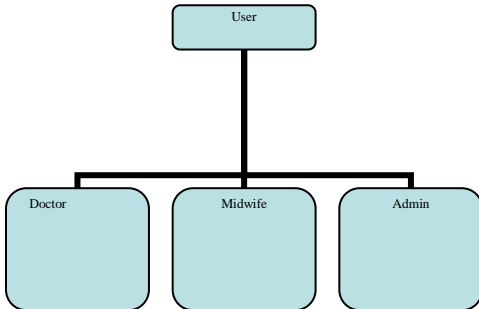


NAME: _____

Test 4 – 20 points Total

DATE: Thursday, April 28, 2016

On my Birthing website, I keep track of three type of users – Midwives, Doctors, and Admin. . All users inherit some properties from parent User



a. Write the complete class declaration for the class Midwife. Midwives are Users, but all midwives also keep track of their ACNM number. It will include all necessary instance variables and implementation of its constructors and methods so that it will compile.

```
public abstract class User
{
    private String name;
    private int id;
    private int numberOfBirths;
    private double rate;

    public User(String name, double rate)
    {
        Implementation hidden
    }
    // returns the title of this item
    public String getName ()
    {
        Implementation hidden
    }
    // returns the price of this item
    public double getNumberOfBirths()
    {
        return numberOfBirths;
    }
    // sells quantity items
    public void getRate()
    {
        Implementation hidden
    }
    //returns the info of this User
    public abstract String getInfo ();
}
}
```

b. Consider the following DB class, which has all users.

Create the method `updateDB(int birthLimit)` that will double the rate of all users that have more than `birthLimit` births and remove all users that have no births.

```
public class Warehouse
{
    private ArrayList<User> allUsers;

    //constructors and other methods not shown

    // double the rate of all users that have more than birthLimit births and remove all users that have no
    births.

    public void updateDB(int birthLimit)    {
        //to be implemented in b
    }

    // returns an ArrayList of all midwives that have delivered more than 100 births.
    public ArrayList<Users> activeMidwives ()
    {
        // to be implemented in c
    }
}
```

c. Extra credit: Create a method `activeMidwives` that will return an `ArrayList` of all midwives that have delivered more than 100 births.

