

Runtime Terror

CS-470 Group Project
Prof. Kendall Bingham

Runtime Terror

Group Members: Ozzie Loewen, Ami Khalsa, Brad Starnes, & Saurav Pawar

Computer Science 470 Introduction to Database Management Systems

Professor Kendall Bingham

Idea

Our initial group idea was to work on a project that held some interest to us. All of us having a special love for our furry friends decided upon an animal shelter and tracking the relationships between the pets, workers, volunteers, customers, and donors.

The animal shelter database that tracks the interactions amongst the employees, volunteers, customers, and donors. Tracking things like salaries, employee and volunteer interaction with pets, customer purchases, and donations. The user interface was made to be a site for the people at the shelter to add and update information when necessary. It was decided to only be able to delete volunteers from the user interface itself, for employees or donors the information must be updated through the backend of the project using the SQL query or phpmyadmin. The discussion about the amount of control that wanted to given on the site was one that would normally be answered by a product owner. It depends on how much control they wanted their workers to have. For the sake of our project we agreed that demonstrating that their could be information deleted from the site was a good idea, but left 'Employee' unable to delete from the user interface.

Home
Donors
Customers
Volunteers
Employees
Dogs
Cats
Adoption Records

Employees

A list of our Employees can be found here

ID	Address	Salary	F_Name	L_Name
1	19 Cactus Street, Barborton, KS 44203	65000	Angelica	Lewis
2	1 Silver Spear Ave., Easley, KS 29640	65000	Steven	Gill
3	8028 Poor House St., Kansas City, MO 33904	65000	Maria	Nunez
4	9455 Adams St., Raytown, MO 46123	65000	Shirley	Jones
5	686 Ashley Rd., Independence, MO 76901	65000	Sarah	McCormick
6	60 N. Marconi St., Grandview, MO 32703	82000	Laverne	Payne
7	393 Ramblewood Lane, Shawnee, KS 17543	65000	Kelli	Barnett
8	9415 S. Iroquois St., Shawnee, KS 11418	82000	Dwight	Dawson
9	9407 S. Wood Dr., Grandview, MO 37086	65000	Guy	Fuller
10	89 West Cypress Circle, Sanford, MO 27330	65000	Pat	Walters
11	513 S. Golden Star Road, Raytown, MO 49085	65000	Bonnie	Tucker
12	7 North Grandrose Lane, Leland, MO 28451	40000	Alice	Malone
13	186 Lees Creek St., Leland, MO 28451	40000	Rosemary	Hanson
14	4 Silver Spear St., Leland, MO 28451	40000	Blake	Gray
15	7787 Linden St., Leland, MO 28451	40000	Devey	Lawson
16	157 Adams Street, Grandview, MO 37086	45000	Rachel	Guerrero
17	5 SW. Park St., Leland, MO 28451	55000	Roberta	Bryan

Add a New Employee

First name:

Last name:

SSN:

Address:

Salary:

Requirements

Store dogs and cats that are in the shelter, their respective attributes type, name, breed, image, time in shelter, **pet_id**, date of arrival adoption date. this is denoted as pets in our schema and ER diagram.

Volunteers are identified by first name, last name, **supervisor_ID**, address, social security number, and are unique by their **Volunteer_ID**

Our employees are getting paid to work in the shelter and are identifiable by there first name, last name, address, social security number, **supervisor_ID** and are unique by their **Employee_Id**

and employees may work in different departments (foster, cats, dogs), and interact with animals as well as customers. Our Employees are getting paid to work for the Shelter and are identifiable by their first name, last name, social security number, address and are unique by their **work_id**. Our Volunteers are also identifiable by their first name, last name, social security number, address, and are unique by their **work_id**. Volunteers will not have a salary, but employees will. There has to be workers and volunteers.

Customers who are purchasing pets will have a **customer_id** that will identify with their first and last names, social security number, and uniquely identified by their **cust_id** (customer identification).

