PROGRAMMING EXERCISES

5.1 Define a class to represent a bank account. Include the following members:

Data members

(a) Name of the depositor
(b) Account number
(c) Type of account
(d) Balance amount in the account

Member functions

(a) To assign initial values
(b) To deposit an amount
(c) To withdraw an amount after checking the balance
(d) To display name and balance

Write a main program to test the program. WEB

5.2 Write a class to represent a vector (a series of float values). Include member functions to perform the following tasks:

(a) To create the vector

(b) To modify the value of a given element

(c) To multiply by a scalar value

(d) To display the vector in the form (10, 20, 30, ...)

Write a program to test your class.

5.3 Modify the class and the program of Exercise 5.11 for handling 10 customers. WEB

5.4 Modify the class and program of Exercise 5.12 such that the program would be able to add two vectors and display the resultant vector. (Note that we can pass objects as function arguments.)

5.5 Create two classes **DM** and **DB** which store the value of distances. **DM** stores distances in metres and centimetres and **DB** in feet and inches. Write a program that can read values for the class objects and add one object of **DM** with another object of **DB**. WEB

Use a friend function to carry out the addition operation. The object that stores the results may be a DM object or DB object, depending on the units in which the results are required.

The display should be in the format of feet and inches or metres and centimetres depending on the object on display.

5.6 Refer to Program 5.11 and write a function that receives two matrix objects as arguments and returns a new matrix object containing their multiplication result. WEB

5.7 Write a program to take the input of faculty details (ID, name, post, qualification, address) and display it.

5.6 Write a program to calculate simple and compound interest by using access operator.