

Write well commented C++ Programs for the following:

1. Define a class Worker in C++ with the following specifications:

**A** Private data members

- wno of type integer
- wname of string type
- hours of type int
- rate of type int
- wage of type int

**B** Private member functions:

- **calc\_wage()** - to calculate wage of a worker as hours \* rate

**C** Public member functions:

- A function **enter\_worker()** () to allow the user to enter values for wno, wname, hours, rate and call function **calc\_wage()** to calculate the wage of a worker.
- A function **show\_worker()** to allow the user to view the content of all the data members of a worker.

**NOTE:**

Make the above code in two ways:

(A) Give member function definitions inside class, and

(B) Give member function definitions outside class.

[avoid]  
[always prefer]

2. Define a class **FLIGHT** in C++ with the following specifications:

Private data members

- Flightcode of type integer
- Destination of string type
- Distance of type float
- Fuel of type float

#### Private member functions:

- A function CALCFUEL() to calculate value of Fuel as per the following criteria:

<u>Distance</u>	<u>Fuel</u>
<=1000	500
More than 1000 and <=2000	1100
More than 2000	2200

#### Public member functions:

- A function FEEDINFO() to allow the user to enter values for Flightcode, Destination, Distance and call function CALCFUEL() to calculate the quantity of Fuel.
- A function SHOWINFO() to allow the user to view the content of all the data members.

### **3. Define a class SUPPLY in C++ with the following specifications:**

#### Private data members

- Code of type integer
- Foodname of type string
- Sticker of type string
- Foodtype of type string

#### Private member functions:

- A function gettype() to assign foodtype as per the following table:

<u>Sticker</u>	<u>Foodtype</u>
GREEN	Vegetarian
YELLOW	Contains egg
RED	Non-vegetarian

#### Public member functions:

- A function FOODIN() to allow the user to enter values for code, foodname, sticker and call function gettype() to assign respective Foodtype.
- A function FOODOUT() to display all the data members on screen.

### **4. Define a class PHOTO in C++ with the following specifications:**

#### Private data members

- Pno of integer type
- Category of string type

- Exhibit of string type

#### **Private member functions:**

- FixExhibit()

A method to assign Exhibition Gallery as per Category as shown in the following table:

Category	Exhibit
Antique	Zaveri
Modern	Johnsen
Classic	Terenida

#### **Public member functions:**

- Register()

A function to allow user to enter values of Pno, Category and call FixExhibit() method to assign the value of Exhibit.

- ViewAll()

A function to display all the data members.

### **5. Define a class CANDIDATE in C++ with the following specifications:**

#### **Private data members**

- Rno(Registration Number) type integer
- Cname of type string
- Agg\_marks (Aggregate Marks) of type float
- Grade of type character

#### **Private member functions:**

- setGrade () to find the grade as per the aggregate marks obtained by the student. Equivalent aggregate marks range and the respective grade as shown below.

Aggregate Marks	Grade
>=80	A
Less than 80 and >=65	B
Less than 65 and >=50	C
Less than 50	D

#### **Public member functions:**

- Getdata () to allow users to enter values for Rno. Cname, Agg\_marks and call function setGrade () to find the grade.
- dispResult( ) to allow user to view the content of all the data members.

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