

TRAINING REPORT (TR-102)

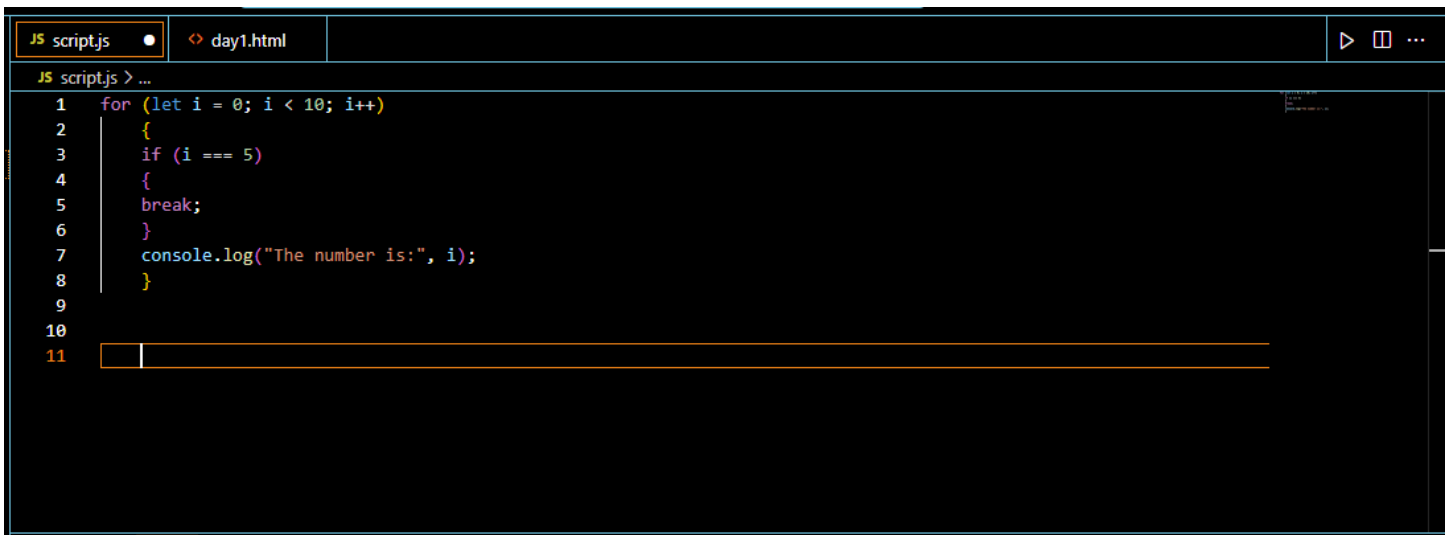
DAY: -17 (1 JULY 2024)

JavaScript Break and Continue: -

The **break statement** "jumps out" of a loop.

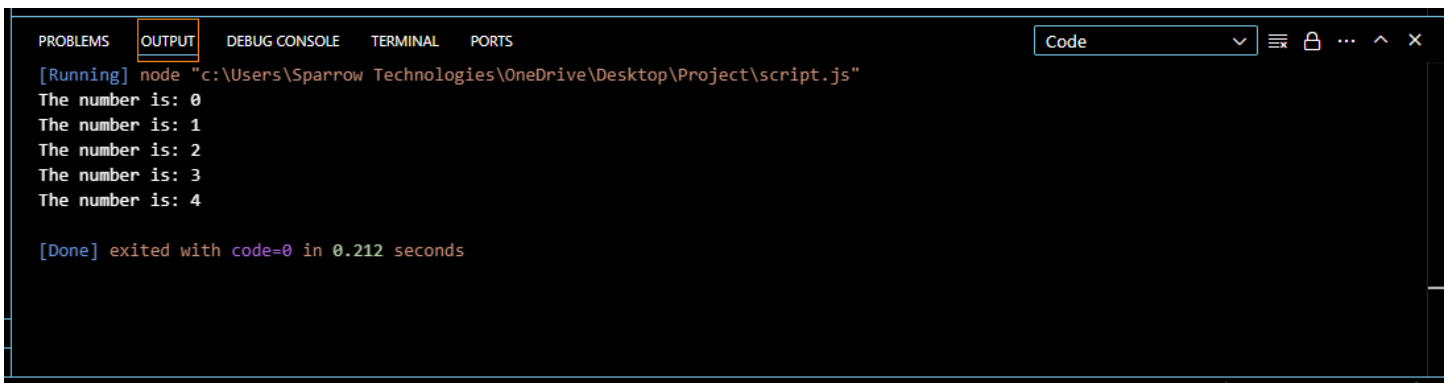
The **continue statement** "jumps over" one iteration in the loop.

