**CSI 405 – Final Project**

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Classes:

Amphibian, Bird, Fish, Reptile, Mammal – All the different types of animals that share common traits from the Animal class as well as some unique traits.

Zoo – Class that will hold all animals in a zoo (using composition) and perform functions on them (using generic methods, enhanced for loops, and type casting).

Test – Driver class to display functionality of all classes.

Interfaces:

Traits – Used to establish a method that will be used by all animal subtype class.

Abstract Classes:

Animal – A template class for all animal subtypes (they will inherit this class).

Data Structures:

Array List – An array list of animals that will be contained in the zoo class. Will use polymorphism to achieve this.

Enums:

AnimalType – An enum used in the Animal class to make it easier to find specific types of animals while looping through all.

Design Patterns:

Façade – Used with the Traits interface and all animal type classes (Amphibian, Bird, Fish, Mammal, and Reptile).

Template(Abstract) – Used with the abstract class Animal and the animal type classes that extend Animal (Amphibian, Bird, Fish, Mammal, and Reptile).