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02/17/2026

CIS 344

Project 1

Nonprofit Animal Rescue Database System

Mini World Description

This project is about an animal rescue organization. This organization helps animals get adopted and keeps track of payments. The system has to keep track of people who adopt animals, animals that are available for adoption, and payments made for adoption fees. The goal is to make the adoption process clear and easy to understand. Each time someone adopts an animal, it is connected to that person. Can include one or more animals. Payments are also recorded so that financial transactions are properly tracked.

Process Documentation and Design Decisions

To design this system, I thought about how a real animal rescue organization works. I considered the steps involved when someone adopts an animal and how that information would be stored. I realized that the system must track people who adopt animals, animals, adoptions, and payments separately to stay organized. So I created tables for each of these things and connected them using foreign keys. This way, your data stays consistent, and relationships between people, animals, and adoptions are clear.

System Design Explanation

The Nonprofit Animal Rescue Database System has a table for people who adopt animals, which is called the Adopter table. The Animal table has information about animals that are available for adoption, including what kind of animal they are and how much it costs to adopt them. The Adoption table records each time someone adopts an animal and connects it to the person who adopted. The AdoptionItem table allows for one adoption to include more than one animal if needed. The DonationPayment table records the payment for each adoption. Each table has a key to identify each record. Foreign keys connect the tables. Make sure that adoptions are connected to real people and payments are connected to real adoptions. This means that adoptions cannot happen without a person, and payments are always connected to a real adoption. I used MySQL Workbench to create the database. It worked without errors.

Final Reflection and Outcome

I created a relational database system for the Nonprofit Animal Rescue Database System from start to finish. I made diagrams to show the entities and relationships in the database. The database was built with the data types, primary keys, foreign keys, and constraints to make sure it is reliable and accurate. The SQL script worked without errors. Overall, this project shows that I can design, build, and document a database system that's like a real-world nonprofit animal rescue operation. The Nonprofit Animal Rescue Database System is a system that can be used by a real animal rescue organization.