JAVASCRIPT  
1. Four classes have been created in this JAVASCRIPT project.  
Draw a class diagram in the space below showing the classes  
(including their attributes and methods) and relationships.  
  
(1 mark)  
  
  
JAVASCRIPT  
2. In the setup method of the Controller class write code that to create the following Donors using the addDonor method that exists in the BloodBank class.  
  
  
NationalID First Name Last Name Gender  
9800100 Jonathan Watts M  
4023500 Sandy Moore F  
7906553 John Burk M  
5000990 Daniel McDonald M  
6896701 Cathy Watson F  
  
  
NOTE: the defect in this data is deliberate – fix it!  
  
(2 marks)  
  
  
JAVASCRIPT  
3. Write a displayDonors method for BloodBank class that displays data about the Donors.  
  
The required output is:  
  
Watts, Jonathan [M]  
Moore, Sandy [F]  
Burk, John [M]  
McDonald, Daniel [M]  
Waterson, Cathy [F]  
  
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)  
  
JAVASCRIPT  
7. Write a displayPositiveDonations method for the BloodBank class that first lists for each Donor who who has positive blood group, the Donor's details and then lists underneath the details of the Donation as shown below.  
This method must call the method created in the previous question.  
The required output is:  
  
Moore, Sandy [F]  
 Has blood group <AB+> donated on 12/1/2018 at Christchurch  
Watson, Cathy [F]  
 Has blood group <O+> donated on 7/15/2019 at Auckland  
Watts, Jonathan [M]  
 Has blood group <AB+> donated on 11/9/2017 at Nelson  
 Has blood group <AB+> donated on 10/5/2019 at Otago  
  
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.