Donors will have attributes including their first and last names, company names, the type of donation, their contact information (email address, primary phone, secondary phone, address), donation total, the employee they interact with (**employee_id**), and uniquely identified by their **donor_id**.

Pets will have a relationship 'cares for' involving the volunteers, using the **volunteer_ID**, **pet_ID**, the type of care and the date it happened.

Volunteers will have a relationship 'supervises' in which employees will supervise the volunteers, which will provide meaning to the '**supervisor_ID**' listed in volunteer attributes.

Employees will also have a relationship with the donors entitled, 'give to' as to provide a middle man to the transactions with the donors.

Customers will have a relationship with the pets that will be entitled 'adopt' which involve the **pet_id** and **cust_id**.

Scope

1) Minimal UI

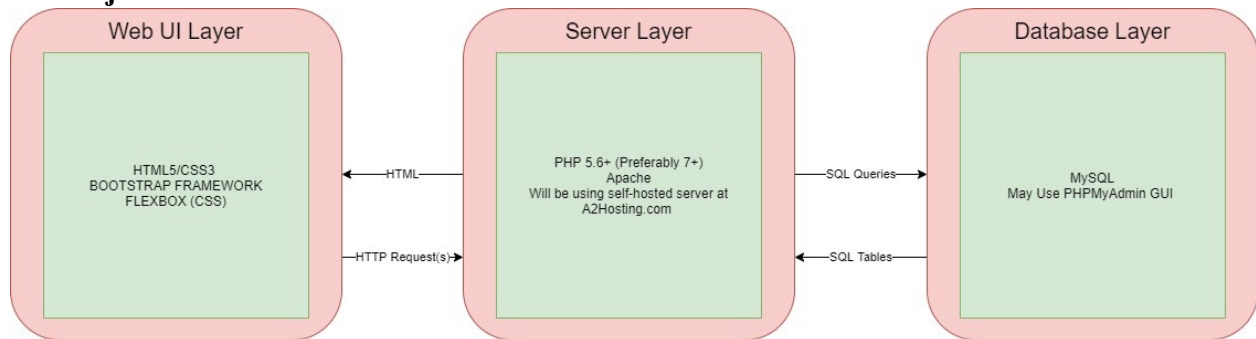
- a) The decision was made to focus mainly on backend development and understanding of SQL queries. With the knowledge that it would be beneficial to test how the back end operates with the front-end design.
 - b) The front-end design created was used to be an interaction for those working within the shelter. Making it easier for them to add information about customers, donations, employees, and volunteers. It is also a way for them to keep track of the information stored.
- 2) Defined departments
- a) For a shelter that would be: Employees, Volunteers, Potential Customers, Pets, Donors
 - b) It was important for the ER diagram to properly reflect how we wanted the different departments to interact.
 - c) By implementing different relationships, we were hoping for a comprehensive understanding of how to map interactions through the shelter.

Platform Development

Website Link: <https://bradstarnes.com/cs470/index.php>


- PHP
- HTML
- SQL

Project Architecture



Group: Runtime Terror Diagram w/ Support from Slidedeck on 3-tiered architecture

[Home](#)
[Donors](#)
[Customers](#)
[Volunteers](#)
[Employees](#)
[Dogs](#)
[Cats](#)



Employees

A list of our Employees can be found here

ID	Address	Salary	F_Name	L_Name
1	19 Cactus Street, Barborton, KS 44203	65000	Angelica	Lewis
2	1 Silver Spear Ave., Easley, KS 29640	65000	Steven	Gill
3	8028 Poor House St., Kansas City, MO 33904	65000	Maria	Nunez
4	9455 Adams St., Raytown, MO 46123	65000	Shirley	Jones
5	686 Ashley Rd., Independence, MO 76901	65000	Sarah	Mccormick
6	60 N. Marconi St., Grandview, MO 32703	82000	Laverne	Payne
7	393 Ramblewood Lane, Shawnee, KS 17543	65000	Kelli	Barnett
8	9415 S. Iroquois St., Shawnee, KS 11418	82000	Dwight	Dawson
9	9407 S. Wood Dr., Grandview, MO 37086	65000	Guy	Fuller
10	89 West Cypress Circle, Sanford, MO 27330	65000	Pat	Walters
11	513 S. Golden Star Road, Raytown, MO 49085	65000	Bonnie	Tucker
12	7 North Grandrose Lane, Leland, MO 28451	40000	Alice	Malone
13	186 Lees Creek St., Leland, MO 28451	40000	Rosemary	Hanson
14	4 Silver Spear St., Leland, MO 28451	40000	Blake	Gray
15	7787 Linden St., Leland, MO 28451	40000	Dewey	Lawson
16	157 Adams Street, Grandview, MO 37086	45000	Rachel	Guerrero
17	5 SW. Park St., Leland, MO 28451	55000	Roberta	Bryan

