

ASSIGNMENT (CEM251)

1. Define a class Bank_Account with Current and Saving bank accounts as its derived classes. Class Bank_Account should have following data members: Account_Number, Name, Balance_Amount and Member Functions: to Initialize the value, to Deposit and Withdraw amount after checking the minimum balance.
2. Write a C++ program to create a base class called STUDENT with private data members Name, Roll Number & Age and using inheritance create classes UG and PG having members as Semester, Fee and Stipend. Enter the data of 5 students and find the average age per semester for all UG and PG students separately.
3. Justify the following statement with the help of a suitable example:
“In a class hierarchy of many levels of if we want a function at any level to be called through a base class pointer then the function must be declared as virtual in the base class.”
4. Create a class TIME that has separate integer data members for Hour, Minutes and Seconds. Initialize these members to 0 using default constructor and to fixed values using parameterized constructor.
Create a member functions to display it, in 11:59:59 format and to add two objects of type TIME passed as arguments.
5. Define a class named ‘Train’ having data members Train Number, Source, Destination, Journey date, Capacity & member functions to initialize members, to input train data & to display data. Also create a friend function to display whether source & destination of two objects of class Train are same or not.