PYTHON  
1. Four classes have been created in this PYTHON project.  
Draw a class diagram in the space below showing the classes  
(including their attributes and methods) and relationships.  
  
(1 mark)  
  
  
PYTHON  
2. In the setup method of the Controller class write code that to create the following Doctors using the add\_doctor method that exists in the Hospital class.  
  
  
ID Last Name First Name Office Fees  
11 Xu Jian N400 $50  
13 John Emily W7 $25  
12 Kumar Santosh A22 $40  
  
  
NOTE: the defect in this data is deliberate – fix it!  
  
(2 marks)  
  
  
PYTHON  
3. Write a get\_doctors method for Hospital class that displays data about the Doctors.  
  
The required output is:  
  
Xu, Jian  
John, Emily  
Kumar, Santosh  
  
NOTE: Punctuation and spacing and ORDER must also be as shown above.  
  
(3 marks)  
  
  
PYTHON  
4. Write an add\_patient method for the Doctor class that can be used to create a new Patient.  
Note: You will need to add some code in the Patient class as well.  
  
(4 marks)  
  
PYTHON  
5. In the setup method of the Controller class write code to create the following Patient, using the add\_patient method that has been created previously.  
NOTE: You will have to use the find\_doctor method in the Hospital class  
  
ID Last Name First Name Fees Owing Doctor ID  
200 Fisher Shelley 0 11  
400 Koirala Kimi 25 12  
300 Chen Liang 40 12  
500 Ahmed Riyaz 0 13  
100 Knightly Jude 30 11  
  
  
(5 marks)  
  
PYTHON  
6. Write a boolean get method named has\_two\_patients in the Doctor class that returns true if these people are billable patients and false otherwise.  
  
(2 marks)  
  
PYTHON  
7. Write a get\_those\_with\_two\_patients method for the Hospital class that first lists for each Doctor who has billable patients, the Doctor's details and then lists underneath the details of the Patient as shown below.  
This method must call the method created in the previous question.  
The required output is:  
  
Xu, Jian [11]  
 200, Fisher, Shelley, 0   
 100, Knightly, Jude, 30   
  
NOTE: The order shown above is the required order. Punctuation and spacing must also be as shown above.  
  
(8 marks)  
  
HOW TO SUBMIT YOUR COMPLETED TEST  
When you have finished the test, zip and send. /src folder to the digital drop box on Moodle.  
You must check with one of the tutors that this has been done properly before you leave the room.  
If your work has not been loaded into digital drop box while you are in the room your test will not be marked.