Array

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What is array

▶ An array is a collection of similar data types stored in a single variable.

▶ It is used to store multiple values in one place.

▶ Example: int[] numbers = {1, 2, 3, 4, 5};

How to declare the array

▶ Syntax

Int[] marks;   // Declaration

marks = new int[5];   // Memory allocation

▶ You can also declare and initialize togethe

Int[] marks = {90, 80, 70, 85, 95};

Operations perform on array

Traversal – Loop through elements.

Insertion – Not directly possible, use logic or other data structures.

Update – arr[0] = 100;

Search – Use loop to find elements.

Accessing the array elements

▶ Arrays use index numbers (starting from 0).

▶ Example:

System.out.println(marks[2]); // prints 70

▶ Use a loop to go through all elements:

For (int I = 0; I < marks.length; i++) {

   System.out.println(marks[i]);

}

Types of array

▶ 1.One-Dimensional Array – like a list

Example: int[] arr = {1, 2, 3};

▶ 2. Two-Dimensional Array – like a table

Example: int[][] matrix = {{1, 2}, {3, 4}};