CL-1004 OBJECT ORIENTED PROGRAMMING LAB

Assignment # 03

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ASSIGNMENT #03
Classes and Objects
Object Oriented Programming – Lab

Submit the assignment on **Google Classroom and printed form.** Do not email me assignments after due date. It will not be accepted in any case. Students are required to submit actual content written in Pdf. Hand written/ Scanned assignments will not be accepted.

Note: Name of the file should start with your Serial Number followed by Roll number, Name and at the end assignment number (**10_p190001_Name_Assign#01**)

i.e. 10_p190001_Ali_Assign#01

Note: For user understanding purposes you should write comment with each line of code.

Note: Program copied from someone or plagiarized will not be considered for grading. Zero percent tolerance with plagiarism.

Q No.1: Define a class TEST in C++ with following description:

Private Members

TestCode of type integer

Description of type string

NoCandidate of type integer

CenterReqd (number of centers required) of type integer

A member function CALCNTR() to calculate and return the number of centers as

(NoCandidates/100+1)

Public Members

A function SCHEDULE() to allow user to enter values for TestCode, Description,

NoCandidate & call function CALCNTR() to calculate the number of Centres.

A function DISPTEST() to allow user to view the content of all the data members.

Q No.2: Define a class in C++ with following description:

Private Members

A data member Flight number of type integer

A data member Destination of type string

A data member Distance of type float

A data member Fuel of type float

A member function CALFUEL() to calculate the value of Fuel as per the following criteria

Distance	Fuel
<=1000	500
more than 1000 and <=2000	1100
more than 2000	2200

Public Members

A function FEEDINFO() to allow user to enter values for Flight Number, Destination, Distance & call function CALFUEL() to calculate the quantity of Fuel

A function SHOWINFO() to allow user to view the content of all the data members

Q No.3: Define a class BOOK with the following specifications :

Private members of the class BOOK are

BOOK NO integer type

BOOKTITLE 20 characters

PRICE float (price per copy)

TOTAL_COST() A function to calculate the total cost for N number of copies where N is passed to the function as argument.

Public members of the class BOOK are

INPUT() function to read BOOK_NO. BOOKTITLE, PRICE

PURCHASE() function to ask the user to input the number of copies to be purchased. It invokes TOTAL_COST() and prints the total cost to be paid by the user.

Note : You are also required to give detailed function definitions.

Q No.4 : Define a class REPORT with the following specification:

Private members :

adno   4 digit admission number

name   20 characters

marks   an array of 5 floating point values

average   average marks obtained

GETAVG()   a function to compute the average obtained in five subject

Public members:

READINFO()   function to accept values for adno, name, marks. Invoke the function **GETAVG()**

DISPLAYINFO()   function to display all data members of report on the screen.

You should give function definitions.

Q No.5: Write the definition for a class called **time** that has hours and minutes as integer. The class has the following member functions:

void settime(int, int) to set the specified value in object

void showtime() to display time object

time sum(time) to sum two time object & return time

1. Write the definitions for each of the above member functions.

2. Write main function to create three-time objects. Set the value in two objects and call sum() to calculate sum and assign it in third object. Display all time objects.