Enterprise Application Development

Assignment # 1

Deadline: 23/09/2019, Monday till 10 am

Write following programs using C#

1. Write a program that prints 'Hello World' to the screen.
2. Write a program that asks the user for their name and greets them with their name.
3. Modify the previous program such that only the users Alice and Bob are greeted with their names.
4. Write a program that asks the user for a number n and prints the sum of the numbers 1 to n
5. Modify the previous program such that only multiples of three or fiv e are considered in the sum, e.g. 3, 5, 6, 9, 10, 12, 15 for n =17
6. Write a function that returns the largest element in a list.
7. Write function that reverses a list, preferably in place.
8. Write a function that merges two sorted lists int o a new sorted list. [1,4,6] , [2,3,5] ? [1,2,3,4,5,6] . You can do this quicker
    than concatenating them followed by a sort.
9. Write a function that rotates a list by k elements. For example [1,2,3,4,5,6] rotated by two becomes [3,4,5,6,1,2] .
    Try solving this without creating a copy of the list. How many swap or move operations do you need?
10. Write a program for student attendance which will contain
    a-name
    b-roll number
    c-age
    d-attendance
    create object of 10 students,students with prime number roll number will be mark absent.display output of each student name roll number
    output:
    Name: Usman
    roll Number :Bcsf16m0044
    age: 20
    attendance :absent

11. Create a new project
    create the class Person .
    Create a class "Student" and another class "Teacher", both descendants of "Person".
    The class "Student" will have a public method "GoToClasses", which will write on screen "I'm going to class."
    The class "Teacher" will have a public method "Explain", which will show on screen "Explanation begins". Also, it will have a private attribute "subject", a string.
    The class Person must have a method "SetAge (int n)" which will indicate the value of their age (eg, 20 years old).Person class also have method Greet that prints hello on screen

The student will have a public method "ShowAge" which will write on the screen "My age is: 20 years old" (or the corresponding number).

You must create another test class called "StudentAndTeacherTest" that will contain "Main" and:

Create a Person and make it say hello

Create a student, set his age to 21, tell him to Greet and display his age

Create a teacher, 30 years old, ask him to say hello and then explain.

12. Create a class employee which have following attribute

       Name

       Designation

       Salary

Create employee parameterized constructor ,getter and setter for each attribute

Now make a list of employee and print each employee 's data.

Note: Use for each loop and List not array .

13. create a class shape that has 2 attribute X and Y.

Create a class circle that inherit shape class.

Circle has private attribute radius.

Create constructor of circle and set value of x y and raduis .

Circle class will override ToString method to print value of x y and raduis.

Use Format method to print values in ToString method .

create an object of circle and print values.