Add a New Employee

First name:

Last name:

SSN:

Address:

Salary:

Employees

A list of our Employees can be found here

ID	Address	Salary	F_Name	L_Name
1	19 Cactus Street, Barborton, KS 44203	65000	Angelica	Lewis
2	1 Silver Spear Ave., Easley, KS 29640	65000	Steven	Gill
3	8028 Poor House St., Kansas City, MO 33904	65000	Maria	Nunez
4	9455 Adams St., Raytown, MO 46123	65000	Shirley	Jones
5	686 Ashley Rd., Independence, MO 76901	65000	Sarah	Mccormick
6	60 N. Marconi St., Grandview, MO 32703	82000	Laverne	Payne
7	393 Ramblewood Lane, Shawnee, KS 17543	65000	Kelli	Barnett
8	9415 S. Iroquois St., Shawnee, KS 11418	82000	Dwight	Dawson
9	9407 S. Wood Dr., Grandview, MO 37086	65000	Guy	Fuller
10	89 West Cypress Circle, Sanford, MO 27330	65000	Pat	Walters
11	513 S. Golden Star Road, Raytown, MO 49085	65000	Bonnie	Tucker
12	7 North Grandrose Lane, Leland, MO 28451	40000	Alice	Malone
13	186 Lees Creek St., Leland, MO 28451	40000	Rosemary	Hanson
14	4 Silver Spear St., Leland, MO 28451	40000	Blake	Gray
15	7787 Linden St., Leland, MO 28451	40000	Dewey	Lawson
16	157 Adams Street, Grandview, MO 37086	45000	Rachel	Guerrero
17	5 SW. Park St., Leland, MO 28451	55000	Roberta	Bryan
18	28 St Paul Dr., Grandview, MO 37086	45000	Dustin	Hamilton
19	9169 Newcastle Drive, Grandview, MO 37086	45000	Gerald	Gonzales
20	976 Longfellow St., Grandview, MO 37086	45000	Toby	Brooks
21	271 Pawnee Ave., Leland, MO 28451	55000	Stewart	Parks
22	5 Selby Lane, Shawnee, KS 17543	55000	Enuna	Steele
23	1 South Lyme Rd., Shawnee, KS 17543	82000	Boyd	Maxwell
24	9612 Stillwater Lane, Shawnee, KS 17543	82000	Tony	Freeman
25	58 Heather St., Shawnee, KS 17543	65000	Adam	Collier
26	123 Canada Street	65000	Avery	Covy

Add a New Employee

First name:

Last name:

SSN:

Address:

