# ClimbOn - Rock Climbing Database

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### 1. Introduction

This application is for users to find rock climbing gyms, outdoor locations, and places to purchase equipment. The users should be able to sign in and add reviews for these locations and add routes. Users can also suggest new gyms, and stores to be approved by an admin. Users can add outdoor locations without admin approval because almost anywhere can be an outdoor location and it doesn’t need to be as heavily regulated.

### 2. Detailed Functionality & Requirements

1. Users can make accounts with passwords.
2. Users can log in and out.
3. Users can view stores, gyms, and outdoor sites without being logged in.
4. Users can post routes for outdoor locations and gyms.
5. Users can suggest new gyms and stores.
6. Users can add outdoor locations
7. Users can leave reviews.

Business rules:

1. Users can not add gyms or stores themselves.
2. You must log in to post reviews or suggest new additions.
3. You can only rate a location once, trying to add another will overwrite the old review.
4. You do not need to log in to see any of the information.

### 3. Database Design

## ER Diagram of Database

## https://lh4.googleusercontent.com/h4ACiFIA6hk06I4wUxvjxwbvz6tPxVCxzV1N3npUvvhse9WcE75Ca1160cR_1vh_w2ojLlHF5z_BtT1Hdf-UHrh4abKNxaIOBGRlyUqLJe45ox5d3XZpnIzRDY8z0EBhh0NOPfwR

## Relation Schema

## https://lh4.googleusercontent.com/Tt_zJV2b5lR9OgNYzq7GZST8yeJSfd0omX8LQ58igEuZqYScnTLutCbo0I9PoTSmjfnSyoYM_I7AhB7pCtebqg89KDNIw6OYhDrLYxybhDBGB8fL7NMUguf2__c93Fh1yjN4aRsp

## Database Tables

### E:\Tables.png4. Website Design

Discuss the design of your website.

## Website Layout

## E:\Website Layout.png

## User Interface

* + **HOME**:You will start on the homepage which will display nearby locations when you type them in the City box and click submit. Use these cities to get results: Corvallis, Eugene, Susanville. If you add a new location using a different city later it will show up here.
  + **ANY PAGE:** On any page you can use the navigation bar on the left to move around the website. The gym/outdoor/store links will take you to a list of all the entries of that type in the database and let you suggest a new one if you are logged in.
  + **LOGGING IN:** In order to log in, click the “login” button in the top right corner. From there you can create a new account or log in with a current one.
  + **ADMIN LOGIN:** Because admins have the ability to approve suggested gyms and stores we wanted to make sure you could log in and view that as well. Use the account name: **Zaengru** and password: **bad** to log in as an admin.
  + **GYM or OUTDOOR or STORE list pages:** These pages display a full list of every approved location of that type. From these pages you can also suggest a new gym using the “suggest a gym” button at the bottom of the list.
  + **GYM or OUTDOOR or STORE detail pages:** These pages display the details of the location you have selected. These pages can be reached by clicking a location on the front page OR from any one of the list pages. To view reviews or routes left by other users you can click them and a modal will pop up with all the information they left. From these pages AS A LOGGED IN USER you can leave reviews for any location and add new routes (with optional pictures) for gyms and outdoor sites.
  + **ABOUT PAGE:** This page just contains some simple instructions and answers to questions we think users might ask. 5. Application Implementation
* Describe your use of HTML/PHP/CSS/JavaScript/….
  + We used Bootstrap to create our navigation sidebar. Javascript is used on almost every page to update content without having to reload. For example on the main page we use AJAX to find results in the given city without reloading the page. For the reviews and routes we used javascript to put all the information in a popup modal when the user clicks a specific review. This includes loading images when they have been uploaded.
* Discuss your SQL queries
  + Almost every page has SQL queries. Our grading sheet has in depth descriptions of the SQL used on almost every page but to review: select statements were used on the list pages and on the frontpage. Logging in will query the database and set up a session with the users information in it. Creating a new route/site/store/gym will insert into the database. Creating a new review will insert into the database AND remove duplicate entries (where a user has reviewed the same location before). Creating a new account will insert into the database.
* Which of your application requirements the DBMS provides.
  + We used the DBMS to create our views which we select from instead of using the tables because it allows us to make single query’s and prevents mistakes. We created triggers to update the overall rating of a location when a user leaves a new review. We used procedures to allow admins to publish user suggested gyms and stores.

### 6. Evaluation

To test the site, we have created at least one new database entry in each of the tables. New user accounts, new reviews and routes for each type of location, new locations of all 3 gym/site/store possibilities. Tested displaying the locations in each city on the frontpage. We also made sure unpublished gyms and stores didn’t show up on their respective lists. We showed the site to friends and had them browse and use it to test there were no bugs.

### 7. Future Work & Lessons Learned

Some of the functionalities we originally had planned but decided were outside the scope of the class were: Events at each location, stores could post sales, gyms could post schedules for special events, outdoor sites could have gatherings. Managers for Gyms and Stores that would be able to edit everything and add pictures. Beyond this class ideally, we would clean up some of the site to make it more consistent (modals don’t quite fit the style for example) and add the features we mentioned. Overall not too much would be added because the idea was to keep it simple and small.

Challenges we ran into were:

Originally the home page was supposed to use reverse geolocation to list nearby locations however recently Google Chrome has made it a requirement that sites be secured through HTTPS not HTTP to be able to use this feature. We tried other geolocation features however they were either inaccurate or unreliable.

Uploading pictures into the database would have required us to load every picture related to a route on the gym/site\_details pages which would mean much longer load times if there were more than just a few routes. Instead we uploaded them to the server and had the database record the name. JavaScript now only loads one image at a time when the individual route is clicked.

Next time we would probably split the duplicate information into its’ own database table from the start. Originally there was no Location table and we had site/store/gyms tables which had lots of duplicate fields in them. Additionally, it would have been a good idea to start work on the front end skeleton early so we would know what kinds of triggers/procedures would be the most useful.

***Appendix – Team Report*** *If you worked in a team summarize the division of labor.*

Devon Cash:

* CSS
* Layout
* Navigation
* Sidebar styling
* Account Creation
* Cleaning up information displays
* Admin page
* Header/footer
* New Outdoor/Gym/Store

Dakota Zaengle:

* Database Tables
* New Routes
* New Reviews
* Basic information display
* Login
* City Search
* About page
* Procedures/Triggers
* Views
* Writeups