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 owners using the add\_owner method that exists in the Kennel class.  
  
  
ID First Name Last Name Birth Date  
BMC Brad McCaw 12/13/1982  
RTH Richie Thorn 8/05/1980  
DEL Dan Ellis 16/02/1984  
ACR Andrew Carter 30/11/1987  
  
  
NOTE: the defect in this data is deliberate – fix it!  
  
(2 marks)  
  
  
PYTHON  
3. Write a get\_owners method for Kennel class that displays data about the owners.  
  
The required output is:  
  
Andrew, Carter [ACR]  
Brad, McCaw [BMC]  
Dan, Ellis [DEL]  
Richie, Thorn [RTH]  
  
NOTE: Punctuation and spacing and ORDER must also be as shown above.  
  
(3 marks)  
  
  
PYTHON  
4. Write an add\_dog method for the owner class that can be used to create a new Dog.  
Note: You will need to add some code in the Dog class as well.  
  
(4 marks)  
  
PYTHON  
5. In the setup method of the Controller class write code to create the following Dog, using the add\_dog method that has been created previously.  
NOTE: You will have to use the find\_owner method in the Kennel class  
  
DogOwnerID Name Breed Gender Favorite Food  
BMC Speedy Pomeranian N Ekanuba  
RTH Victor Beagle M Chef  
RTH Killer Mastiff N Purina  
DEL Ruftero Poodle F Ekanuba  
DEL Sausage Dachshund F Purina  
ACR Random Mastiff F Cat  
  
  
(5 marks)  
  
PYTHON  
6. Write a boolean get method named has\_one\_dog in the owner class that returns true if the number of dogs that person owns is one and false otherwise.  
  
(2 marks)  
  
PYTHON  
7. Write a get\_those\_with\_one\_dog method for the Kennel class that first lists for each owner who has exactly one dog, the owner's details and then lists underneath the details of the Dog as shown below.  
This method must call the method created in the previous question.  
The required output is:  
  
Andrew, Carter [ACR]  
 Random (F) the Mastiff likes to eat Cat  
Brad, McCaw [BMC]  
 Speedy (N) the Pomeranian likes to eat Ekanuba   
  
NOTE: The order shown above is the required order. Punctuation and spacing must also be as shown above.  
  
(8 marks)