

1. Function:

A function is a reusable block of code that performs a specific task.

```
function greet(name) {  
  console.log("Hello, " + name + "!");  
}
```

```
greet("Alice"); // Output: Hello, Alice!
```

Function that returns a value

```
function add(a, b) {  
  return a + b;  
}
```

```
let result = add(3, 5); // result is 8
```

2. String:

A string is a primitive data type that represents a sequence of characters (letters, numbers, symbols, etc.).

Ways to Declare Strings

- Double quotes " "
- Single quotes ' '
- Backticks (Template Literals) `

3. Arrays:

An array is a special kind of object in JavaScript used to store multiple values in a single variable.

```
let fruits = ["apple", "banana", "mango"];
```

- The values inside the array are called elements.
- Each element has a numeric index starting from 0.

4. **forEach** vs **forOf**:

forEach lets you have access to index while forOf does not but both iterates the array another difference is that forEach does not allow async await but forOf does allow it

* forEach does not create a new array but lets you perform operations on existing array

5. **array.map()**:

array.map() creates a new array and also perform operation on existing array

Eg

```
Let arr = [1,2,3,4]
```

```
Let newArr = arr.map((item)=>{
```

```
  Return item*item
```

```
})
```

6. **Array.filter()**:

Lets you clone an array and filter it based on a condition

```
Let arr = [1,2,3,4]
```

```
Let newArr = arr.filter((item)=>{
```

```
Return item > 2
```

```
})
```

,

7. Splice() and Slice():

array.slice() takes two arguments start and end start means the starting index and end means ending index but ending index is not included in slicing the method cuts the remaining path and creates a new array with values on indexes from start to end - 1

```
let arr = [1,2,3,4]
```

```
Let newArr = arr.slice(0,3)
```

New array has values of index from 0 to 3 excluding 4

Array to splice is used to delete or modify array

```
array.splice(start_index, delete_count, item_1, item_2 .....)
```

Item_1 , item_2 Represent new items to be added in array

8. array.sort():

Sorts the array in ascending order

```
Let arr = [2,5,1,6,3]
```

```
arr.sort() // output [1,2,3,5,6]
```