

Task-2 Array Manipulation - prefix sum

Aim - to find the prefix sum of a given array

Algorithm

1. start
2. Read array size n
3. Read array element
4. $\text{prefix}[0] = \text{arr}[0]$
5. $\text{prefix}[i] = \text{prefix}[i-1] + \text{arr}[i]$
6. Display prefix array
7. Stop

Program

```
import java.util.Scanner;

class prefix sum {
    public static void main(String[] args) {
        Scanner
        int n = sc.nextInt();
        int[] arr = new int[n];
        int[] prefix = new int[n];
        for (int i = 0; i < n; i++) {
            arr[i] = sc.nextInt();
            prefix[i] = prefix[i-1] + arr[i];
        }
        for (int i = 0; i < n; i++) {
            System.out.println(prefix[i] + " ");
        }
    }
}
```

input :-

10 20 10 5 15

output :-

10 30 40 45 60

Result: Thus, the prefix sum array is completed successfully.

VEL TECH	
EX No.	21
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	2
VIVA VOCE (3)	4
RECORD (4)	1
TOTAL (15)	
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03/07/20