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("\n 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;
}
```

exp5count.c > ...

```c
#include <stdio.h>

int main() {
    int n, i;
    int arr[100]; // assuming maximum 100 elements
    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]);

        // Count positive and negative
        if(arr[i] > 0)
            positive++;
        else if(arr[i] < 0)
            negative++;

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

    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;
}
```

```
                                        > 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>
```