

# Buff's Bulletin

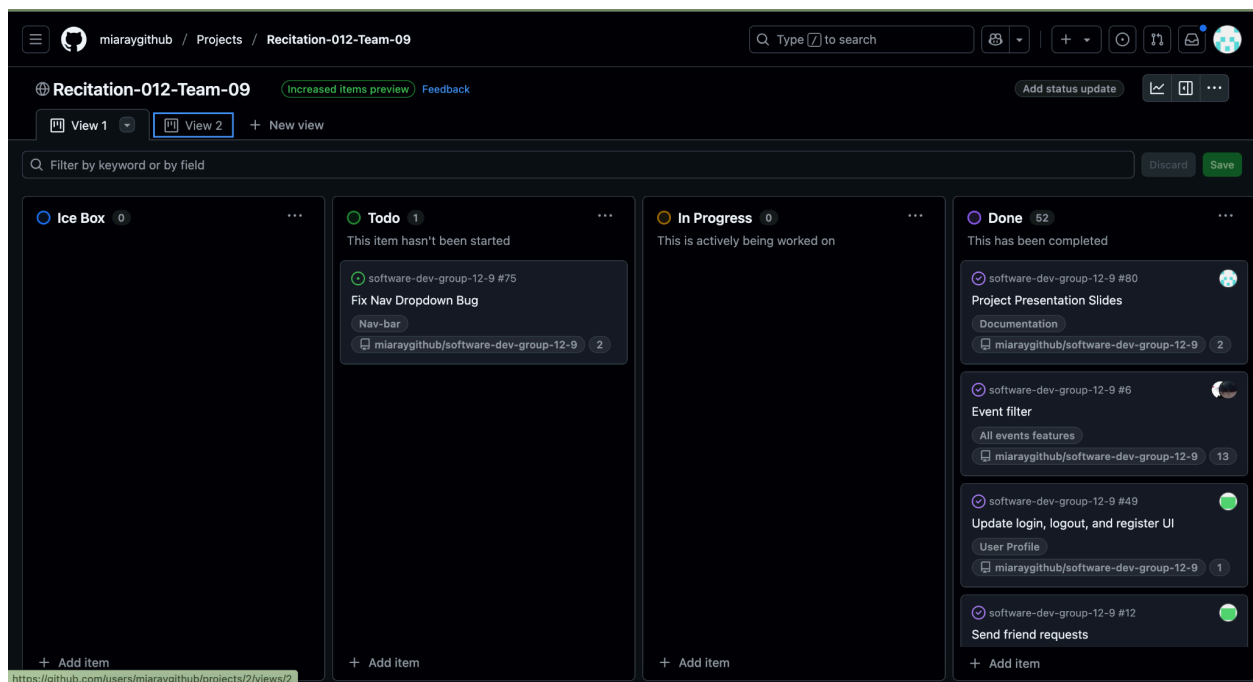
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## Project Description

Buff's Bulletin is for CU students who need a better way to advertise events and find events to attend on campus. This CU Boulder specific map uses the Mapbox API for a seamless experience. Unlike the campus map or Google maps, campus events can be shown all in one place. Users can simply pull up the map and see upcoming events as items in a list on the sidebar and as pins on the map. Clicking on a pin pulls up the respective event on the sidebar. By clicking on the event in the sidebar, users will be able to view all event details. If they are logged in, they will also be able to RSVP and view/post comments on the event. Additionally, if they are logged in, they can edit their profile, view their upcoming events, and send and receive friend requests. All users can search for specific clubs and events as well. If a user is a club organizer, they can enroll as such during registration, which will give them access to create new events as well.

## Project Tracker

<https://github.com/users/miaraygithub/projects/2/views/1>



## Video

<https://drive.google.com/file/d/1jIVy1N1mzKghAOhHBuWAC8xzWdkHEUBX/view?usp=sharing>

