



Runtime Terror

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IDEA

Animal Shelter

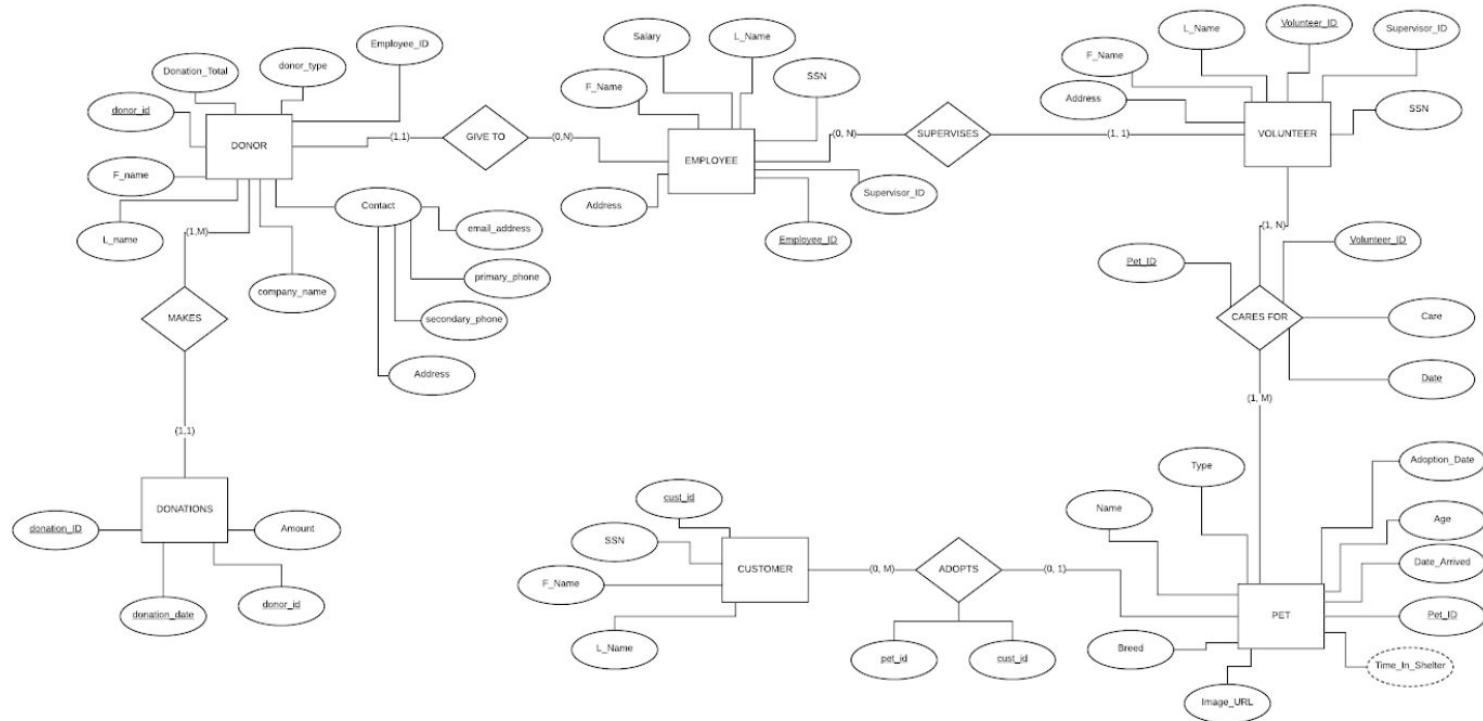
- Dynamic interactions between departments
- Central Dashboard for Employees to Process Operations
- Simple UI, User-Friendly-ish
 - (No Console Applications, It's 2020 USE Cloud User Focused applications)



Team Member & Roles

Ozzie Loewen	Web Developer / Scrum Master / Project Lead
Ami Khalsa	MySQL Developer / Research Development
Brad Starnes	Web Developer / SQL / Project Architecture
Saurav Pawar	MySQL Developer / Project Architecture
Kendal Bingham	Product Owner

ER DIAGRAM





Relational Algebra

- Relational Algebra
- Database

Sum of donations grouped by donor

```
 $\Pi$  Sum(Amount), Donor (Donation)
```

Number of pets adopted in X year

```
 $\sigma$  Pet ID and Adoption date = 'mm-dd-yyyy' (Pets)
```

Volunteers who are also Employees

```
 $\sigma$  Volunteers.SSN = Employee.SSN (Volunteers X  
Employee)
```

Donations received in X month

```
 $\sigma$  Donation date = 'mm-dd-yyyy' (Donation)
```

Pets who are in shelter but not adopted

```
 $\sigma$  Pets.Pet ID = Customer.Pet ID (Pets - Customer)
```

