

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.

```
#include <stdio.h>
int main() {
    int n, i;
    int arr[100];
    int positive = 0, negative = 0, odd = 0, even = 0;
    printf("Enter number of elements: ");
    scanf("%d", &n);
    printf("Enter %d integers: \n", n);
    for (i=0; i<n; i++) {
        scanf("%d", &arr[i]);
        if (arr[i] > 0)
            positive++;
        else if (arr[i] < 0)
            negative++;
        if (arr[i] % 2 == 0)
            even++;
        else
            odd++;
    }
    printf("Positive numbers: %d\n", positive);
    printf("Negative numbers: %d\n", negative);
    printf("Even numbers: %d\n", even);
    printf("Odd numbers: %d\n", odd);
    return 0;
}
```

```
C exp5count.c > ...
2 #include <stdio.h>
3
4 int main() {
5     int n, i;
6     int arr[100]; // assuming maximum 100 elements
7     int positive = 0, negative = 0, odd = 0, even = 0;
8
9     printf("Enter number of elements: ");
10    scanf("%d", &n);
11
12    printf("Enter %d integers:\n", n);
13    for(i = 0; i < n; i++) {
14        scanf("%d", &arr[i]);
15
16        // Count positive and negative
17        if(arr[i] > 0)
18            positive++;
19        else if(arr[i] < 0)
20            negative++;
21
22        // Count odd and even
23        if(arr[i] % 2 == 0)
24            even++;
25        else
26            odd++;
27    }
28
29    printf("\nPositive numbers: %d\n", positive);
30    printf("Negative numbers: %d\n", negative);
31    printf("Even numbers: %d\n", even);
32    printf("Odd numbers: %d\n", odd);
33
34    return 0;
35 }
```

```
> cd "c:\Users\abiga\OneDrive\Desktop\Absproj\" ; if ($?) { gcc ex  
p5count.c -o exp5count } ; if ($?) { .\exp5count }  
Enter number of elements: 5  
Enter 5 integers:  
1  
4  
0  
-9  
0  
  
Positive numbers: 2  
Negative numbers: 1  
Even numbers: 3  
Odd numbers: 2  
PS C:\Users\abiga\OneDrive\Desktop\Absproj>
```