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CS 499

**Project Three: Databases**

This project I wanted to make a database for the Pet Bag hotel. I wanted the employee to have the ability to enter client information such as name, address, phone number, and e-mail. This would make it possible for the hotel to contact clients if something happened. The Pet Bag database fulfills the requirement for Databases in the computer science program.

**[CS-499-01] Employ strategies for building collaborative environments that enable diverse audiences to support organizational decision making in the field of computer science.**

* This database creates a collaborative environment by allowing the employee of the Pet Bag Hotel to enter in customer information and pet information to store into the servers. Having this available will help the hotel better collaborate with clients and their pets to fulfill their needs. The employees will have the option to update client information or delete their information.

**[CS-499-02] Design, develop, and deliver professional-quality oral, written, and visual communications that are coherent, technically sound, and appropriately adapted to specific audiences and contexts.**

* This database program has well organized steps of how to enter client information. The code has easy to understand comments above each line to let future users know what is being done. The Pet Bag database can be used by any audience if they follow the prompts on the screen.

**[CS-499-03] Design and evaluate computing solutions that solve a given problem using algorithmic principles and computer science practices and standards appropriate to its solution, while managing the trade-offs involved in design choices (data structures and algorithms).**

* The Pet Bag Database evaluates the user input and solves the problem by organizing that input into a presentable table. The database allows the hotel employee to pull information on the client or their pet. With in the database there is a pet table and a client table. Each table can synchronize information by assigning the pet the same address or phone number as their owner. This allows the employee to quickly update or delete any information as needed.

**[CS-499-04] Demonstrate an ability to use well-founded and innovative techniques, skills, and tools in computing practices for the purpose of implementing computer solutions that deliver value and accomplish industry-specific goals (software engineering/design/database**).

* This database demonstrates the ability to use well-founded and innovative techniques by giving the hotel employees the ability to update and delete information of clients and pets when needed. The goal of this database is to synchronize the information of the Pet Bag program into the storage server of the Hotel. Then use that information of the hotel’s clients to promote sales and ideas.

**[CS-499-05] Develop a security mindset that anticipates adversarial exploits in software architecture and designs to expose potential vulnerabilities, mitigate design flaws, and ensure privacy and enhanced security of data and resources.**

* Pet Bag Database fulfills this by only allowing Pet Bag Hotel employees access to the program. It can only be viewed with proper username and passwords. The server the database is on would be a private server and secure. Information would not be shared with anyone but the client and hotel employee. Keeping SQL commands simple and direct will help eliminate unwanted errors.