Frist Quiz

You have 15 minutes from the start of class to complete this quiz. Read the questions with care; work with deliberate speed. Don’t give us more than we ask for. The usual instructions apply. Good luck!

Problem 1 (12 points)

Suppose you’re automating the medical records of a hospital. Write a complete definition of the class Patient; it should include each of the following components

• Fields for the patient’s name, ID, doctor’s name (all Strings), and current amount due (in cents)
• A constructor function that fills all the fields with its arguments
• Accessor (getter) functions for each of the fields
• A toString function that returns the patient information in this form (assuming that the patient with ID 34567 is named Peter Patient, his doctor is Pauline Phrenologist, and he owes $456.78):

  [ID 34567] Peter Patient (Dr. Pauline Phrenologist): $456.78

  (Note that the strings “ID” and “Dr.” are not stored in the fields of the Patient class.)

We have provide a copy of the restaurants program as a reference.
Problem 2 (10 points)

Your hospital management program will also have a class PatientList for the collection of patients. Write the method totalDueForDoctor as described below. Assume the PatientList class has a field called thePatients that contains an ArrayList of all the patients.

// Return the total amount due from all patients of the specified doctor
public int totalDueForDoctor (String doc) {
    private int total = 0; // 1 point for initialization
    for (Patient p : thePatients) { // 2 points for a loop over all the patients (any correct form OK)
        if (p.getDoctor().equals(doc))  // 3 points for comparing arg with doctor's name
            total = total + p.getAmountDue();  // 3 points for accumulating total.
    }
    return total; // 1 point for returning correct value
}