University of British Columbia, Department of Computer Science

CPSC 304

Cover Page for Project Part 4

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above.

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

Project Deliverable Report

Important changes made to our formal specifications and database design:

- Our project uses NodeJS and PostgreSQL instead of PHP and MySQL. We are running a remote PostgreSQL database using ElephantSQL.
- We changed the datatype character representing certain fields in certain tables to varchar.
- In addition, we have removed the transaction entity and thus we also got rid of the cardNo attribute in Reward.
- We have also changed the datatype of primary keys in Users, Adoption, Pet, Sighting, Reward, Vet, Operation to be Serial datatype.
- We also had Users referencing AddressUserPC and AddressUserPN, and name of the attribute uid to userid in Users
- We also changed on delete no action from pet to on delete cascade and added on delete cascade to both lost and sheltered.
- We also got rid of on delete, on update information for reward.
- We got rid of on update information for sighting and changed on delete no action to on delete cascade

Deliverables:

1. **INSERT:** Insert a pet into the database
   ```
   INSERT INTO pet (uid, name, sex, breed, birthDate, regDate) VALUES (:uid,
   :name, :sex, :breed, :dob, CURRENT_DATE)
   ```
2. **DELETE:** Delete a lost pet
   ```
   DELETE FROM Lost WHERE pid = :pid;
   ```
3. **UPDATE:** Update the name and password of a user
   ```
   UPDATE Users SET username = :username, password = :password WHERE userid =
   :userid ;
   ```
4. **JOIN [3 or More Tables]:** Find the name of users who adopted a certain breed of pet at a certain campus
   ```
   SELECT u.username FROM adoption a, sheltered s, pet p, users u
   WHERE a.uid=u.userid AND a.tid = s.tid AND s.postalcode = :postalCode
   AND s.agencyname = :agencyname AND p.breed = :breed;
   ```
5. **JOIN [2 or More Tables]:** Filter lost pets by location
   ```
   SELECT * FROM lost l, pet p WHERE SQRT((lostLat-:lat)*(lostLat-:lat) +
   (lostLong-:lon)*(lostLong-:lon)) <= :radius AND l.pid = p.pid
   ```
6. **GROUP BY:** Find the average reward amount offered for each pet type
   ```
   SELECT animalType, round(avg(amount)::numeric,2) AS amount FROM reward, pet,
   pettype WHERE Reward.pid = Pet.pid and PetType.breed = Pet.breed GROUP BY
   animaltype;
   ```

7. **SELECT:** Find the sightings associated with a specific pet

```
SELECT * FROM Pet, Lost WHERE Pet.pid = :pid and Pet.pid = Lost.pid;
```

8. **SELECT:** Find the shelters associated with a specific agency

```
'SELECT * FROM Shelter WHERE agencyname=:agencyname'
```

9. **INSERT:** Add a new sighting for a specific pet

```
INSERT INTO sighting (date, time, lat, long, description, pid, uid) VALUES
(:date, :time, :lat, :long, :desc, :pid, :uid) ;
```

