Q.1 Write a Program to write even & odd numbers from 50 to 70 into two separate arrays.
For example,
Output:
Even numbers from even_array:
50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70

Odd numbers from odd_array:
51, 53, 55, 57, 59, 61, 63, 65, 67, 69

Ans:

```
// Online C compiler to run C program online
#include <stdio.h>

int main() {
    int even_array[11], odd_array[11];
    int even_index = 0, odd_index = 0;


    for (int i = 50; i <= 70; i++) {

        if (i % 2 == 0) {
            even_array[even_index] = i;
            even_index++;
        } else {
            odd_array[odd_index] = i;
            odd_index++;
        }
    }

    printf("Even numbers from even_array:\n");
    for (int i = 0; i < even_index; i++) {
        printf("%d ", even_array[i]);
    }

    printf("\n\nOdd numbers from odd_array:\n");
    for (int i = 0; i < odd_index; i++) {
        printf("%d ", odd_array[i]);
    }

    return 0;
}
```

o/p:

Even numbers from even_array:
50 52 54 56 58 60 62 64 66 68 70

Odd numbers from odd_array:
51 53 55 57 59 61 63 65 67 69

=== Code Execution Successful ===

Q.2 Write a Program to generate mark sheets for a student. Enter the marks of 5 students in Chemistry, Mathematics, and Physics (each out of 100) using a Structure having attributes: roll no, name, chem_marks, maths_marks, and phy_marks. Display the percentage of each student.
For example,
Input:
Enter details of Student 1:
Roll no => 121
Name => Raj Patel
Chemistry => 95
Mathematics => 90
Physics => 88

Enter details of Student 2:
Roll no => 122
Name => Divya Sharma
Chemistry => 92
Mathematics => 80
Physics => 84

Enter details of Student 3:
Roll no => 123
Name => Piyush Mishra
Chemistry => 72
Mathematics => 87
Physics => 93

Enter details of Student 4:
Roll no => 124
Name => Vatsal Mangukiya
Chemistry => 68
Mathematics => 96
Physics => 85

Enter details of Student 5:
Roll no => 125

Name => Sagar Trivedi
Chemistry => 91
Mathematics => 89
Physics => 77

Output:
Raj Patel (121)
Chemistry => 95
Mathematics => 90
Physics => 88
Total => 273/300
Percent => 91.00%

Divya Sharma (122)
Chemistry => 92
Mathematics => 80
Physics => 84
Total => 256/300
Percent => 85.33%

Piyush Mishra (123)
Chemistry => 72
Mathematics => 87
Physics => 93
Total => 252/300
Percent => 84.00%

Vatsal Mangukiya (124)
Chemistry => 68
Mathematics => 96
Physics => 85
Total => 249/300
Percent => 83.00%

Sagar Trivedi (125)
Chemistry => 91
Mathematics => 89
Physics => 77
Total => 257/300
Percent => 85.66%

Ans:
```
// Online C compiler to run C program online
#include <stdio.h>
```

```
struct Student {
    char roll_no[10];
    char name[50];
    int chem_marks;
    int maths_marks;
    int phy_marks;
};

float calculate_percentage(int chem_marks, int maths_marks, int phy_marks) {
    int total_marks = chem_marks + maths_marks + phy_marks;
    return ((float)total_marks / 300) * 100;
}

int main() {
    struct Student students[5];

    for (int i = 0; i < 5; i++) {
        printf("Enter details of Student %d:\n", i + 1);
        printf("Roll no => ");
        scanf("%s", students[i].roll_no);
        printf("Name => ");
        scanf("%s", students[i].name);
        printf("Chemistry => ");
        scanf("%d", &students[i].chem_marks);
        printf("Mathematics => ");
        scanf("%d", &students[i].maths_marks);
        printf("Physics => ");
        scanf("%d", &students[i].phy_marks);
    }


    for (int i = 0; i < 5; i++) {
        printf("%s (%s)\n", students[i].name, students[i].roll_no);
        printf("Chemistry => %d\n", students[i].chem_marks);
        printf("Mathematics => %d\n", students[i].maths_marks);
        printf("Physics => %d\n", students[i].phy_marks);
        int total = students[i].chem_marks + students[i].maths_marks + students[i].phy_marks;
        printf("Total => %d/300\n", total);
        float percentage = calculate_percentage(students[i].chem_marks, students[i].maths_marks,
students[i].phy_marks);
        printf("Percent => %.2f%%\n\n", percentage);
    }
```

o/p:
Enter details of Student 1:
Roll no => 121
Name => rajpatel
Chemistry => 95
Mathematics => 90
Physics => 88
Enter details of Student 2:
Roll no => 122
Name => divyasharma
Chemistry => 92
Mathematics => 80
Physics => 84
Enter details of Student 3:
Roll no => 123
Name => piyushmishra
Chemistry => 72
Mathematics => 87
Physics => 93
Enter details of Student 4:
Roll no => 124
Name => vatsalmangukiya
Chemistry => 68
Mathematics => 96
Physics => 85
Enter details of Student 5:
Roll no => 125
Name => sagartrivedi

Chemistry => 91
Mathematics => 89
Physics => 77
rajpatel (121)
Chemistry => 95
Mathematics => 90
Physics => 88
Total => 273/300
Percent => 91.00%

divyasharma (122)
Chemistry => 92

Mathematics => 80
Physics => 84
Total => 256/300
Percent => 85.33%

piyushmishra (123)
Chemistry => 72
Mathematics => 87
Physics => 93
Total => 252/300
Percent => 84.00%

vatsalmangukiya (124)
Chemistry => 68
Mathematics => 96
Physics => 85
Total => 249/300
Percent => 83.00%

rtrivedi (125)
Chemistry => 91
Mathematics => 89
Physics => 77
Total => 257/300
Percent => 85.67%

=== Code Execution Successful ===