**Question 1: What is an array in JavaScript? How do you declare and initialize an array?**

An array is a data structure that stores an ordered collection of values (elements). Arrays can hold multiple data types (numbers, strings, objects, etc.).

**Declaring & Initializing an Array**

**Using Array Literal (Most Common):**

const fruits = ["apple", "banana", "cherry"]; // Initialized with values

const emptyArray = []; // Empty array

**Using the Array Constructor:**

const numbers = new Array(1, 2, 3); // [1, 2, 3]

const emptyArray = new Array(5); // Creates an array with 5 empty slots

**From a String (Using split):**

const str = "Hello,World";

const arr = str.split(","); // ["Hello", "World"]

**Question 2: Explain the methods push(), pop(), shift(), and unshift()used in arrays**.

**1. push()**

Purpose: Adds one or more elements to the end of an array.

Modifies Original Array? Yes

Returns: New length of the array.

Example:

const fruits = ["apple", "banana"];

fruits.push("orange"); // ["apple", "banana", "orange"]

**2. pop()**

Purpose: Removes the last element from an array.

Modifies Original Array? Yes

Returns: The removed element.

Example:

const fruits = ["apple", "banana", "orange"];

fruits.pop(); // Returns "orange", array becomes ["apple", "banana"]

**3. shift()**

Purpose: Removes the first element from an array.

Modifies Original Array? Yes

Returns: The removed element.

Example:

const fruits = ["apple", "banana", "orange"];

fruits.shift(); // Returns "apple", array becomes ["banana", "orange"]

**4. unshift()**

Purpose: Adds one or more elements to the beginning of an array.

Modifies Original Array? Yes

Returns: New length of the array.

Example:

const fruits = ["banana", "orange"];

fruits.unshift("apple"); // ["apple", "banana", "orange"]