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Object Oriented Analysis and Design

Project part 6

1.

User Requirements			
ID	Requirement	Actor	Priority
UR-001	As a staff member, I want to be able to add and subtract animals from the database	Staff	High
UR-002	I want to be able to view the available pets	All	High
UR-003	I want to be able to log in as either a customer or staff depending on credentials	Staff/Customers	High

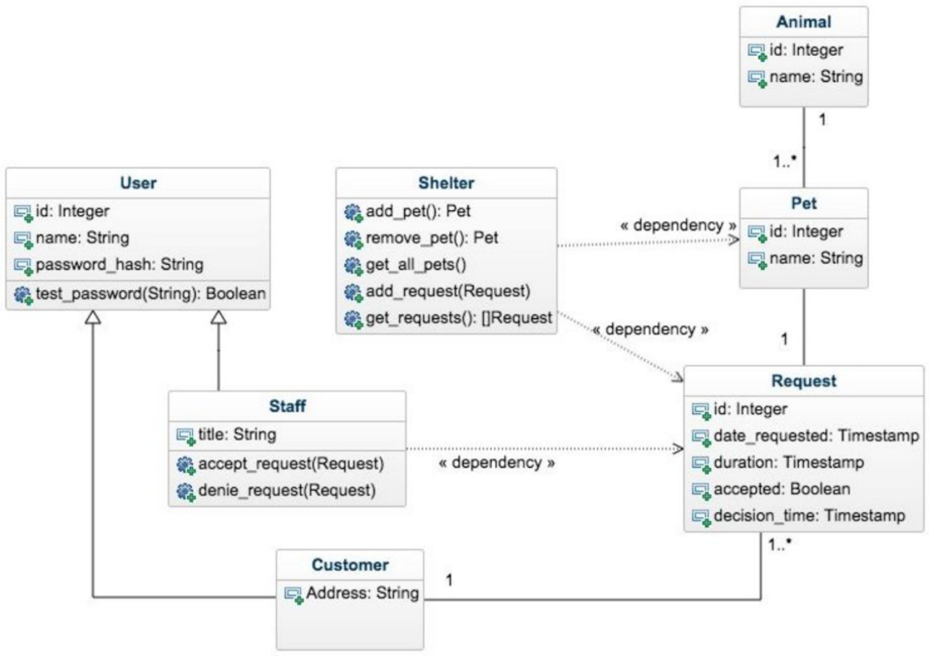
2.

UR-004	As a customer I want to be able to apply to adopt a certain pet	Customer	High
UR-005	As a staff member I want to be able to accept or deny an adoption request	Staff	High
UR-006	As a customer I want to be able to	Customer	Medium

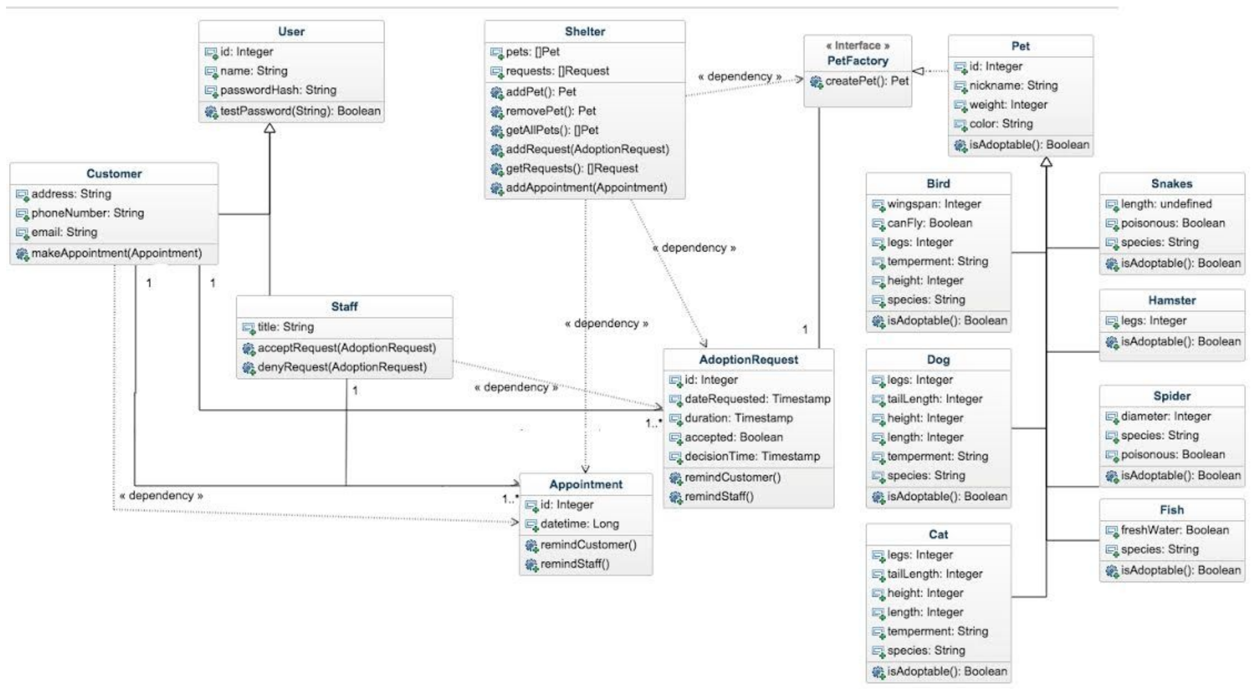
	schedule an appointment to see my new pet at the shelter.		

3.

Part 2 class diagram:



Final class diagram:



What changed: In our part 2 class diagram we did not include specific pet classes and only had one generic animal class. In part 3 we added specific pet classes and used a factory design pattern to implement them. This was done to narrow our focus on the animals and have our pet system be more organized and robust. Another thing we added was the appointment class to better connect customers and the system. Next we added methods and attributes to every class to ensure every class is useful and complete.

4.

The design pattern that we chose to implement in our project was the factory method. We chose this method because it made our code more reusable and flexible. If more animals were added to our system, the shelter class would not need to be changed since the object creation is encapsulated in our factory class. So overall it made our code much easier to modify as well as being more organized.

5.

We have learned quite a bit about what goes into the design and the analysis of a system in creating PetGet. Regarding design, one thing we learned was that there is much more than meets the eye. The classes in systems are not made arbitrarily or with little thought. Design patterns are often applied or there are design choices to increase cohesion and reduce coupling. Also, we learned that there is a lot that goes into the analysis of Systems. We learned there are numerous UML charts that can be applied to systems to model how they work in many different contexts. For example, there are UML charts that model the business workflow with activity diagrams, or UML diagrams to show the structure of the system with class diagrams. Overall, a whole other aspect of computer science has been taught to us with this class that will help us as we move into the field.