**Object-Oriented Programming Lab#3**

**Today’s Topics**

* Class and Object
* Initialization of fields.
* Constructor

**Problems/Assignments**

**Problem#1**

Create a Banking System, where a user can create new account, deposit money, withdraw money and check the balance

What you need to do:

1. Create a **BankAccount** class which has **3 instance variables**; ***name***, ***id*** and ***balance***.
   1. Create a **constructor** that takes initial value for those 3 attributes and initializes those attributes.

Create the **following 4 methods** as described;

1. ***void deposit(double depAmount)***

* inside the method the balance need to be increased by the “depAmount” amount.

1. ***void withdraw(double withAmount)***

* the balance is decreased by “withAmount” amount. We have to make sure the balanced do not become negative.

1. ***double getBalance()***

* the method returns the balance.

1. ***void display()***

– this method displays the attributes in the format “Name:[name]; Id:[id]; Balance:[balance]”.

1. Now create another class **Bank** and implement the **main** method. In main method do the following.
   1. create an object of the BankAccount class
   2. withdraw some money
   3. display the balance
   4. deposit some money
   5. display the balance

**Problem#2**

Create an Employee Record System for “UAP HR” department. For simplicity we will work with one employee today. Each Employee is identified by **his/her name, employee id and position/designation**. Each employee is paid a fixed monthly **salary** regardless of the number of hours he/she worked. The System should be able **to check the salary of an employee, update the salary and view the employee** info.

What you need to do:

1. Create an **Employee** class which has **4 instance variables*; name, id, designation*** *and* ***salary***.
   1. Create a **constructor** that takes initial value for those 4 attributes and initializes those attributes.

Create the **following 4 methods as** described

1. ***void updateSalary(double newSal)***

* inside the method the salary attributes need to be set to this newSal.

1. ***double getSalary()***

* the method returns the salary.

1. ***void display()***

– this method displays the attributes in the format “Name:[name]; Id:[id]; Desig:[designation]; Salary:[salary]”.

1. Now create another class **UapHr** and implement the **main** method. In main method do the following.
   1. create an object of the Employee class
   2. display the salary
   3. update the salary by calling the updateSalary method.
   4. call the display method