# CS 340 README Template

## About the Project/Project Title

*This project is a system designed to help Grazioso Salvare, an international rescue-animal training company, identify and categorize potential dogs from a nonprofit organization operating five animal shelters in Austin, Texas.* The primary goal is to facilitate the identification of suitable candidates for search-and-rescue training based on specific criteria, including age, breed, and rescue proficiency.

## Motivation

Grazioso Salvare seeks a software solution to efficiently process data from animal shelters, identifying dogs with profiles suitable for search-and-rescue training. The motivation behind this module is to provide a robust and customizable tool that streamlines the identification and categorization process.

## Getting Started

*To set up the project locally, follow these steps:*

1. *Clone the repository:*

*git clone https://github.com/PurePotato/SNHUClientServerDev.git*

## Installation

The following tools were used to create the CRUD Module and Grazioso Salvare Dashboard:

* Python
  + Installation is available from the official Python website.
* MongoDB
  + Installation is available from the official MongoDB website.
* Jupyter Notebook
  + Installation available after Python installed via the Python Package Index

## Usage

*Create (C) Operation*

*def create(self, data):*

*try:*

*if data is not None:*

*self.collection.insert\_one(data) # data should be dictionary*

*return True*

*else:*

*return False*

*raise Exception("Nothing to save, because data parameter is empty")*

*except Exception as e:*

*print(f"Error during insert: {e}")*

*return False*

from CRUD import AnimalShelter

animal\_shelter = AnimalShelter()

# Example for create method

data = {'name': 'Fluffy', 'type': 'Cat', 'age': 3}

insert\_result = animal\_shelter.create(data)

print(f"Insert result: {insert\_result}")

Insert result: True

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## Read (R) Operation:

def read(self, query):

try:

cursor = self.collection.find(query)

return list(cursor)

except Exception as e:

print(f"Error during query: {e}")

from CRUD import AnimalShelter

animal\_shelter = AnimalShelter()

# Example for read method

query\_params = {'animal\_type': 'Cat'}

documents = animal\_shelter.read(query\_params)

print(f"Matching documents: {documents}")

Matching documents: [{'\_id': ObjectId('6551a4d4134b26bd7de43609'), 'rec\_num': 2, 'age\_upon\_outcome': '1 year', 'animal\_id': 'A725717', 'animal\_type': 'Cat', 'breed': 'Domestic Shorthair Mix', 'color': 'Silver Tabby', 'date\_of\_birth': '2015-05-02', 'datetime': '2016-05-06 10:49:00', 'monthyear': '2016-05-06T10:49:00', 'name': '', 'outcome\_subtype': 'SCRP', 'outcome\_type': 'Transfer', 'sex\_upon\_outcome': 'Spayed Female', 'location\_lat': 30.6525984560228, 'location\_long': -97.7419963476444, 'age\_upon\_outcome\_in\_weeks': 52.9215277777778}]

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## Update (U) Operation:

def update(self, query, update\_data):

try:

result = self.collection.update\_many(query, {"$set": update\_data})

return result.modified\_count

except Exception as e:

print(f"Error during update: {e}")

return 0

from CRUD import AnimalShelter

animal\_shelter = AnimalShelter()

update\_params = {'name': 'Fluffy', 'type': 'Cat'}

updated = animal\_shelter.update(update\_params, {'age': 7})

print(f"Updated documents: {updated}")

Updated documents: 24

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## Delete (D) Operation:

def delete(self, query):

try:

result = self.collection.delete\_many(query)

return result.deleted\_count

except Exception as e:

print(f"Error during delete: {e}")

return 0

from CRUD import AnimalShelter

animal\_shelter = AnimalShelter()

## # Example for delete method

## delete\_query = {"animal\_type" : "Cat","animal\_id": "A725717"}

## delete\_result = animal\_shelter.delete(delete\_query)

## print ("Animals Deleted: ", delete\_result)

Animals Deleted: 0

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## Contact

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