The Break Statement: - You have already seen the break statement used in an earlier chapter of this tutorial. It was used to "jump out" of a switch () statement.



```
JS script.js • day1.html ▶ □ ...
JS script.js > ...
1  for (let i = 0; i < 10; i++)
2  {
3      if (i === 5)
4      {
5          break;
6      }
7      console.log("The number is:", i);
8  }
9
10
11
```

OUTPUT: -



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Code
[Running] node "c:\Users\Sparrow Technologies\OneDrive\Desktop\Project\script.js"
The number is: 0
The number is: 1
The number is: 2
The number is: 3
The number is: 4
[Done] exited with code=0 in 0.212 seconds
```

The Continue Statement: - The continue statement breaks one iteration (in the loop), if a specified condition occurs, and continues with the next iteration in the loop.

```
JS script.js > ...
1  for (let i = 0; i < 10; i++)
2  {
3      if (i === 5)
4      {
5          continue;
6      }
7      console.log("The number is:", i);
8  }
9
```

OUTPUT: -

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS
[Running] node "c:\Users\Sparrow Technologies\OneDrive\Desktop\Project\script.js"
The number is: 0
The number is: 1
The number is: 2
The number is: 3
The number is: 4
The number is: 6
The number is: 7
The number is: 8
The number is: 9

[Done] exited with code=0 in 0.223 seconds
```

Nested Loops JavaScript: - A composition of loops is called a nested loop. The most common type of nested loop will be one loop inside another. The first loop is usually called the outer loop while the second is called the inner loop.

```
JS script.js  day1.html
JS script.js > ...
1  for (let i = 10; i < 11; i++)
2  {
3      for (let j = 1; j <= 10; j++)
4          {console.log(`${i} x ${j} = ${i * j}`)};
5      }
6  }
7
```

OUTPUT: -



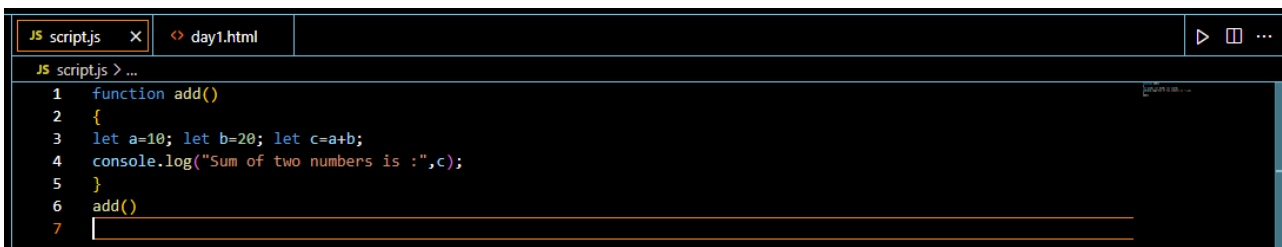
```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Code
[Running] node "c:\Users\Sparrow Technologies\OneDrive\Desktop\Project\script.js"
10 x 1 = 10
10 x 2 = 20
10 x 3 = 30
10 x 4 = 40
10 x 5 = 50
10 x 6 = 60
10 x 7 = 70
10 x 8 = 80
10 x 9 = 90
10 x 10 = 100
[Done] exited with code=0 in 0.235 seconds
```

A JavaScript function is a block of code designed to perform a particular task.A

JavaScript function is executed when "something" invokes it (calls it).

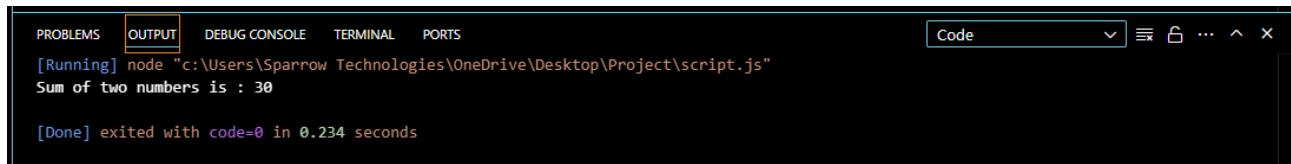
JavaScript Function Syntax: -

- A JavaScript function is defined with the function keyword, followed by a name, followed by parentheses ().
- Function names can contain letters, digits, underscores, and dollar signs (same rules as variables).
- The parentheses may include parameter names separated by commas: (*parameter1, parameter2, ...*)
- The code to be executed, by the function, is placed inside curly brackets: {}
- Function parameters are listed inside the parentheses () in the function definition.
- Function **arguments** are the **values** the function receives when invoked.
- Inside the function, the arguments (the parameters) behave as local variables.



```
JS script.js x day1.html
JS script.js > ...
1 function add()
2 {
3   let a=10; let b=20; let c=a+b;
4   console.log("Sum of two numbers is :",c);
5 }
6 add()
7
```

