

Experiment 6: Array

6.2. WAP to read a list of integers and store it in a single dimensional array. Write a C program to count and display positive, negative, odd, and even numbers in an array.

Ans-:

```
#include <stdio.h>

int main() {

    printf("Name - Aryan kamboj\nSAP ID - 590025526\ncourse - BCA\nBatch -
6");
    printf("\n-----\n");

    int n;

    printf("Enter the number of elements: ");
    scanf("%d", &n);

    int arr[n];

    // Read elements
    printf("Enter %d integers:\n", n);
    for (int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }

    int positive = 0, negative = 0, even = 0, odd = 0;

    // Count positive, negative, odd, and even
    for (int i = 0; i < n; i++) {
        if (arr[i] > 0)
            positive++;
        else if (arr[i] < 0)
            negative++;

        if (arr[i] % 2 == 0)
            even++;
        else
            odd++;
    }

    // Display results
    printf("\nPositive numbers: %d\n", positive);
    printf("Negative numbers: %d\n", negative);
    printf("Even numbers: %d\n", even);
```

```
    printf("Odd numbers: %d\n", odd);

    return 0;
}
```

Output:

```
● aryankamboj@users-MacBook-Air lab_9 % cd "/Users/aryankamboj/Desktop/c_programming_theory/lab_9/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/Users/aryankamboj/Desktop/c_programming_theory/lab_9/"tempCodeRunnerFile
Name - Aryan kamboj
SAP ID - 590025526
course - BCA
Batch - 6
-----
Enter the number of elements: 6
Enter 6 integers:
-2 -3 4 5 7 9

Positive numbers: 4
Negative numbers: 2
Even numbers: 2
Odd numbers: 4
```