## VCS

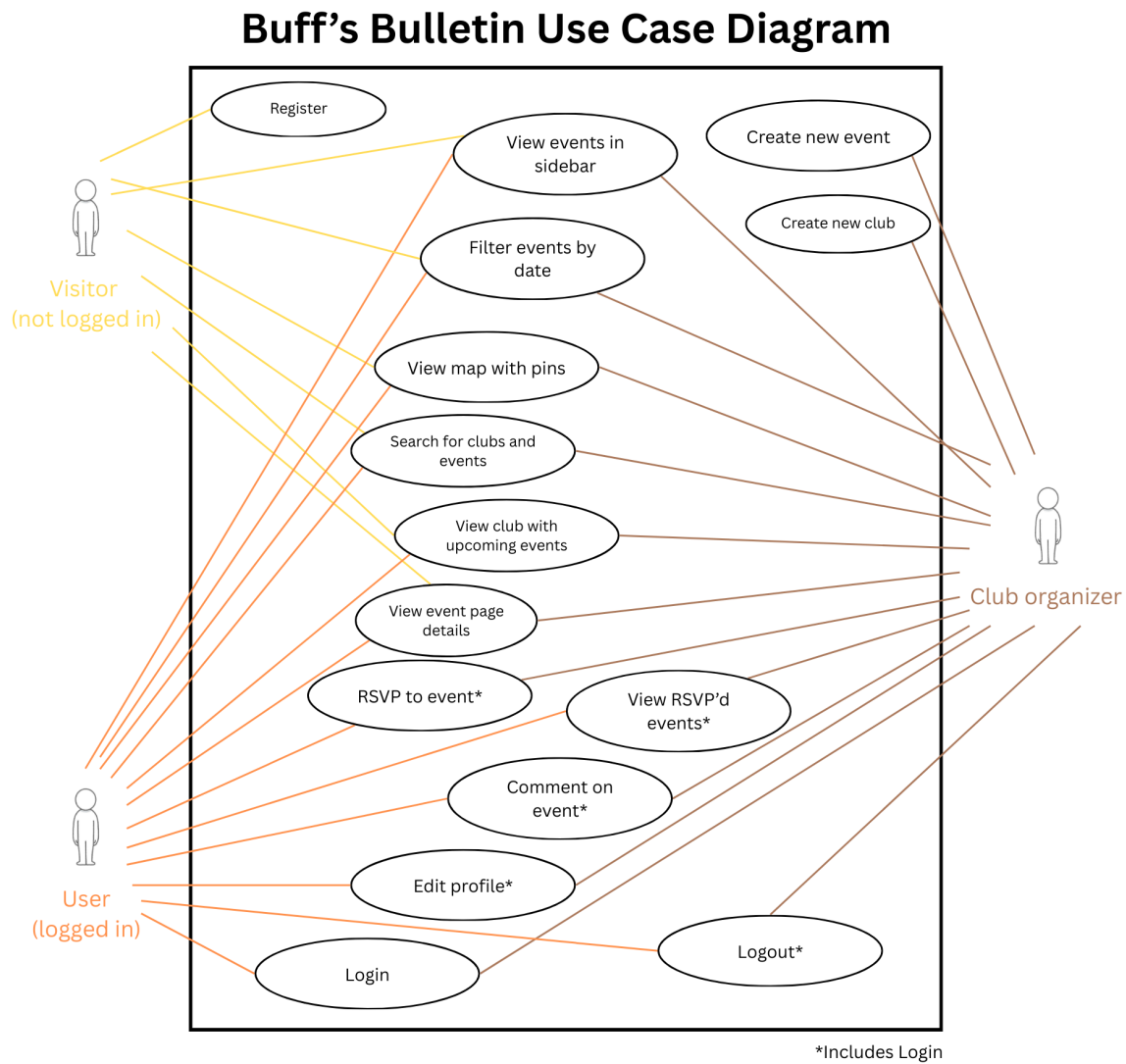
<https://github.com/miaraygithub/software-dev-group-12-9>

## Contributions

- Mia: I began with back-end heavy work. In the first half of the project, I designed and implemented the database and added the ability to create and save new events to that database. I also implemented the ability for a user to open an event's details in a new tab. My productivity increased when we shifted to feature based / full-stack roles, and I created the RSVP feature, established organizer roles for clubs, assisted with web-scraping, and added automatic unit testing on startup using mocha/chai. I designed the wireframe models and the stack architecture diagram using Canva, and facilitated user testing.
- Jessie: I primarily worked to implement a "user profile" functionality for the user. I added login, registration, and logout pages and API routes. I also implemented the ability for the user to view their profile and update it accordingly, and for the user to be able to send, receive, and accept friend requests from other users. The user is also able to view their list of friends. I also prepared release notes each week for our team's weekly SCRUM meetings with the TA.
- Julia: I worked on the event sidebar and the link between pins on the map and events, as well as some of the visual design elements.
- Jules: Throughout the project, I mainly focused on backend work. Tasks like creating event filtering with Julia, sourcing event descriptions, and setting up a commenting system for users in the database, along with the logic. Amongst these, I also worked on some frontend: the comments sections, and, more complexly, my events page, where users could see their rsmps and the neat location feature on a map. Most importantly, tho, I worked on the feature of webscraping, setting up all the functionality with the ICS library and parsing for all relevant information.
- Makaela: My main areas of focus were the map, search, and general user interface. I worked on setting up the MapBox API and getting the map to show up. I also added the map pins, colored them by event type (I worked with Jules's parser to input tags into the database to give events categories), and added a pin legend to the map. I implemented the search bar and search

results page with the corresponding APIs. I also worked on updating the home page UI. Lastly, I created the Use Case Diagram.

