PROGRAM 2

**2.A)**

Design a superclass called Staff with details as Staff ID, Name, Phone, Salary. Extend this class by writing three subclasses namely Teaching (domain, publications) Technical (skills), and Contract (period). Write a Java program to read and display at least 3 staff objects of all three categories.

package labprograms;

import java.util.\*;

public class p2a {

public static void main(String[] args) {

Teaching teach=new Teaching();

Technical tech=new Technical();

Contract cont=new Contract();

System.out.println("Input teaching staff details : ");

teach.read();

System.out.println("\n\nInput technical staff details : ");

tech.read();

System.out.println("\n\nInput contract staff details : ");

cont.read();

System.out.println("\nHere is the teaching staff details : ");

teach.display();

System.out.println("\nHere is the technical staff details : ");

tech.display();

System.out.println("\nHere is the Contract staff details : ");

cont.display();

}

}

class Staff

{

String name,phone;

int sid,sal;

Scanner sc=new Scanner(System.in);

void read()

{

System.out.print("Staff ID : ");

sid=sc.nextInt();

System.out.print("Name : ");

name=sc.next();

System.out.print("Phone Number : ");

phone=sc.next();

System.out.print("Salary : ");

sal=sc.nextInt();

sc.nextLine();

}

void display()

{

System.out.println("Staff ID : "+sid);

System.out.println("Name : "+name);

System.out.println("Phone Number : "+phone);

System.out.println("Salary : "+sal);

}

}

class Teaching extends Staff

{

String domain;

int publication;

void read()

{

super.read();

System.out.print("Domain : ");

domain=sc.nextLine();

System.out.print("Publications : ");

publication=sc.nextInt();

}

void display()

{

super.display();

System.out.println("Domain : "+domain);

System.out.println("Publications : "+publication);

}

}

class Technical extends Staff

{

String[] skills;

void read()

{

super.read();

System.out.print("Skills : ");

skills=sc.nextLine().split(",");

}

void display()

{

super.display();

System.out.print("Skills : ");

for(int i=0;i<skills.length;i++)

System.out.print(skills[i]+",");

System.out.println();

}

}

class Contract extends Staff {

int period;

void read()

{

super.read();

System.out.print("Contract Period : ");

period=sc.nextInt();

}

void display() {

super.display();

System.out.println("Contract Period : "+period);

}

}

**2.B)**

Write a Java class called Customer to store their name and date\_of\_birth. The date\_of\_birth format should be dd/mm/yyyy. Write methods to read customer data as <name, dd/mm/yyyy> and display as <name, dd, mm, yyyy> using StringTokenizer class considering the delimiter character as “/”.

package labprograms;

import java.util.\*;

public class p2b {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

Customer cust=new Customer();

System.out.println("Sample Input : XYZ,12/12/2010");

System.out.println("+++++++++++++++++++++++++++++++\nEnter customer data (name,dd/mm/yyyy) : ");

String data=sc.next();

cust.readdata(data);

System.out.println("Customer Data is : ");

cust.displaydata(cust);

sc.close();

}

}

class Customer {

String name,dob;

public void readdata(String custdata)

{

String[] dataarray=custdata.split(",");

this.name=dataarray[0];

this.dob=dataarray[1];

}

public void displaydata(Customer cust)

{

StringTokenizer str=new StringTokenizer(cust.dob,"/");

System.out.println(this.name+","+str.nextToken()+","+str.nextToken()+","+str.nextToken());

}

}