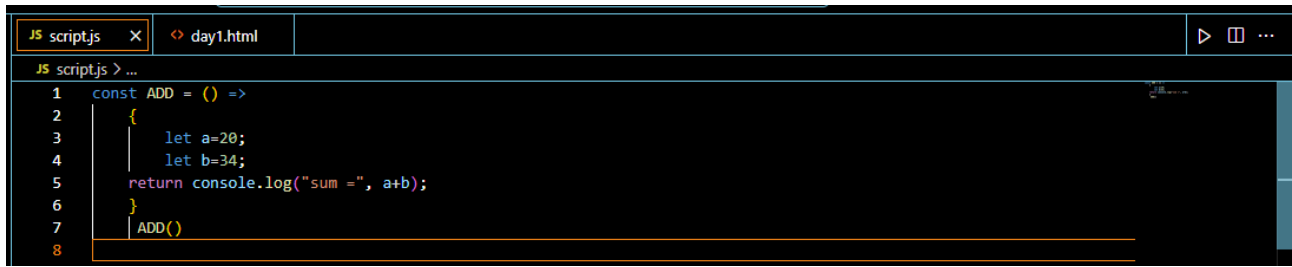
OUTPUT: -



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
[Running] node "c:\Users\Sparrow Technologies\OneDrive\Desktop\Project\script.js"
Sum of two numbers is : 30

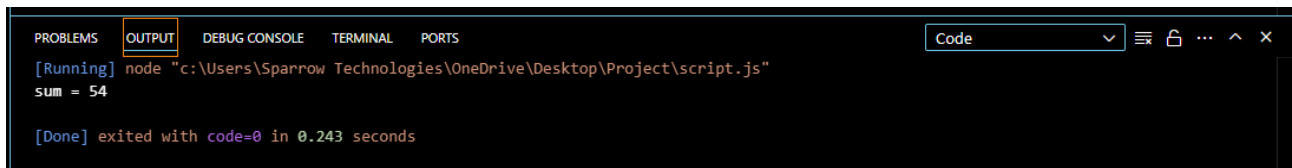
[Done] exited with code=0 in 0.234 seconds
```

Arrow function: -



```
JS script.js x day1.html
JS script.js > ...
1 const ADD = () =>
2 {
3   let a=20;
4   let b=34;
5   return console.log("sum =", a+b);
6 }
7 ADD()
8
```

OUTPUT: -



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
[Running] node "c:\Users\Sparrow Technologies\OneDrive\Desktop\Project\script.js"
sum = 54

[Done] exited with code=0 in 0.243 seconds
```

Anonymous Function: - It is a function with no name associated with it. Normally we use the *function* keyword before the function name to define a function in JavaScript, however, in anonymous functions, we use only the *function* keyword without the function name.

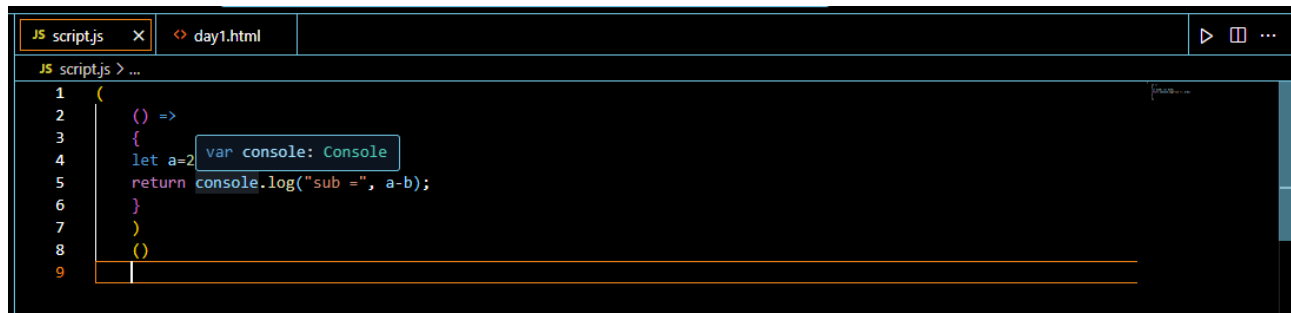
An anonymous function is not accessible after its initial creation, it can only be accessed by a variable it is stored in as a *function as a value*. An anonymous function can also have multiple arguments, but only one expression.

