CSE 1206
Java Practice Problems- Lab 3

1. Create a Java Project Named **"Office"**

2. Inside this project create a new class named "Staff"

3. Inside the Staff Class, create variables as follows:

    - public String officeName

    - private String firstName

    - private String lastName

    - private double monthlySalary

4. Inside the Staff class create an empty constructor.

5. Inside the Staff class, create a new constructor that takes only 1 String variable as parameter and assigns it to the public variable officeName. Like:

    this.officeName=officeName

6. Inside the Staff class create another constructor that takes the 2 String and 1 double variable and assigns them to the private variables.

    this.firstName= firstName

    this.lastName= lastName

    this.monthlySalary = monthlySalary

7. Inside the staff class declare the getter and setter methods for the <u>private variables only.</u>

8. Inside the staff class create a <u>public</u> method named AnnualSalary() which takes no parameter and returns double. This method calculates the total salary earned by a staff in a year. That is, 12*monthlySalary.

9. Now go to the class Office and declare a Scanner variable as:

    Scanner input = new Scanner (System.in).

10. Now go to Office Class. Use scanner class to take user input for office name, first name, last name and monthly salary of staff.

11. Inside the Office class create two Staff objects. One object uses the constructor having the office name only. Then just print the name of the office using obj1.OfficeName.

    Another object uses the constructor with 3 parameters. Use the user input variables in this constructor. (**obj2**)

12. Inside the Office class using the 2nd object, call the method AnnualSalary() to print the annual salary of the staff along with his/her first and last name.

Sample Input 1	Sample Output 1
Office Name: AUST First Name: Rahim Last Name: Ahmed Monthly Salary: 10000	Name of Office is AUST Annual Salary of Rahim Ahmed is 120000

13. Now use scanner class to take another user input for first name, last name and monthly salary of staff.
    Assign these values to the variables of the first object where you had used the constructor with 1 parameter, using setter methods.
                    obj1.setFirstName(firstNameInputVariable);

14. Go back to the Staff class and create another method named
                    public String matchStaffInfo(Staff obj)

    This method takes the 2nd object and compares with the first object and returns the following things under the given conditions.

If (firstName == obj.getFirstName())   return **"First Name of the staffs are similar, which is : " + firstName;**
OR If (lastName == obj.getLastName())   return **"Last Name of the staffs are similar, which is : " + lastName;**
OR If (monthlySalary == obj. getMonthlySalary())   return **"Monthly Salary of the staffs are similar, which is : " + monthlySalary;**

OR
If (firstName == getFirstName() && lastName == obj.getLastName())
        return **"Both first and last names of the staffs are similar, which are : " + firstName**
                + "   " + lastName;

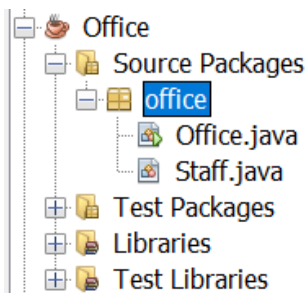| |
|---|
| OR
If (firstName == obj. getFirstName() && monthlySalary == obj. getMonthlySalary())
      return **"First name and Monthly Salary of the staffs are similar, which are : "** +
              firstName + "   Salary is " + monthlySalary; |
| OR
If (lastName == obj.getLastName() && monthlySalary == obj. getMonthlySalary())
      return **"Last name and Monthly Salary of the staffs are similar, which are : "** +
              lastName + "   Salary is " + monthlySalary; |
| OR
If (firstName == getFirstName() && lastName == obj.getLastName()
                             && monthlySalary == obj. getMonthlySalary())
      return **"All Information of the staffs are similar, which are : "** +
           + firstName + "   " + lastName + "   Salary is " + monthlySalary; |

15. Finally call the method matchStaffInfo() in the Office class like this:
System.out.println(obj1.matchStaffInfo(obj2));

Project Folder Should be like this:

Sample View of Office Class:

```java
package office;
import java.util.Scanner;

public class Office {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        //initializing the variables
        String fname=null,lname=null;
        double salary=0;

        System.out.print("Enter First Name: ");
        fname = input.nextLine();

        System.out.print("Enter Last Name: ");
        lname = input.nextLine();

        System.out.print("Enter Monthly Salary: ");
        salary = input.nextDouble();

        /*Calculate the Annual Salary of the staff using the
          method AnnualSalary() from the Staff class. Print the result
          with full name of the Staff.
        */



    }

}
```

Sample View of Staff Class:

```java
package office;
public class Staff {

    /* Write the Necessary Varibales, Constructors,
      Getter and Setter Methods and Other Methods Here*/



}
```