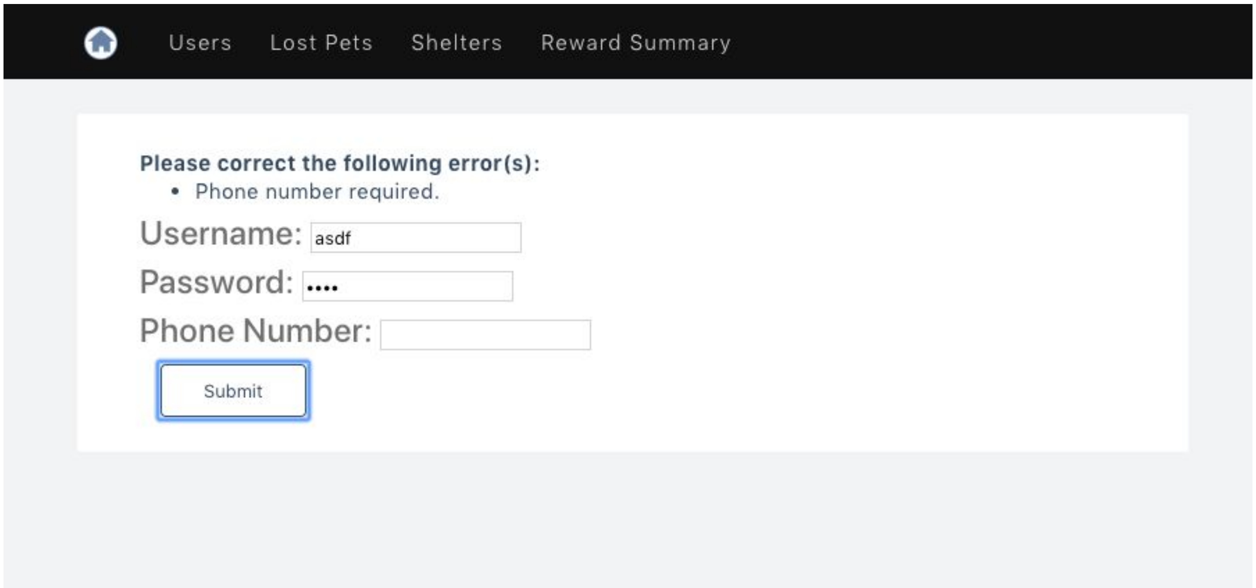
10. **VIEW:** Combine user and pet information into a single public view accessible to users that are not logged in

```
CREATE VIEW publicinfo AS
SELECT u.username, p.name, p.breed, a.animalType
FROM users u, pet p, petType a
WHERE u.userid=p.uid AND p.breed=a.breed
```

Notes:

- The SQL statements used to create and populate (load) the tables are located in CreateUsersTable.sql.
- The embedded SQL statements that interface with the application are located in the api directory.

Screenshots of Sample Output:



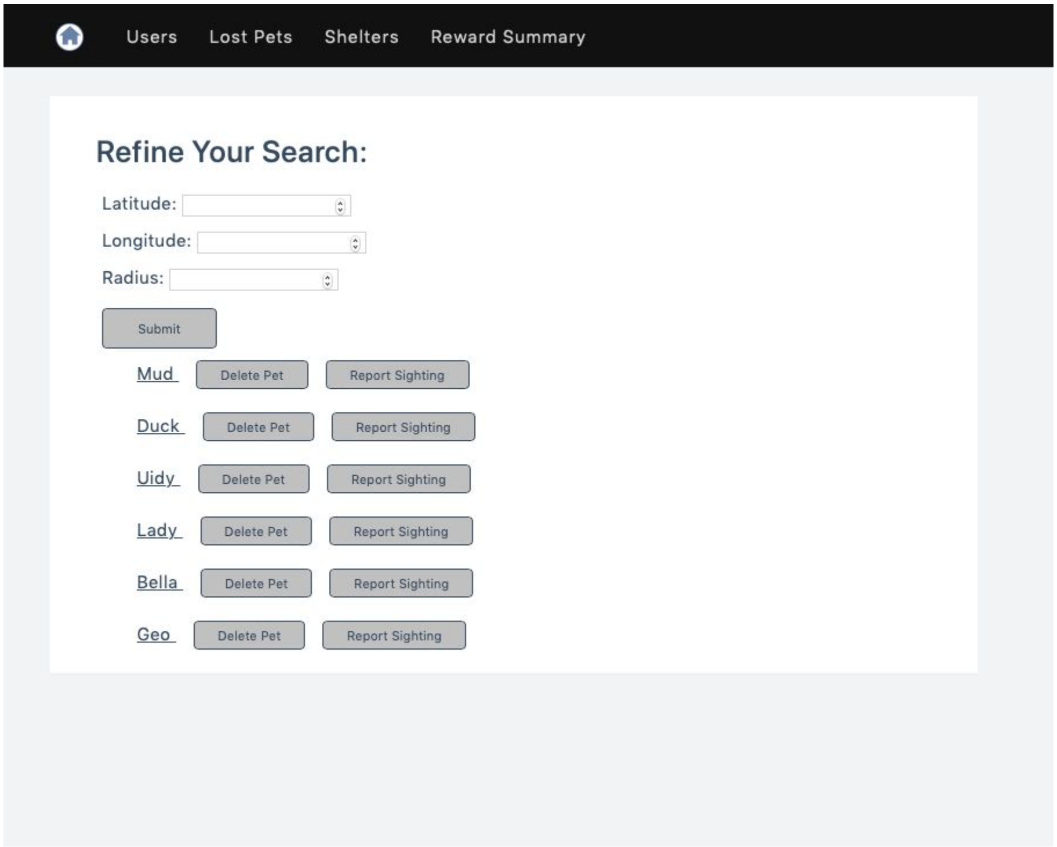
Please correct the following error(s):

