CS110 Final Project Proposal

Project Name: Stallr
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We are building a web application to share toilet reviews. It can be an awful experience to have to go to a public restroom you haven't been to before, and see that it is very unsanitary. By having this web application, it is possible to plan out where to go when you need to go during your time out in public.

Profiling:
Each person will have an account that they can use in order to log in to the web application and post reviews, comment, and rate different toilets/restrooms. These profiles can also be customized to include a custom profile icon as well as a bio.

User Authentication and Authorization:
Users are authenticated on a password based system with the option of using Google accounts as their account for this site. Admin accounts have their own functionalities compared to normal users, which includes being able to change the passwords of other users if a user happens to get locked out and forgot their password.

Rating and Commenting:
Users can write a review for any given restroom using a five star rating system, and other users can comment on reviews that have already been posted.

Database:
For the database we will be using MongoDB in order to store the information for each user and all the photos and reviews of the different toilets/restrooms.

Social Network:
Users can search up other users and view what reviews those users have made. Users can also add other users as friends/follow them and then friend's reviews will show up with a higher priority on the toilet review feed for that user.

Search System:
There will be a search system where users can search for other users to add them as friends/follow them and to see what other users have reviewed.

Admin:

Admin functionality will serve to allow admins to change the passwords for users for the purposes of account recovery, moderating reviews and comments so that they are relevant to what is being reviewed, and allowing for the initialization and repopulation of the database.

Outline of User Role:
- Can make and customize a profile
  - Can add a custom profile image
  - Can add a short bio to their profile
- Can write reviews using a five star rating system
- Can comment on other users' reviews

Outline of Admin Role:
- Shares same features as User Role
- Can moderate reviews to keep content relevant to the reviewed subject
  - Includes the moderation of comments on reviews
- Can change the passwords of users to help with account recovery
- Can initialize and repopulate the database

Meetup Times and Workloads:

We plan to meet up at least once a week outside of lab and in this meeting we will discuss:
- What we each got done
- Plan for next week
- Any challenges we encountered
- Anything that we each need help with
- If we all have extra time after, then will have a work session together

Workloads:

Role 1 -
- Frontend (display of feed, new review forms, etc.)
- UI/UX

Role 2 -
- Database
- Authentication
- Admin role & User role

Role 3 -
- 5 star rating system

- Social network/friends system
- Commenting and new reviews

Sketches:

User Functionalities

```
                    ┌─────────────────┐
                    │      User       │
                    └─────────────────┘
                             │
         ┌───────────────────┼───────────────────┐
┌─────────────────┐ ┌─────────────────┐ ┌─────────────────┐
│ Profile         │ │ Write           │ │ Comment         │
│ Customization   │ │ Reviews w/      │ │ on Reviews      │
│                 │ │ Ratings         │ │                 │
└─────────────────┘ └─────────────────┘ └─────────────────┘
```

Admin Functionalities

```
              ┌─────────────────┐
              │ Admin           │
              │ Extends User    │
              └─────────────────┘
                       │
      ┌────────────────┼────────────────┐
┌──────────────┐ ┌──────────────┐ ┌──────────────┐
│ Moderate     │ │ Change       │ │ Initialize/  │
│ Reviews      │ │ Passwords    │ │ Repopulate   │
│              │ │              │ │ Database     │
└──────────────┘ └──────────────┘ └──────────────┘
```

