## Product Requirements Document

Project 2:

Animal Shelter Management System

*ENGI-3675 WA  
Database Systems*

*Group 2:*

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**Objective**

This objective of this project is to create a web solution to manage animals for an Animal Shelter that works in Chrome (v39) and Internet Explorer (v11). This will be implemented by a CRUD interface in ASP displaying a dynamic table that would allow a user to insert or delete animals and to update the attributes of existing animals. The solution should be resistant against injection attacks by implementing prepared statements and produce a web solution that adheres to w3 HTML5 web standards.

**Design Mockup**



*\*Additional images and stylesheet can be found in scripts*

**Data model**

Each animal will be represented by an entry within the table with the following attributes:

* Serial\_Number (integer/primary key)
* Breed (text not empty)
* Weight(float/real) between 0 and 500
* Age(float/real) between 0 and 100

public class Animal

{

public string AnimalBreed;

public double AnimalAge;

public double AnimalWeight;

}

**ASP CRUD implementation**

Separate CRUD from ASP by using a CRUD C# functions that utilize dictionary<Int, ClassAnimal> to return objects and interact with the database.

Create  
 Function: datanew(AnimalClass)  
 Return: Int

Read  
 Function: datadict()  
 Return: Dictionary<int, AnimalClass>

Update  
 Function: dataupdate(keyvaluepair<int,AnimalClass>  
 Return: Int

Delete  
 Function: datadel(int)  
 Return: Int

These functions are used by ASP to generate the webform and unittests.