Q.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.

```c
#  include <stdio.h>

    int main() {
      int n, i, pos = 0, neg = 0, odd = 0, even = 0;
    printf ("Enter number of elements : ");
    scanf ("%d", &n);

    int arr [n];
    printf ("Enter %d integers:/n ", n);
    for (i = 0, i<n ; i++) {
    scanf (" %d", & arr[i]);
    if (arr [i] >0) pos++;
    else if (arr [i] % 2 = = 0) even ++;
    else   odd ++;

    }
    printf ("Positive numbers : %d /n", pos);
    printf ("Negative numbers : %d /n", neg);
    printf ("Even numbers : %d /n", even);
    printf ("Odd number : %d /h ", odd);

    return 0;
```
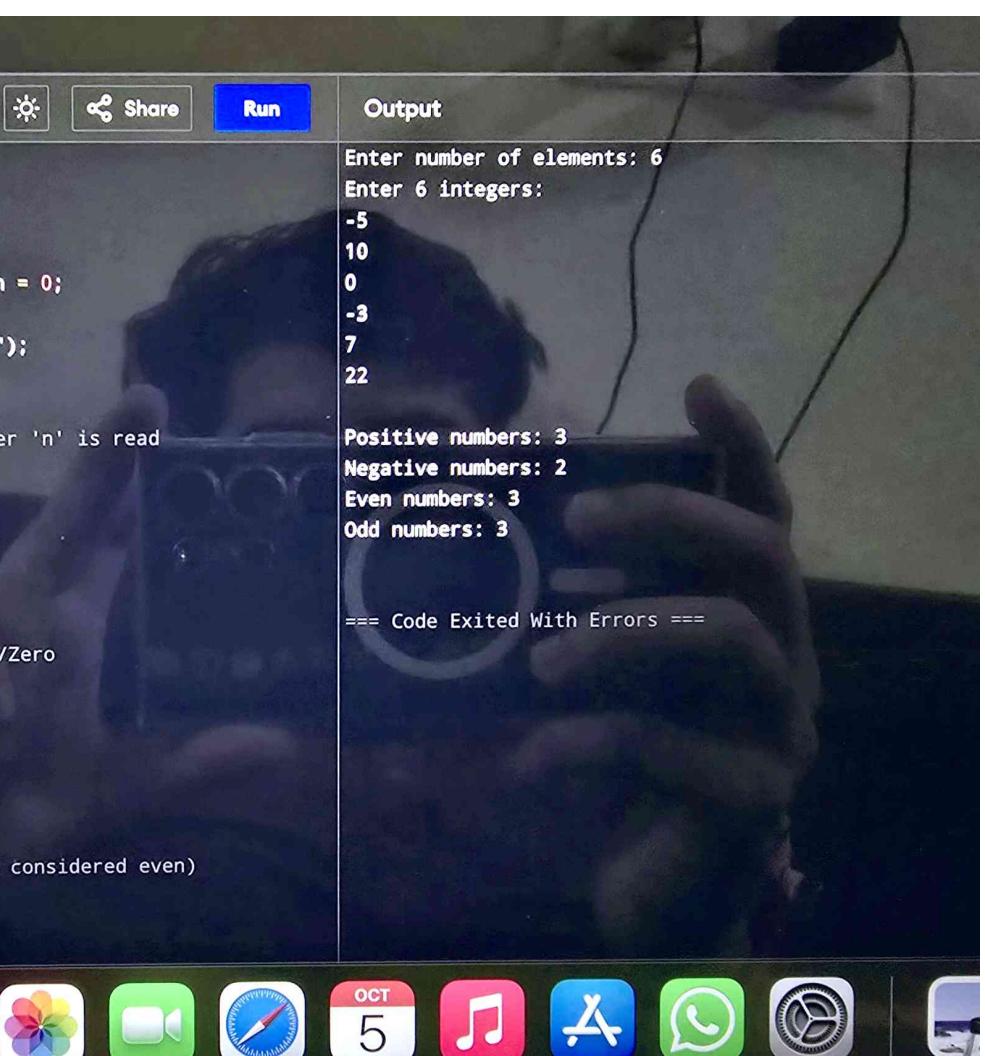
main.c

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```c
1   #include <stdio.h>
2
3   void main() {
4       int n, i;
5       int pos = 0, neg = 0, odd = 0, even = 0;
6
7       printf("Enter number of elements: ");
8       scanf("%d", &n);
9
10      // Array declaration must come after 'n' is read
11      int arr[n];
12
13      printf("Enter %d integers:\n", n);
14      for (i = 0; i < n; i++) {
15          scanf("%d", &arr[i]);
16
17          // Check for Positive/Negative/Zero
18          if (arr[i] > 0) {
19              pos++;
20          } else if (arr[i] < 0) {
21              neg++;
22          }
23
24          // Check for Even/Odd (Zero is considered even)
25          if (arr[i] % 2 == 0) {
26              even++;
```

Output

```
Enter number of elements: 6
Enter 6 integers:
-5
10
0
-3
7
22

Positive numbers: 3
Negative numbers: 2
Even numbers: 3
Odd numbers: 3

=== Code Exited With Errors ===
```