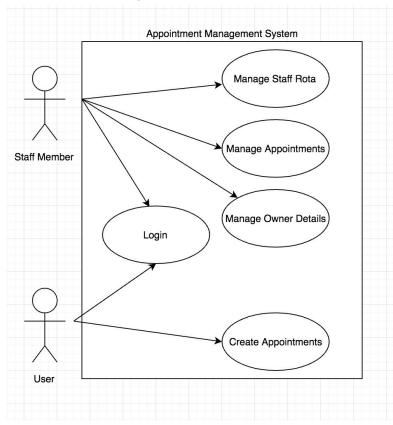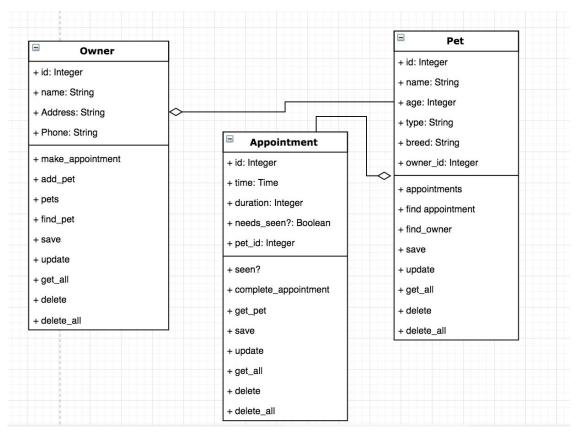<u>Chris Hunter - Analysis and Design Unit (SQA PDA: Software Development)</u>
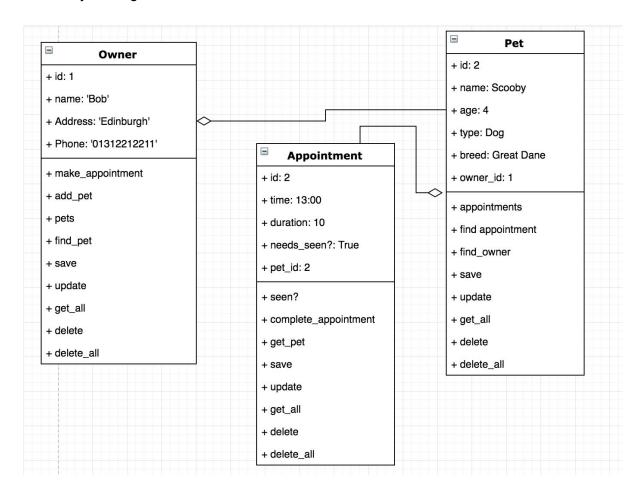
A.D 1 Use Case Diagram
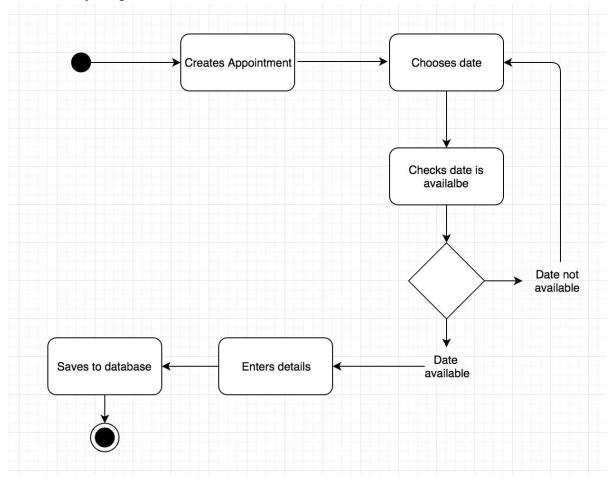

A.D 2 Class Diagram

Owner

+ id: Integer

+ name: String

+ Address: String

+ Phone: String

+ make_appointment

+ add_pet

+ pets

+ find_pet

+ save

+ update

+ get_all

+ delete

+ delete_all

Appointment

+ id: Integer

+ time: Time

+ duration: Integer

+ needs_seen?: Boolean

+ pet_id: Integer

+ seen?

+ complete_appointment

+ get_pet

+ save

+ update

+ get_all

+ delete

+ delete_all

Pet

+ id: Integer

+ name: String

+ age: Integer

+ type: String

+ breed: String

+ owner_id: Integer

+ appointments

+ find appointment

+ find_owner

+ save

+ update

+ get_all

+ delete

+ delete_all

A.D 3 Object Diagram

Owner

+ id: 1

+ name: 'Bob'

+ Address: 'Edinburgh'

+ Phone: '01312212211'

+ make_appointment

+ add_pet

+ pets

+ find_pet

+ save

+ update

+ get_all

+ delete

+ delete_all

Appointment

+ id: 2

+ time: 13:00

+ duration: 10

+ needs_seen?: True

+ pet_id: 2

+ seen?

+ complete_appointment

+ get_pet

+ save

+ update

+ get_all

+ delete

+ delete_all

Pet

+ id: 2

+ name: Scooby

+ age: 4

+ type: Dog

+ breed: Great Dane

+ owner_id: 1

+ appointments

+ find appointment

+ find_owner

+ save

+ update

+ get_all

+ delete

+ delete_all

A.D 4 Activity Diagram

A.D 6 Implementations constraint plan

Constraint	Possible Effect of Constraint on Product	Solution
Hardware and software platforms	Not compatible with phones or tablets. This would restrict users to using a desktop computer and stop them from making appointments while away.	Build a follow up app that allows mobile users to use the product.
Performance Requirements	Slow server would limit the number of users being able to book appointments at once. This would frustrate the user.	Upgrade to a faster server
Persistent Storage and	The database may have	The clients could be sent an

Transactions	limited storage meaning the database will have to be purged of clients. This may annoy users if they have been removed from the system.	email regularly asking if they still want to use the company, if not they will be removed from the database.
Usability	Product Style/CSS is not setup for mobile devices. This will stop mobile users being able to use the site.	Use Responsive design
Budgets	Budget for one server. Stopping users from using the system while maintaining the server.	Create a local version of the app which updates the server when available but saves the data locally first.
Time	Appointment system doesn't have all the planned features. This may stop users being able to use the system as effectively.	Focus on time management and MVP