```java
import java.util.Arrays;
import java.util.Scanner;

public class MinScalarProduct {
    public static int minScalarProduct(int[] X, int[] Y) {
        // Sort the arrays X and Y in ascending order
        Arrays.sort(X);
        Arrays.sort(Y);

        // Initialize the minimum scalar product to 0
        int minScalar = 0;

        // Calculate the dot product of the two vectors
        for (int i = 0; i < X.length; i++) {
            minScalar += X[i] * Y[Y.length-1-i];
        }

        return minScalar;
    }

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter the size of the arrays: ");
        int n = scanner.nextInt();
        int[] X = new int[n];
        int[] Y = new int[n];
        System.out.print("Enter the elements of array X separated by space: ");
        for (int i = 0; i < n; i++) {
            X[i] = scanner.nextInt();
        }
        System.out.print("Enter the elements of array Y separated by space: ");
        for (int i = 0; i < n; i++) {
            Y[i] = scanner.nextInt();
        }
        scanner.close();

        // Call the minScalarProduct function and print the result
        int minScalarProduct = minScalarProduct(X, Y);
        System.out.println("Minimum Scalar Product: " + minScalarProduct);
    }
}
```