Assignment 4

1. Write a program that create a one-dimension array of 10 elements. The program should include 2 functions:
    a. A function that reads the array elements of integer numbers.
    b. A function that puts all even numbers first and then odd numbers in another array, then return the new array.

    Hint: the even numbers start at the beginning of the new array and the odd number start at the end.

    Example: *arr={1,4,8,3,9,12,5,2,15,6}*

    The returned array should be *arr2={ 4,8,12,2,6,15,5,9,3,1}*

2. Write a program for a hospital to keep track of the number of patient that visit 6 of the hospital clinic during the week days. Use a two dimensions array to represent the following table data.

	Sunday	Monday	Tuesday	Wednesday	Thursday
Dental	77	83	77	91	85
Medical	93	80	95	90	76
Dermatology	81	76	30	30	72
Cardiology	78	85	45	83	79
Paediatric	92	95	85	55	79
Surgical	65	91	45	39	78

    Your program should create and initialize the array in the main method and then include these 3 functions:
    a. A function that display all the elements of the array.
    b. A function that calculate the total number of the patient for each day in the different clinic. Save the total number in a one dimension array and print the output as bellow:
    Sunday 486 patient
    Monday 510 patient
    Tuesday 377 patient
    Wednesday 388 patient
    Thursday 469 patient
    c. A function that finds the day that has largest number of patient in Medical clinic. The output should be:
    Medical clinic has the largest number of patient on Tuesday 95 patient.

3. Define a **struct** computerType to store the following data about a computer: Manufacturer (string), model type (string), processor type (string), ram (int) in GB, hard drive size (int) in GB, year when the computer was built (int), and the price (double). Declare a computerType variable. and write statements to store the following information: Manufacturer—Computer Corporation, model—Desk Top, processor type—Core I 7, RAM—12 GB, hard drive size—500 GB, year when the computer was built—2016, and the price—875.00.