



# Route Rater Climbing App

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# The Problem

Overview: Our app utilizes QR codes to allow climbers to rate indoor climbing routes' difficulty, track their progress and collectively update difficulty ratings for more accurate and data-driven results.

## Basic Functionality

1. Registration
2. Login
3. Gym Search
4. Gym Creation
5. Route Rating
6. Progress Tracking for Climbers

# The Design

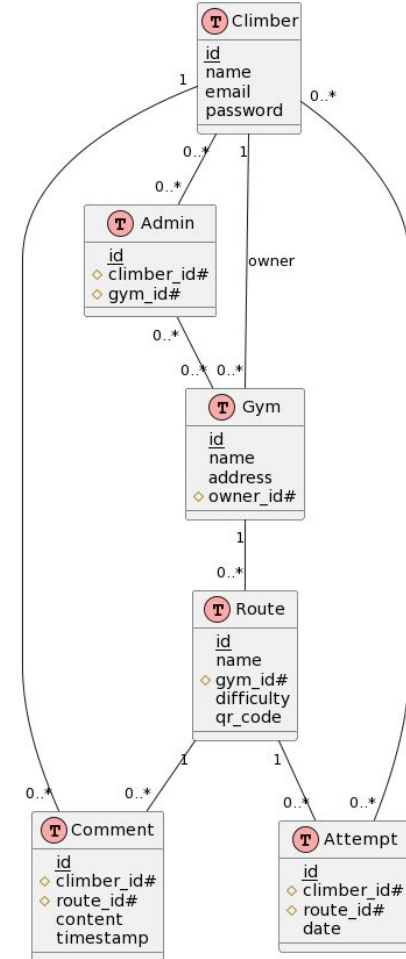
## Tech Stack

**Frontend:** HTML, CSS, Javascript, Bootstrap, Jinja2

**Backend:** Python, Flask

**Database:** MongoDB, pymongo

**Other Libraries:** YAML, QR code generator



# Progress - Why we will succeed

Development Environment

Flask Server

Front-end and back-end communication

Database connected

RouteRater Routes Gyms Sign Up Login

## Sign Up

Email

Username

Password

Confirm Password

Sign Up

Already have an account? [Log in](#).

```
(.env) bill@acer:~/spring2023/520/cs520_final_project/src$ python app.py
* Serving Flask app 'RouteRater'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:8000
* Running on http://192.168.0.223:8000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PIN: 141-707-765
24.34.20.62 - - [20/Apr/2023 13:32:24] "GET /logout HTTP/1.1" 302 -
24.34.20.62 - - [20/Apr/2023 13:32:24] "GET /login HTTP/1.1" 200 -
24.34.20.62 - - [20/Apr/2023 13:32:31] "POST /login HTTP/1.1" 302 -
User is logged in but has not selected a gym
24.34.20.62 - - [20/Apr/2023 13:32:31] "GET / HTTP/1.1" 302 -
24.34.20.62 - - [20/Apr/2023 13:32:31] "GET /gym/search HTTP/1.1" 200 -
24.34.20.62 - - [20/Apr/2023 13:32:31] "GET /favicon.ico HTTP/1.1" 404 -
24.34.20.62 - - [20/Apr/2023 13:32:31] "GET /favicon.ico HTTP/1.1" 404 -
```

# Mockup - Climber Pages

Login

Rate Rater Rater Gyms Sign Up Login

## Login

Email

Password

Login

Need an account? Register

Register

Rate Rater Rater Gyms Sign Up Login

## Sign Up

Email

Username

Password


Confirm Password

Sign Up

Already have an account? Login

Profile

Rate Rater Rater Gyms Profile Logout



Username

Edit Profile

Attempt History

Rate Name	gmk	5m?
Rate Name	gmk	5m?
Rate Name	gmk	5m?

Your Gyms

Gym Name
Gym Name
Gym Name

Find Gym


Friends

Friend Name
Friend Name
Friend Name
Friend Name
Friend Name
...

Add Friend

Edit Profile

Rate Rater Rater Gyms Profile Logout



Change Profile Picture

First Name

Last Name

Username

Bio

Save

Delete

# Mockup - Gym Pages

Create Gym

Route Patel Routes Gyms Profile Logout

## Create Gym

Name

Address

Website

Owner Username

Create

Edit Gym

Route Patel Routes Gyms Profile Logout

## Edit Gym

Add Route

Name

Address

Website

Owner Username

Save

Delete

View Gym

Route Patel Routes Gyms Profile Logout

## Gym Name

Routes

Route Name	gym
Route Name	gym
Route Name	gym
Route Name	gym
Route Name	gym

Add to Favorites

Search Gym

Route Patel Routes Gyms Profile Logout

Gym Name  Search

Gym Name

Gym Address

Edit

Route Name

Favorites

Gym Name

Gym Address

Edit

Route Name

Favorites

Gym Name

Gym Address

Edit

Route Name

Favorites


# Mockup - Route Pages

## Create Route

Route Rater Routes Gyms Profile Logout

Create Route

Gym Name

  
Add Picture

Route Name

Grade

Gym Area

Color

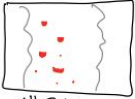
Create

## Edit Route

Route Rater Routes Gyms Profile Logout

Edit Route

Gym Name

  
Add Picture

Route Name

Grade

Gym Area


Color

Update

## View Route

Route Rater Routes Gyms Profile Logout

Route Name



Add Attempt

Estimate Grade

Attempts

Status	Date
Status	Date
Status	Date
Status	Date

# The Evaluation - Functional Requirements

1. User authentication and registration
2. Gym creation and management
3. Route creation and management
4. QR code generation and scanning
5. Climber rating and route completion
6. Difficulty rating calculation
7. Climber progress tracking
8. Comment and attempt logging
9. Search functionality
10. Data management



# The Evaluation - Non-Functional Requirements

## 1. Performance Testing

- a. Measure app load times, response times, and resource usage.

## 2. Usability Testing

- a. Evaluate UI, navigation, and user experience with target audience representatives.

## 3. Load Testing

- a. Simulate app behavior under heavy traffic and high data volumes.

## 4. Alpha/Beta Testing

- a. Identify issues and gather feedback with internal and external users before the final release.

# The Plan

## Timeline

Mid-Point Presentation: 4/20

All basic functionality implemented: 4/30

Finish design of each page: 5/6

Have working final prototype: 5/11

Final Presentation: 5/16

## Responsibilities

Roshan Praveen Shetty: UI design and frontend development

Josh Viktrov: Backend development and database management

William Ray: QR code generation and integration

Andrew Xie: Testing and documentation

Thank you