Java Problem Statements

Instructor: Firoz

November 15, 2023

1 Problem Statement 1

Write a Java program to print every element in an array. You should create an array of integers and then use a loop to print each element in the array one by one.

1.1. Input

Create an integer array with a set of values.

1.2. Output

Use a loop (for loop, while loop, or any loop of your choice) to iterate through the array and print each element during each iteration.

1.3. Example

Input Array: [8, 14, 3, 9, 21]
Output:
Element 1: 8
Element 2: 14
Element 3: 3
Element 4: 9
Element 5: 21

2 Problem Statement 2

Write a Java program to calculate the average of a set of integers. You should create an array of integers and then use a function to calculate the average of the elements in the array.

2.1. Input

Create an integer array with a set of values.

2.2. Output

Define a function named `calculateAverage` that takes an integer array as a parameter and returns the average of the elements in the array.

2.3. Example

Input Array: [10, 20, 30, 40, 50]

Output:
Average: 30.0

3 Problem Statement 3

Write a Java program to find the maximum element in an array. Create an array of integers and then implement a function to determine and print the maximum value in the array.

3.1. Input

Create an integer array with a set of values.

3.2. Output

Define a function named `findMax` that takes an integer array as a parameter and returns the maximum value in the array.

3.3. Example

Input Array: [15, 7, 23, 11, 42]
  Output: Maximum Element: 42