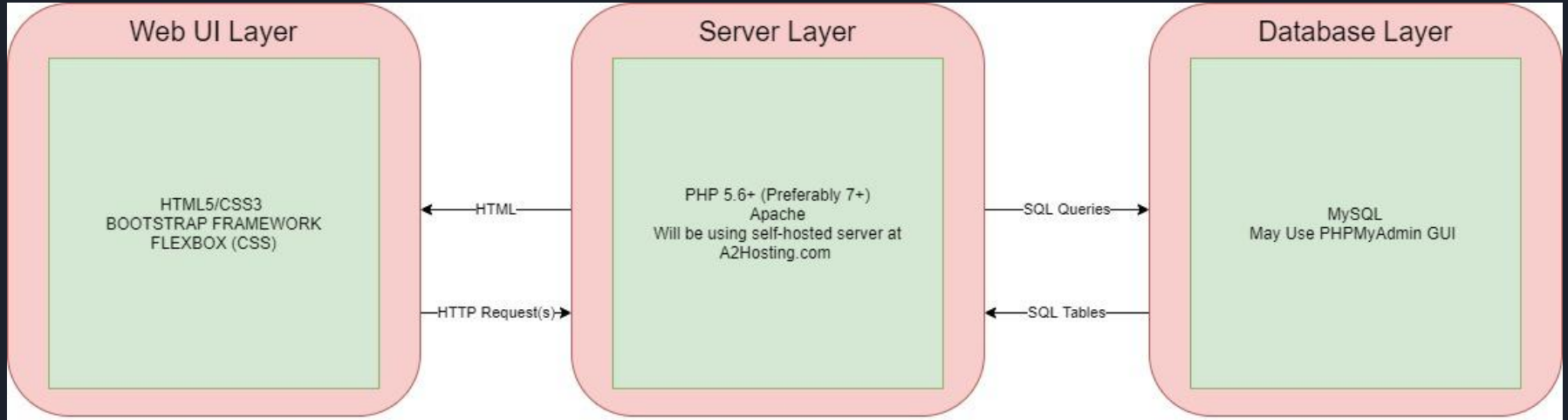
Tables & Constraints

- Primary & Foreign Key Restraints
- Delimiters
- SSN & Salary Constraints

```
CREATE TABLE `Pet` (  
  `Pet_ID` INT NOT NULL AUTO_INCREMENT,  
  `Date_Arrived` DATE NOT NULL,  
  `Time_In_Shelter` INT,  
  `Image_URL` VARCHAR(150),  
  `Breed` VARCHAR(30),  
  `Type` VARCHAR(25),  
  `Name` VARCHAR(25),  
  `Gender` VARCHAR(6),  
  CONSTRAINT `Pet_PK` PRIMARY KEY (`Pet_ID`)  
);
```

```
#Should not allow insertion of care where  
#date is later than the current date  
DELIMITER //  
CREATE TRIGGER Valid_Pet_Volunteer_Date_Check  
BEFORE INSERT ON Pet_Volunteer  
FOR EACH ROW  
BEGIN  
  IF NEW.Date > CURRENT_DATE()  
  THEN  
    SET NEW.Date = NULL ;  
  END IF;  
END//  
DELIMITER ;
```

Project Architecture



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

Database Security

php
7.4

```
require_once('./includes/dbconnect.php');
```

Name



config.ini



dbconnect.php

In ./includes/
directory

```
2  
3  
4  
5 • SELECT * FROM  
6      CS470RUNTIMEERROR.Employee;
```



```
// Try and connect to the database, if a connection has not been established yet  
if(!isset($connection)) {  
    // Load configuration as an array. Use the actual location of your configuration file  
    $config = parse_ini_file( filename: 'config.ini');  
    $connection = mysqli_connect($config['servername'],$config['username'],$config['password'],$config['dbname']);  
}
```


Example Queries

```
<p>Pet: <select id="pet_ID" name="pet_ID">
  <?php
    $sql = mysqli_query($connection, query: "SELECT Pet_ID, Name, Type, Gender FROM Pet
      WHERE NOT EXISTS ( SELECT * FROM Pet_Customer WHERE Pet_Customer.Pet_ID = Pet.Pet_ID);");
    while ($row = $sql->fetch_assoc()){
      echo "<option value='" . $row['Pet_ID'] . "'>" . $row['Name'] . " (" . $row['Type'] . ') ' . $row['Gender'] . "</opt
    }
  ?>
</select></p>
```

We also did this to Query Employees & Customers into Forms

```
// Querying the table
$sql_of_q1 = "SELECT Image_URL, Date_Arrived, ROUND(DATEDIFF(Date_Arrived, NOW())/ -1, 0)
as Time_In_Shelter, Breed, Name, Gender FROM Pet WHERE Type = 'Dog';";
```

Add a New Donor

First name:

Last name:

Company Name:

Employee Connection: ☒ 1 Angelica Lewis

Donor Type: ☐ Personal

- 2 Steven Gill
- 3 Maria Nunez
- 4 Shirley Jones
- 5 Sarah McCormick
- 6 Laverne Payne
- 7 Kelli Barnett
- 8 Dwight Dawson
- 9 Guy Fuller
- 10 Pat Walters
- 11 Bonnie Tucker
- 12 Alice Malone
- 13 Rosemary Hanson
- 14 Blake Gray
- 15 Dewey Lawson
- 16 Rachel Guerrero
- 17 Roberta Bryan
- 18 Dustin Hamilton
- 19 Gerald Gonzales
- 20 Toby Brooks
- 21 Stewart Parks
- 22 Emma Steele
- 23 Boyd Maxwell
- 24 Tony Freeman
- 25 Austin Collier



User Interface Tour

[~~ View Live Demo! ~~](#)



Future Scope

- Announcements Section
- Display Total Donations YTD in Main Dashboard
- Use Date Picker instead of text input box for dates
- Volunteer & Employee Individual View
 - Page where you can see personal details on those volunteers and employees
- Ability to Delete Donations & Adoptions (In case of user error)
 - We'd want to log these in our testing log
- Pre-filled Breeds for Cats & Dogs

Questions?

We know you have them or constructive criticism?

