

```
public class Patient { // make this a derived class of Person

    /* In addition to the attributes of a Person, a Patient has
       a patient ID number and a primary care provider
    */
    /*
       create a default constructor and a constructor that
       sets the value of the patient's name, gender, birthdate, and
       patient id number
    */
    // put get and set methods for each attribute of Patient here

    public void writeOutput()
    {
        /*
           The writeOutput() method for a Patient should print values
           related to the patient attributes in addition to the original
           statements from the parent Person class, e.g.:
           Ms. Mona Chang is 20 years and 5 months old.
           Her primary care physician is Dr. Corbin Dallas and
           her patient ID number is 00-55-1212.
        */
    }
}

public class Person {
    private String firstName;
    private String lastName;
    private String gender;
    private GregorianCalendar dateOfBirth;

    Person()
    {
        // set all instance variables to null
    }

    Person(String fName, String lName, String gdr, GregorianCalendar
    dob)
    {
        // set values of each instance variable
    }

    // put get and set methods for each attribute here

    public void writeOutput()
    {
        /* Print details about the person as follows:
           For a person with first name Mona, last name Chang, whose gender
           is female, and date of birth is April 15th 1981, writeOutput()
           should print the following:
           Ms. Mona Chang is 20 years and 5 months old.
           This implies that a person's title (Mr. or Ms.) in writeOutput()
           depends on his/her gender.
        */
    }
}

public class Physician { // make this a derived class of Person

    /* In addition to the attributes of a Person, a Physician has
       an array of at most 15 patients, an array of at most 15
    messages,
       and a specialty (e.g. surgeon, internist, neurologist, etc.)
    */
    /*
       create a default constructor and a constructor that
       sets the value of the Physician's name, gender, birthdate, and
       specialty
    */
    // put get and set methods for each attribute of Physician here

    public void writeOutput()
    {
        /*
           The writeOutput() method for a Physician should print values
           related to the Physician's attributes and none from the original
           parent class e.g.:
           Dr. Corbin Dallas is a neurologist and cares for 20 patients
        */
    }

    public void addMessage(String msg)
    {
        // add a message to the Physician's array of messages, making
        // sure that the total number of messages added does not exceed 15
    }
}
```

```
}

public class LabTest {

    /*
    Use the tables provided in the homework question to come up
    with
    attributes, constructors, and other methods for the LabTest
    class. Make sure to include the patient ID to identify each lab test/result.
    */

    // create set and get methods for each attribute

    public void writeOutput()
    {
        /*
        The writeOutput() method for a LabTest should print out the
        test's name, date and value
        */
    }
}

public class LabTable {

    /* The Lab contains an array of all LabTests. Methods should be developed to add a LabTest into the LabTable and to get a LabTest using a Patient
    ID#. */

    public void writeOutput()
    {

        /* This should print how many LabTests are in the table. */

    }
}
```