Syntax: - The below-enlightened syntax illustrates the declaration of an anonymous function using the normal declaration:

```
Function () {
  // Function Body
}
```

We may also declare an anonymous function using the arrow function technique which is shown below:

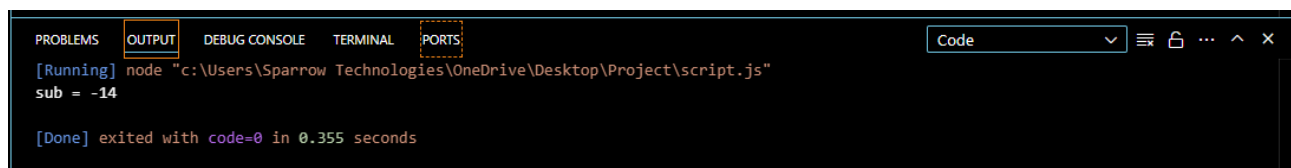
```
( () => {  
    // Function Body...  
} )();
```



The screenshot shows the VS Code editor with a file named 'script.js' open. The code is an anonymous arrow function that takes no arguments and returns a console log statement. The function is called immediately. A tooltip for 'console' is visible over the 'console.log' call.

```
1 (  
2   () =>  
3   {  
4     let a=2  
5     return console.log("sub =", a-b);  
6   }  
7 )  
8 (  
9 )
```

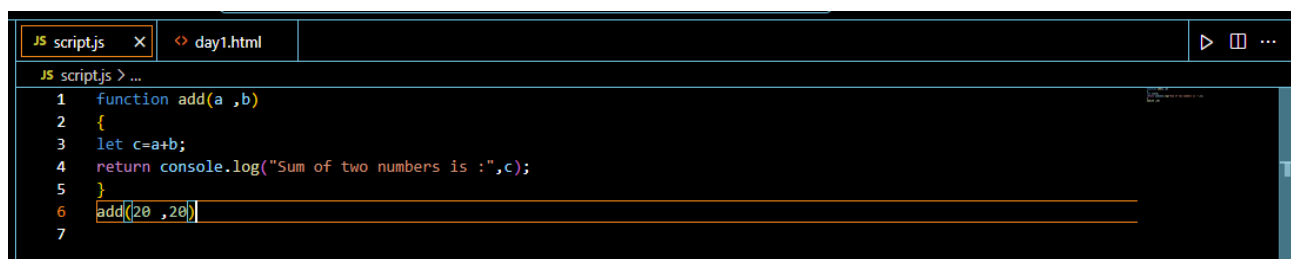
OUTPUT: -



The screenshot shows the VS Code output console. The output is 'sub = -14'. The console also shows the command 'node "c:\Users\Sparrow Technologies\OneDrive\Desktop\Project\script.js"' and the status '[Done] exited with code=0 in 0.355 seconds'.

```
[Running] node "c:\Users\Sparrow Technologies\OneDrive\Desktop\Project\script.js"  
sub = -14  
[Done] exited with code=0 in 0.355 seconds
```

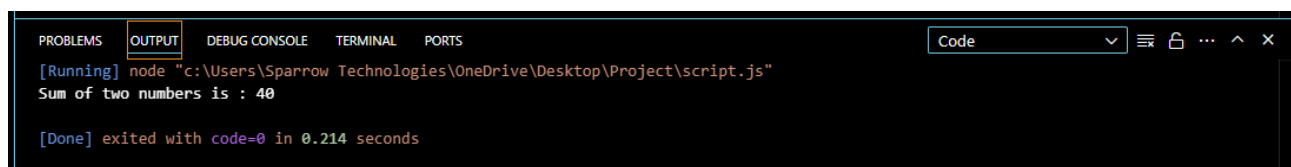
Parameters: -



The screenshot shows the VS Code editor with a file named 'script.js' open. The code is a function named 'add' that takes two parameters, 'a' and 'b', and returns a console log statement. The function is called with arguments 20 and 20.

```
1 function add(a ,b)  
2 {  
3   let c=a+b;  
4   return console.log("Sum of two numbers is :",c);  
5 }  
6 add(20 ,20)  
7
```

OUTPUT: -



The screenshot shows the VS Code output console. The output is 'Sum of two numbers is : 40'. The console also shows the command 'node "c:\Users\Sparrow Technologies\OneDrive\Desktop\Project\script.js"' and the status '[Done] exited with code=0 in 0.214 seconds'.

```
[Running] node "c:\Users\Sparrow Technologies\OneDrive\Desktop\Project\script.js"  
Sum of two numbers is : 40  
[Done] exited with code=0 in 0.214 seconds
```