Reviews & Comments

```
                    ┌──────────────┐
                    │   Review     │
                    │  stored in   │
                    │  database    │
                    └──────────────┘
                           ▲
                           │
┌──────────────┐    ┌──────────────┐    ┌──────────────────┐
│ User makes   │───▶│   Review     │◀───│ Admin moderates  │
│   review     │    │   posted     │    │    content       │
└──────────────┘    └──────────────┘    └──────────────────┘
                           ▲                      │
                    ┌──────────────┐              │
                    │ Other users  │◀─────────────┘
                    │ comment on   │
                    │   review     │
                    └──────────────┘
```
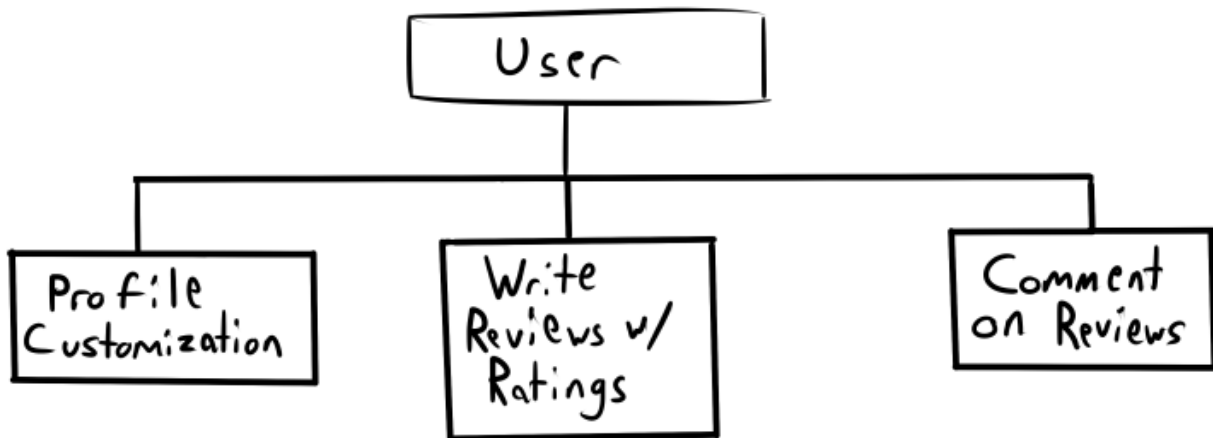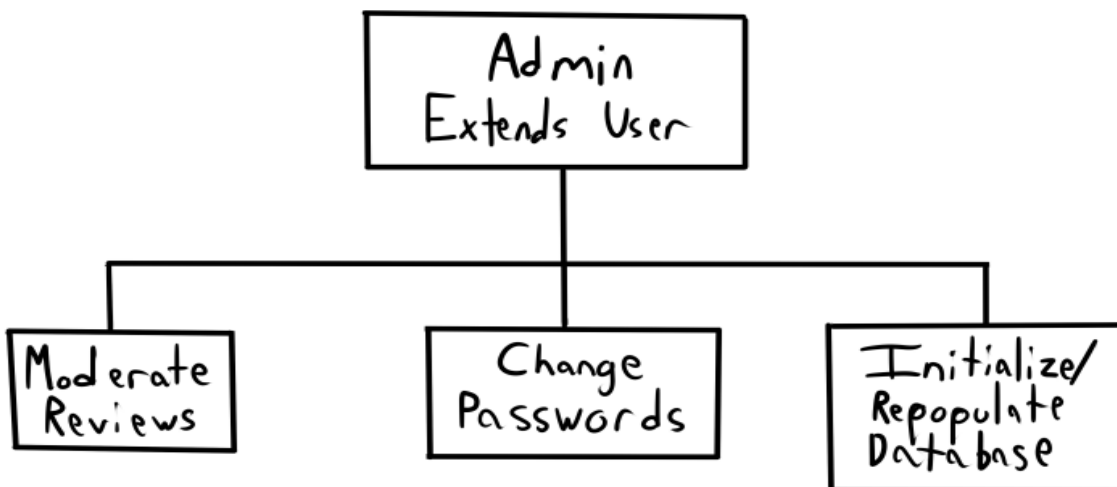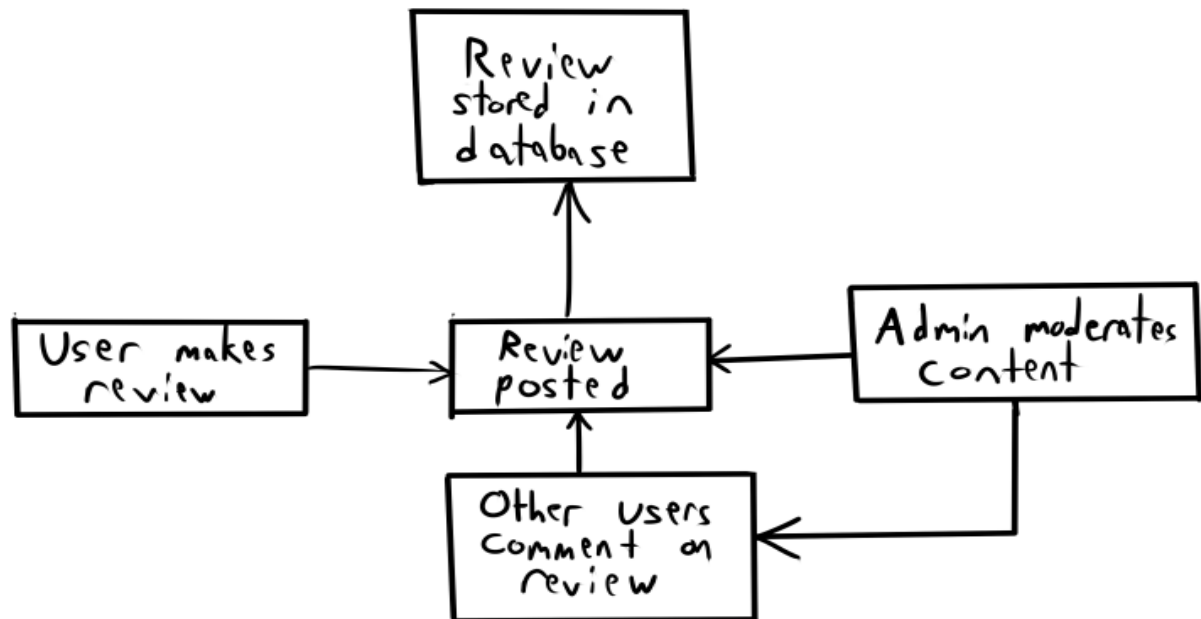
Mock-Up of Web Application

Home Page

Home   Explore   Profile

Toilet Picture

★ ★ ☆ ☆ ☆   ⅖ Stars

Review text

Comments

Profile Page

Home   Explore   **Profile**

Profile
picture

Profile
information

Friends List