**Spread Operator:**

Spread operator (...) used to **expand (spread out)** elements of an array, object, or string into individual elements.

**Syntax:**

const arr1 = [10, 20, 30, 40, 50];

const arr2 = [1, 2, 3, 4, 5];

const arr3 = […arr1, …arr2];

**Rest Parameter (...)**

Used in function definitions to **collect (gather)** multiple arguments into a single array.

**Example: Collecting Arguments**

function showNumbers(...nums) {

console.log(nums);

}

showNumbers(1, 2, 3, 4); // [1, 2, 3, 4]

**Destructuring of Array and Object:**

Destructuring in JavaScript allows us to unpack values from Objects, Arrays and store them into variables.

**Array Destructuring**

const arr = [100, 200, 300];

const [v1, v2, v3] = arr;

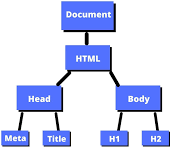
**Object Destructuring**

const obj = {“name”: “Joe”, “sal”: 5678};

const {name, sal} = obj;

**Note:** In object destructuring the name of variables should be same as property names of objects.

**Introduction to DOM**



1. DOM stands for Document Object Model
   1. Document - HTML Webpage
   2. Object - HTML Tags(HTML elements)
   3. Model - Tree Like Structure
2. **The DOM is a programming interface for web documents. It represents the structure of a webpage as a tree of objects where each element , attribute and piece of text node.**
3. With the help of DOM we can access , modify, add or delete elements on the html page dynamically.
4. DOM Selector -
   1. DOM selectors are used to select the html element on the html document
      1. **getElementById(“id name”)**
         1. Html document consist of unique id and id never be repeat.
         2. If same id is mentioned in html document then getElementById always target the first element.
      2. **getElementsByClassName**
         1. HTML document consist of multiple same classes
         2. This selector returns a html collection which is the same as an array.
         3. HTMLCollection consists of index values like an array and we target html elements on the basis of index value.
      3. **getElementsByTagName**
         1. HTML documents consist of multiple same tags.
         2. This selector returns a html collection which is the same as an array.
         3. HTMLCollection consists of index values like an array and we target html elements on the basis of index value.
      4. **getElementsByName**
         1. The getElementsByName() method is used in JavaScript to select and return a collection of all HTML elements within a document that share a specified value in their name attribute.
         2. Returns a NodeList (like an array of elements, but not exactly an array).
      5. **querySelector**
         1. This selector returns the first element in the dom that matches the specified css selector
         2. It never return a html collection
         3. In this selector we use
            1. . for class
            2. # for id
            3. Tagname for tag
      6. **querySelectorAll**
         1. This selector returns the all element that matches the dom on specified css selector as a NodeList.
         2. **NodeList** supports .forEach() in modern browsers.