

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 elements
4. $\text{pre-fix}[0] = \text{arr}[0]$
5. $\text{pre-fix}[i] = \text{pre-fix}[i-1] + \text{arr}[i]$
6. Display pre-fix array
7. Stop

PROGRAM:

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

```
class prefix sum{
```

```
    public static void main(String[] args)
```

```
{ Scanner sc = new
```

```
Scanner(System.in);
```

```
    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[0] = arr[0];
```

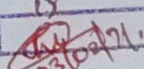
```
    for (int i = 1; i < n; i++)
```

```
        prefix[i] = prefix[i-1] + arr[i];
```

```
    for (int i = 0; i < n; i++)
```

```
        System.out.println(prefix[i] + " ");
```

```
    }  
}
```

VELTECH	
EX No.	12
PERFORMANCE (5)	5
RESULT AND ANALYSIS (3)	3
VIVA VOCE (3)	3
RECORD (4)	4
TOTAL (15)	15
SIGN WITH DATE	 03/09/21

RESULT:- Thus, the prefix sum array is completed successfully.

Input

5 10 20 10 5 15

Output

10 30 40 45 60