public class FindMaxElement {

public static int findMax(int[] nums) {

if (nums == null || nums.length == 0) {

throw new IllegalArgumentException("Input array must not be empty");

}

int max = nums[0]; // Initialize max with the first element

for (int i = 1; i < nums.length; i++) {

if (nums[i] > max) {

max = nums[i]; // Update max if current element is greater

}

}

return max; // Return the maximum element found

}

public static void main(String[] args) {

int[] nums = {3, 1, 4, 1, 5, 9, 2, 6, 5};

int max = findMax(nums);

System.out.println("Maximum element in the array is: " + max);

}

}