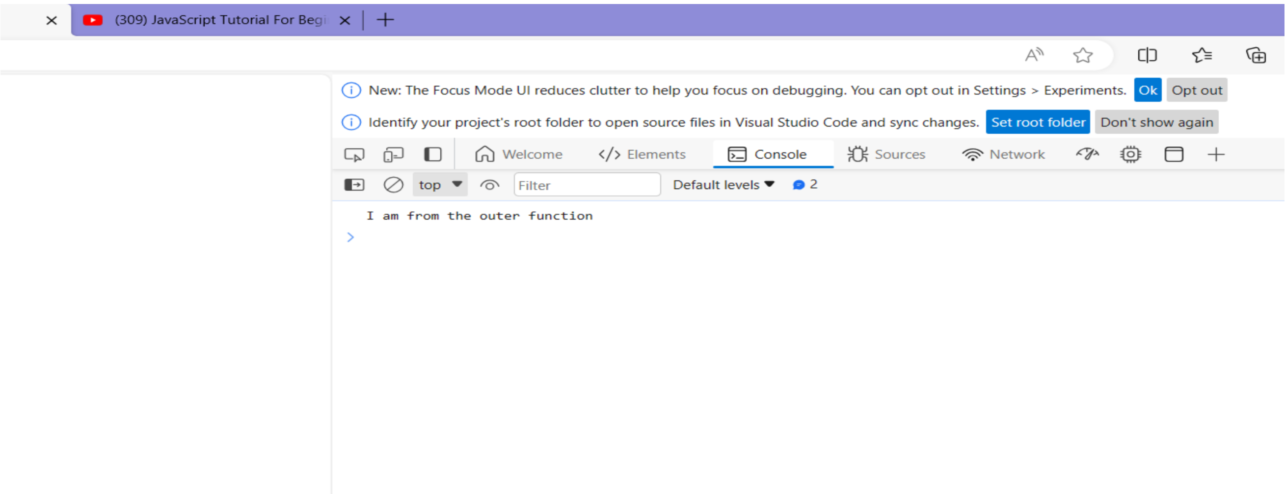
127.0.0.1:5500 says

Element clicked!

OK

16. CLOSURES

```
function createClosure() {
 let outerVar = "I am from the outer function";
 function innerFunction() {
  console.log(outerVar);
 }
 return innerFunction;
}
let closureFn = createClosure();
closureFn();
```



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Identify your project's root folder to open source files in Visual Studio Code and sync changes. Set root folder Don't show again

```
I am from the outer function
>
```