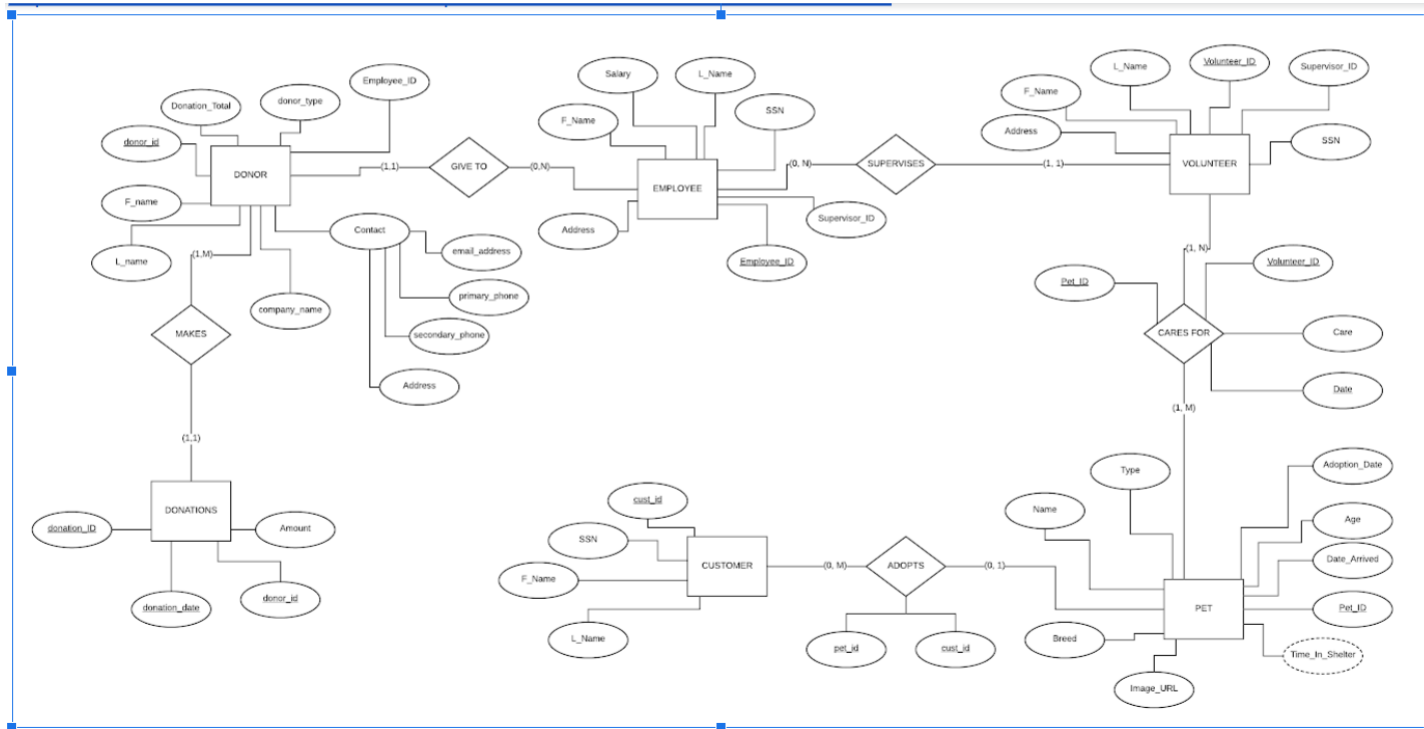
Salary:

This allows an update to made, automatically assigning the employee_id to the bottom of the list. They are organized by their employee id in the order in which they were submitted to the system.

ER Diagram

Link: <https://www.lucidchart.com/invitations/accept/4489ebd5-833c-450e-a115-07fe05ddf6bb>

