MAPPING AND FILTERING

Mapping:

Mapping is the process of applying a function to each element in a collection of an array and creating a new collection with the results. It takes an input collection, processes each element of array through a function, and returns a new collection with the transformed values, leaving the original collection unchanged.

For example, let's say we have an array of numbers [1, 2, 3, 4, 5], and we want to square each number to create a new array

**const originalArray = [1, 2, 3, 4, 5];**

**const squaredArray = originalArray. map ((num) => num \* num);**

**console.log(squaredArray);**

**// Output: [1, 4, 9, 16, 25]**

Filtering:

Filtering, as the name suggests, is the process of selecting elements from a collection based array on a certain criteria. It takes an input collection, checks each element against a condition (specified in the form of a function), and returns a new collection with the elements that satisfy the condition.

For instance, let's say we have an array of numbers [10, 15, 20, 25, 30], and we want to filter out the numbers greater than 20:

**EX -**

**const originalArray = [10, 15, 20, 25, 30];**

**const filteredArray = originalArray.filter((num) => num > 20);**

**console.log(filteredArray);**

**// Output: [25, 30]**