- Phone number required.

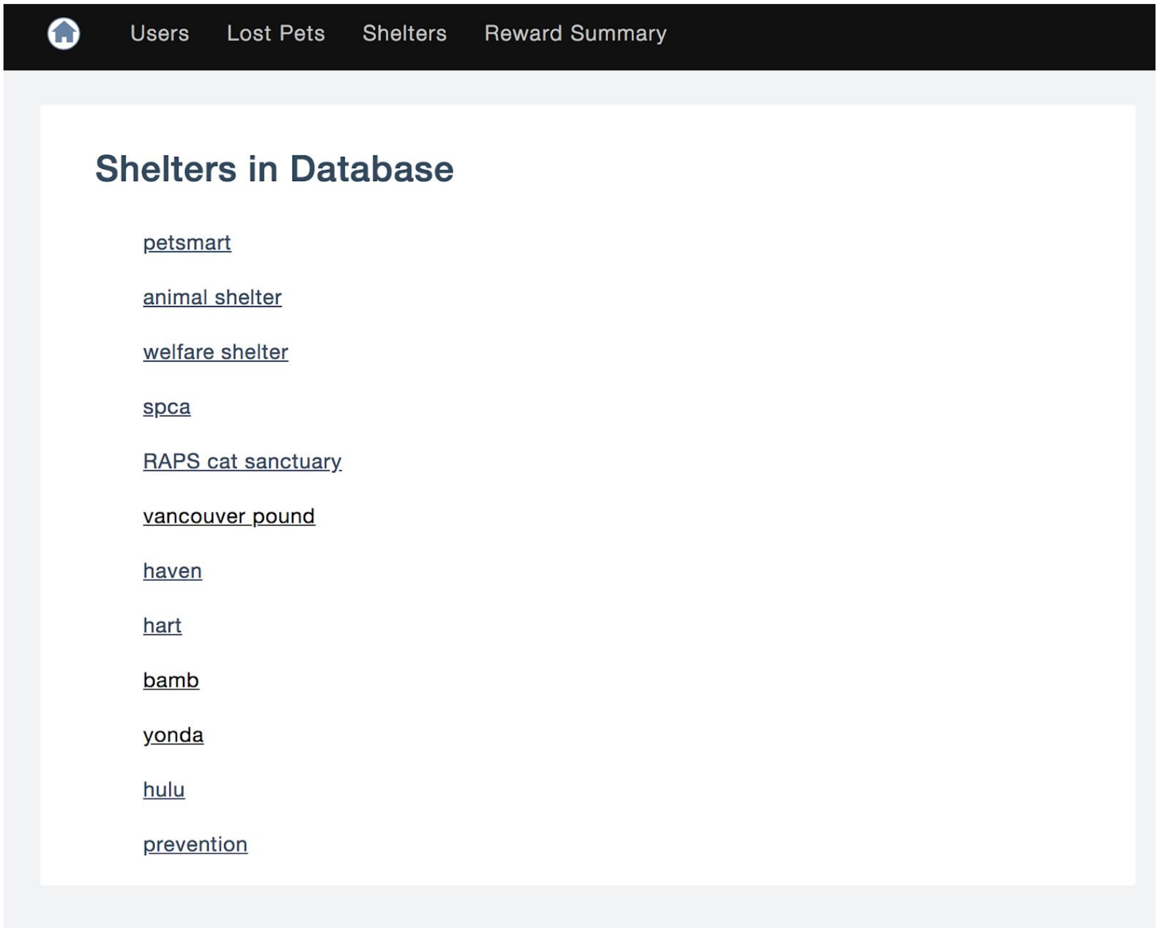
Username: asdf

Password: ••••

Phone Number:

