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PROBLEM STATEMENT :	Write a program to take an array as input, add 2 to each element of the array, and print the modified array as output
THEORY:	<p>Static methods in Java:</p> <p>In Java, a static method is a method that belongs to a class rather than an instance of the class. This means that you can call a static method on the class itself, rather than on an object that was created from the class.</p> <ol style="list-style-type: none"> 1. They are declared using the "static" keyword before the method name in the method signature. 2. They can access only static data members and other static methods of the class, and not the non-static (instance) members of the class. 3. They are called using the class name, followed by the dot operator and the method name (e.g. "MyClass.myStaticMethod()"). 4. They cannot refer to "this" or "super" keywords within the method, as there is no instance of the class associated with the method call. 5. They can be called without creating an instance of the class, which makes them useful for utility methods or methods that do not require any state information. 6. They can be used to create factory methods that return new instances of the class, or to create utility methods that perform common tasks.

PROGRAM:

```
// Importing the Scanner class from the java.util package
import java.util.Scanner;

// Defining a public class called "Add2"
public class Add2 {

    // Defining a static method called "addtwo" that takes an
    // integer array as an input parameter
    // This method adds 2 to each element of the array and
    // returns the modified array
    static int[] addtwo(int []arr){
        for(int i=0;i<arr.length;i++){
            arr[i]+=2; // Adding 2 to the current element of
the array
        }
        return arr; // Returning the modified array
    }

    // Defining the main method
    public static void main(String[] args) {

        // Declaring an integer variable called "n"
        int n;

        // Printing a message to prompt the user to enter the
        // number of elements in the array
        System.out.println("Enter number of elements in
array");

        // Creating a new Scanner object called "sc"
        Scanner sc=new Scanner(System.in);

        // Reading an integer value from the user and storing
        // it in the "n" variable
        n=sc.nextInt();

        // Creating a new integer array called "numbers" with
        // "n" elements
        int[] numbers=new int[n];

        // Printing a message to prompt the user to enter the
        // elements of the array
        System.out.println("enter the elements in the
array");

        // Looping through each element of the "numbers"
        // array and reading an integer value from the user for each
        // element
        for (int i=0;i<n;i++){
            numbers[i]=sc.nextInt();
        }

        // Creating a new integer array called "newarr" with
        // "n" elements
        int[] newarr=new int[n];
```

```
// Calling the "addtwo" method with the "numbers"
array as the input parameter and storing the returned array
in "newarr"
newarr=addtwo(numbers);

// Printing a message to indicate that the new array
is being displayed
System.out.println("The new array is:");

// Looping through each element of the "newarr" array
and printing it to the console
for(int i=0;i<n;i++){
    System.out.printf("%d ",newarr[i]);
}
}
```

```
Enter number of elements in array
6
enter the elements in the array
2 45 6 33 5 9
The new array is:
4 47 8 35 7 11
```

RESULT: