

Rajalakshmi Engineering College

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2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 12_Q2

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

Alex is learning about Java's functional interfaces and lambda expressions.

He wants to write a simple program that prints the square of each number in an array using a predefined functional interface.

Help Alex complete this task using the Consumer functional interface.

Input Format

- The first line contains an integer N, the number of elements in the array.
- The second line contains N space-separated integers.

Output Format

- Print the squares of all elements in the array, separated by a space.

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 4

1 2 3 4

Output: 1 4 9 16

Answer

```
import java.util.*;
@FunctionalInterface
interface squares{
    void sq(int n);
}

class main{
    public static void main(String[] args){
        Scanner in= new Scanner(System.in);
        int n=in.nextInt();

        int[] arr= new int[n];
        for(int i=0; i<n; i++){
            arr[i]=in.nextInt();
        }

        squares obj= n1 -> System.out.print(n1*n1+" ");

        for(int i: arr)
        {
            obj.sq(i);
        }
    }
}
```

Status : Correct

Marks : 10/10