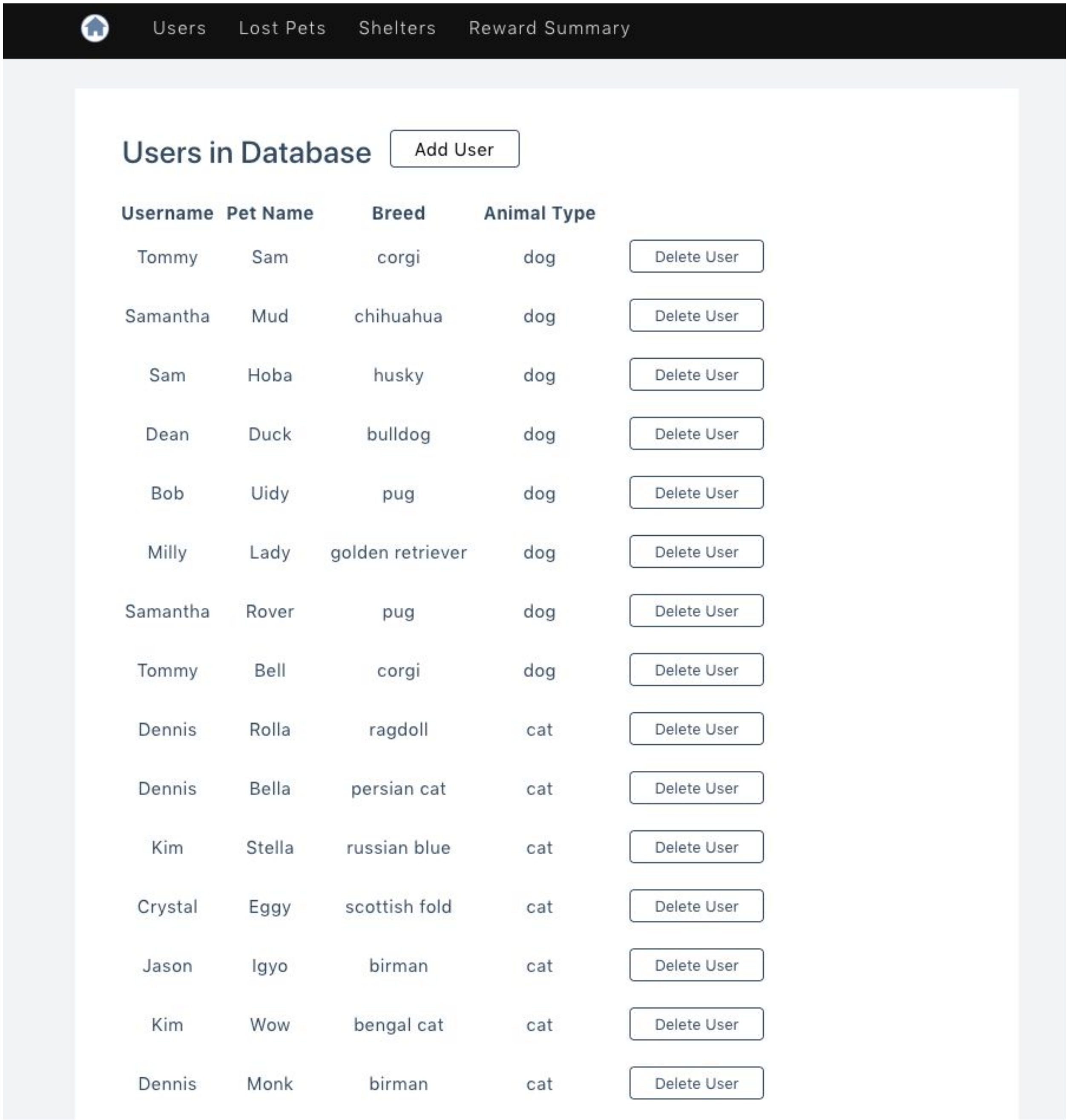


Users
Lost Pets
Shelters
Reward Summary
Refine Your Search:
Latitude:
Longitude:
Radius:
Submit
Mud
Delete Pet
Report Sighting
Duck
Delete Pet
Report Sighting
Uidy
Delete Pet
Report Sighting
Lady
Delete Pet
Report Sighting
Bella
Delete Pet
Report Sighting
Geo
Delete Pet
Report Sighting



