Lab#11
Object oriented programming.
10/01/2023

**Task#01**

A university is giving bonuses to its employees on a religious festival and you are asked to program for them. Create a base class Employee that has a function to display id(int), name(char),accno(int),designation(char)and a pure virtual function salary.

Create 2 derived classes: faculty and staff that calculate salaries according to designation. Add 10% increment on salary of staff and 20% on salary of faculty.

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**Task#02**

Write a C++ program with a class teacher that stores name and id of teacher and a class Courses that stores names of courses allotted to that teacher. Then delete a derived class object using a pointer of base class type.

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## Task#03

**(Sales Commission Calculator)** A large company pays its salespeople on a commission basis. The salespeople each receive $200 per week plus 9% of their gross sales for that week. For example, a salesperson who sells $5000 worth of chemicals in a week receives $200 plus 9% of $5000, or a total of $650.Create following classes:

**Worker:**

- ➔ char employee_name

- ➔ `int employee_number`
- ➔ `int salary`
- ➔ `int gross_sales`

**CommissionCalculator:**Derive class to calculates commission.

Delete a derived class object using a pointer of base class type.

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## Task#04

Write a C++ program for customer bank account with two types of account **current** and **saving**.

Create following classes:

1) **Bank**: that takes name(Char) and Account number(int)from user and have following pure virtual functions:
   a) account_balace().
   b) deposit()
   c) withdraw()
2) **Current account:**
   a) *account_balace()* shows available balance in the current account and must be initialized with 1000.
   b) *withdraw()*to withdraw amount from account if and only if available balance in account is greater than 1000, withdrawal amount is smaller than balance in account and after withdrawal at least 1000 is left in account else show insufficient balance.
   c) *deposit()* to deposit the amount in current balance.
3) **Saving account:**
   **a)** *account_balace()* shows available balance in the saving account and must be initialized with 1000.
   b) *deposit()*to deposit the amount in available balance and add interest rate with each deposit. Formula for interest calculation is **`interest = (sav_balance * 2) / 100;`**
   c) *withdraw()*to withdraw amount from account if and only if available balance in account is greater than 1000, withdrawal amount is smaller than balance in account and after withdrawal at least 1000 is left in account else show insufficient balance.

Delete a derived class object using a pointer of base class type.

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