CS-470 Group Project: Runtime Terror 6

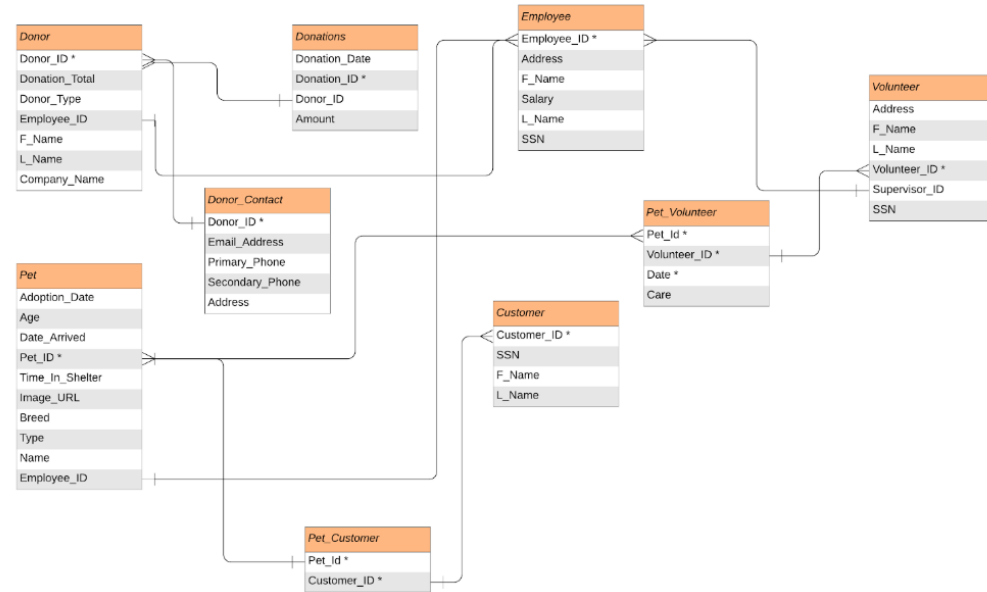


This document was prepared by Ozzie Loewen, Ami Khalsa, Brad Starnes, & Saurav Pawar for the purpose of an educational project. This document is not intended for commercial use. For more information on the course, please visit umkc.edu

Schema

Link: <https://www.lucidchart.com/invitations/accept/207058df-ce1f-40b7-9951-779affd54fd4>

Data Schema



Link: <https://www.lucidchart.com/invitations/accept/207058df-ce1f-40b7-9951-779affd54fd4>

Testing Log

Department	Employees	Volunteers	Donors	Dogs	Cats
Adding	Employees can be added from the UI, phpmyadmin, or the SQL query.	Volunteers can be added from the UI, phpmyadmin, or the SQL query.	Donors can be added using UI, SQL query, or phpMyAdmin.	Dogs can be added using the UI, SQL query, or phpMyAdmin.	Cats can be added using the UI, SQL query, or phpmyadmin
Deletion	*Employees can be deleted using myphpadmin or SQL query.	*Volunteers can be deleted from the UI or database.	Donors cannot be deleted.	Dogs can be adopted and moved to the "Adoption Records".	Cats can be adopted and moved to the "Adoption Records" if they are adopted.
Editing	Backend checks SSN to	Backend checks SSN to	If editing needs to be	If the move to "Adoption	Cats can be moved from

This document was prepared by Ozzie Loewen, Ami Khalsa, Brad Starnes, & Saurav Pawar for the purpose of an educational project. This document is not intended for commercial use. For more information on the course, please visit umkc.edu

	see if it already exists. If it exists, employee will not be added.	see if it already exists.	done to donors they must be done through the SQL query or phpmyadmin	Records" was premature, they can be returned to "Dogs".	"Adoption Records" to "Cats" if the move was premature.
--	---	---------------------------	--	---	---

Future Adaptions

In the future it would be helpful to make an administrative verification so that things like adding and deleting, and editing, especially when it comes to employee information, can be more selective. As of right now the option could be abused should anyone on the sight want to manipulate or add information.

Adding an announcement section to promote more events including our furry friends. An updated version of the donations table to show total donations to the shelter would be a good way to update that particular page. Using a date picker to instead of text input boxes for a more simplistic interaction. Employees and Volunteers could have a personal view of their own information, that way they can't see everyone else's information and no one can see theirs unless it's an administrator. Or alternatively the individual page could be used more like an 'about us' section so customers and other workers can get to know them.

Deficiencies

- COVID-19
 - We went from having set meetings after class and being able to interact with each other directly to having to find different ways and times to meet up.
 - Our questions and interactions were often delayed until another one of the members could log in and answer the question.
 - This did how ever give us a better idea about how a remote job would work and how to effectively communicate with each other
- Initial Ideas
 - Our initial ideas had to be changed slightly from our initial idea of a more user-based site to more of a database for tracking the different components of the shelter itself.

This Page Is Intentionally Left Blank