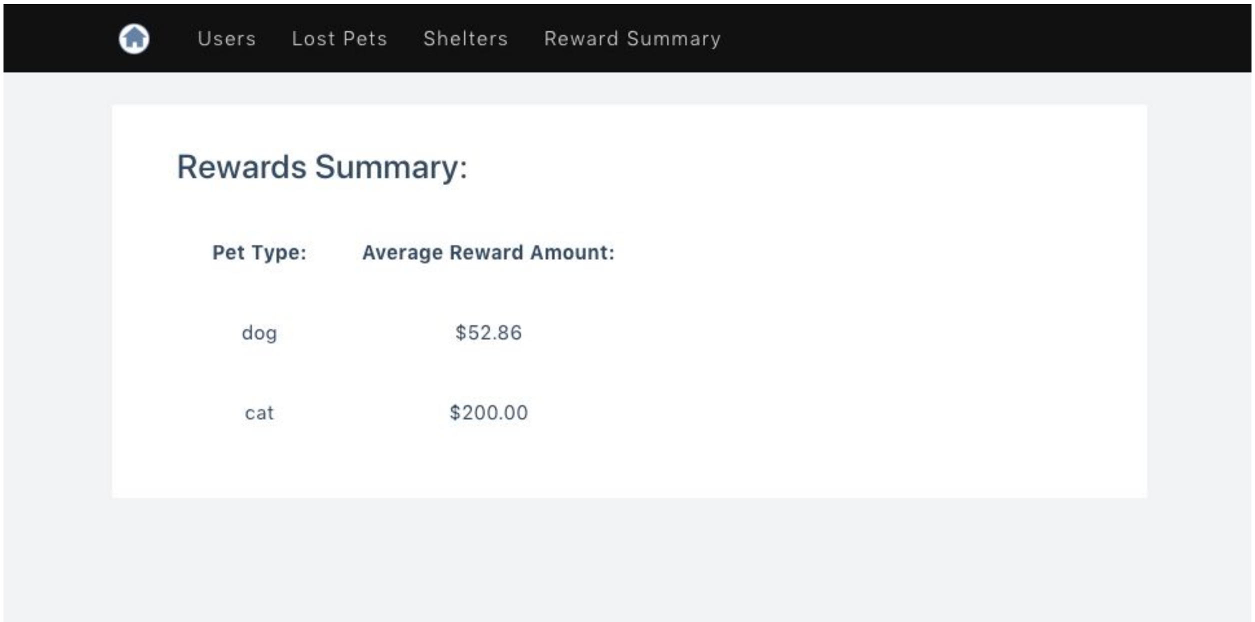
Shelters in Database

- petsmart
- animal shelter
- welfare shelter
- spca
- RAPS cat sanctuary
- vancouver pound
- haven
- hart
- bamb
- yonda
- hulu
- prevention



Users in Database

Username	Pet Name	Breed	Animal Type	
Tommy	Sam	corgi	dog	Delete User
Samantha	Mud	chihuahua	dog	Delete User
Sam	Hoba	husky	dog	Delete User
Dean	Duck	bulldog	dog	Delete User
Bob	Uidy	pug	dog	Delete User
Milly	Lady	golden retriever	dog	Delete User
Samantha	Rover	pug	dog	Delete User
Tommy	Bell	corgi	dog	Delete User
Dennis	Rolla	ragdoll	cat	Delete User
Dennis	Bella	persian cat	cat	Delete User
Kim	Stella	russian blue	cat	Delete User
Crystal	Eggy	scottish fold	cat	Delete User
Jason	Igyo	birman	cat	Delete User
Kim	Wow	bengal cat	cat	Delete User
Dennis	Monk	birman	cat	Delete User



Rewards Summary:

Pet Type:	Average Reward Amount:
dog	$52.86
cat	$200.00