**If, else if and else**

When we have to work on conditions.

If

Else if

Else

**Loop in JS**

**While loop**

Var x=0;

While(x<3)

{

Console.log(“Hi);

X++;

}

**Do while loop**

Var i=0;

Do

{

Console.log(i);

I++;

}

While(i<3);

**For loop**

For (var i=1; i<10; i++)

{

Console.log(x,”\*”,I,”=”,x\*1);

}

* + For in
  + For of

**Break and continue keyword**

Break: - control will go out of loop at that moment.

Continue: - continue will skip current iteration and increment or decrement the value.

**Function in js**

Repetition or reuse of code but not in continuous manner then we will use function.

* A block of code designed to perform a particular task, executed when "called."

Syntax:

Function name (input if needed)

{

//statements

}

**Arrow Function in JS**

Const demo= function();

{

Console.log(“Hello”);

}

Demo();

Instead of functon we can use arrow

Const demo=(x,y) =>{return x+y}

Let z= demo(3,5);

Console.log(z);

Array in js

An array is a data structure in JavaScript that can store multiple values in a single variable. Each item in an array is called an element, and each element has a specific index (starting from 0 for the first element).

Declaration of array

Using square brackets: let arr = [1, 2, 3, 4, 5];

Using the Array constructor: let arr = new Array(1, 2, 3, 4, 5);

Accessing Array Elements

let fruits = ['Apple', 'Banana', 'Orange'];

console.log(fruits[0]); // Output: Apple

console.log(fruits[1]); // Output: Banana

Modifying Array Elements

let fruits = ['Apple', 'Banana', 'Orange'];

fruits[1] = 'Mango';

console.log(fruits); // Output: ['Apple', 'Mango', 'Orange']

Array Properties

* Length : it will give length of array or number of elements.

let fruits = ['Apple', 'Banana', 'Orange'];

console.log(fruits.length); // Output: 3

* Push() : Adds new elements to the end of an array and returns the new length of the array

let fruits = ['Apple', 'Banana'];

fruits.push('Orange');

console.log(fruits); // Output: ['Apple', 'Banana', 'Orange']

* Pop() : Removes the last element from an array and returns that element.

let fruits = ['Apple', 'Banana', 'Orange'];

let removedFruit = fruits.pop();

console.log(removedFruit); // Output: Orange

console.log(fruits); // Output: ['Apple', 'Banana']

* Shift() : Removes the first element from an array and returns that element.

let fruits = ['Apple', 'Banana', 'Orange'];

let removedFruit = fruits.shift();

console.log(removedFruit); // Output: Apple

console.log(fruits); // Output: ['Banana', 'Orange']

* Unshift() : Adds new elements to the beginning of an array and returns the new length of the array.

let fruits = ['Banana', 'Orange'];

fruits.unshift('Apple');

console.log(fruits); // Output: ['Apple', 'Banana', 'Orange']

* Concat() : Merges two or more arrays and returns a new array.

let fruits = ['Apple', 'Banana'];

let vegetables = ['Carrot', 'Potato'];

let food = fruits.concat(vegetables);

console.log(food); // Output: ['Apple', 'Banana', 'Carrot', 'Potato']

* Slice() : Returns a shallow copy of a portion of an array into a new array object.

let fruits = ['Apple', 'Banana', 'Orange', 'Mango'];

let citrus = fruits.slice(1, 3);

console.log(citrus); // Output: ['Banana', 'Orange']

* Splice() : Adds or removes elements from an array.

let fruits = ['Apple', 'Banana', 'Orange'];

fruits.splice(1, 1, 'Mango'); // Removes 'Banana' and adds 'Mango'

console.log(fruits); // Output: ['Apple', 'Mango', 'Orange']

* indexOf() : Returns the first index at which a given element can be found in the array, or -1 if it is not present.

let fruits = ['Apple', 'Banana', 'Orange'];

let index = fruits.indexOf('Banana');

console.log(index); // Output: 1

* include() : Checks if an array contains a certain element, returning true or false.

let fruits = ['Apple', 'Banana', 'Orange'];

console.log(fruits.includes('Banana')); // Output: true

console.log(fruits.includes('Mango')); // Output: false

* join() : Joins all elements of an array into a string, separated by a specified separator.

let fruits = ['Apple', 'Banana', 'Orange'];

let result = fruits.join(', ');

console.log(result); // Output: 'Apple, Banana, Orange'

* reverse() : Reverses the order of the elements in an array.

let fruits = ['Apple', 'Banana', 'Orange'];

fruits.reverse();

console.log(fruits); // Output: ['Orange', 'Banana', 'Apple']

* sort() : Sorts the elements of an array.

let numbers = [40, 100, 1, 5, 25];

numbers.sort(function(a, b) { return a - b; });

console.log(numbers); // Output: [1, 5, 25, 40, 100]

**Iterating Through Arrays**

* **Using a for loop:**

let fruits = ['Apple', 'Banana', 'Orange'];

for (let i = 0; i < fruits.length; i++) {

console.log(fruits[i]);

}

* **Using forEach() method:**

let fruits = ['Apple', 'Banana', 'Orange'];

fruits.forEach(function(fruit) {

console.log(fruit);

});

* **Using for of loop:**

let fruits = ['Apple', 'Banana', 'Orange'];

for (let fruit of fruits) {

console.log(fruit);

}