## Use Case Diagram (created using Canva)



# Wireframes (created using Canva)

Register Page

Buff's Bulletin

Search By Event or Club

Sign Up

Login

Join Buff's Bulletin

See What's Happening around the CU Boulder campus.

Register

USERNAME

Username

PASSWORD

\*\*\*\*\*

ARE YOU AN ORGANIZER?

REGISTER

CLUB NAME

CREATE CLUB IF NOT FOUND?

Login Page

Buff's Bulletin

Search By Event or Club

Sign Up

Login

Buff's Bulletin

See What's Happening around the CU Boulder campus.

Login

USERNAME

Username

PASSWORD

\*\*\*\*\*

DON'T HAVE AN ACCOUNT? SIGN UP

LOGIN

Home Page

Buff's Bulletin

Search By Event or Club

Sign Up

Login

Upcoming Events

Event Name

Location

Hosted By: Club Name

Start Date - End Date

Event Name

Location

Hosted By: Club Name

Start Date - End Date

Event Name

Location

Hosted By: Club Name

Start Date - End Date

Event Name

Location

Hosted By: Club Name

Start Date - End Date

Filter By Date

Event Categories

New Event

Buff's Bulletin

Search By Event or Club

Sign Up

Login

My Account

Upcoming Events

Event Name

Location

Hosted By: Club Name

Start Date - End Date

Event Name

Location

Hosted By: Club Name

Start Date - End Date

Event Name

Location

Hosted By: Club Name

Start Date - End Date

Event Name

Location

Hosted By: Club Name

Start Date - End Date

Filter By Date

Event Categories

New Event

Event Name

START TIME

00:00 AM

END TIME

00:00 AM

EVENT ROOM NUMBER

Room Number

EVENT DATE

UNDO/REDO

EVENT LOCATION

Select Building

EVENT DESCRIPTION

Event Description

CREATE EVENT

CLOSE

My Profile

Buff's Bulletin

Search By Event or Club

My Account

Your Profile

PROFILE PICTURE

USERNAME

username

EDIT PROFILE

My Friends

Buff's Bulletin

Search By Event or Club

My Account

Search For New Friends

Enter Username

SEND FRIEND REQUEST

SHOW FRIEND REQUESTS

SHOW FRIENDS

Pending Friend Requests

INCOMING FRIEND REQUESTS

SENT FRIEND REQUESTS

PENDING FRIEND REQUESTS

Current Friends

CURRENT FRIEND

CURRENT FRIEND

CURRENT FRIEND

CURRENT FRIEND

My Events

Buff's Bulletin

Search By Event or Club

My Account

My Events

All events you have RSVP'd to

Event Name

Description: Long Event Description

Hosted By: Club Name

Room Number: Location

Location: Location

Map Focus

Event Name

Description: Long Event Description

Hosted By: Club Name

Room Number: Location

Location: Location

Map Focus

Event Name

Description: Long Event Description

Hosted By: Club Name

Room Number: Location

Location: Location

Map Focus

Event Name

Description: Long Event Description

Hosted By: Club Name

Room Number: Location

Location: Location

Map Focus

Search Results

Buff's Bulletin

Search By Event or Club

My Account

Results for Search

Search by Club

Event Name

Description: Long Event Description

Hosted By: Club Name

Room Number: Location

Location: Location

Event Name

Description: Long Event Description

Hosted By: Club Name

Room Number: Location

Location: Location

Event Name

Description: Long Event Description

Hosted By: Club Name

Room Number: Location

Location: Location

Event Name

Description: Long Event Description

Hosted By: Club Name

Room Number: Location

Location: Location

Event Name

Description: Long Event Description

Hosted By: Club Name

Room Number: Location

Location: Location

Event Name

Description: Long Event Description

Hosted By: Club Name

Room Number: Location

Location: Location

Event Page

Buff's Bulletin

Search By Event or Club

My Account

Event Name

Hosted By: Club Name

Location: Location

Room Number: Location

Start Time - End Time

Description

Long Event Description

RSVP

Leave a Comment

Your Comment Here

Post Comment

Comments

User: Comment Text

Anonymous: Comment Text

User: Comment Text

Anonymous: Comment Text

Event Attendees

RSVP'd User

RSVP'd User

RSVP'd User

RSVP'd User

## Automated Testing

We explicitly used two types of testing in our testing plan, unit testing and user testing. To ensure that essential routes worked correctly every time, we implemented automated unit testing using Mocha and Chai to automate and validate three routes: /register, /login, and /new-event.

Register Automated Test Cases		
Positive / Negative	Sent Data	Expected Result
Positive (Not Admin)	username: 'test_user_1' password: 'test_password' useradmin: false	redirects to /login (status 302)
Positive (Admin, Existing Club)	username: 'test_user_2' password: 'test_password' useradmin: true forclub: 'Club1' createclub: false	redirects to /login (status 302)
Positive (Admin, New Club)	username: 'test_user_3' password: 'test_password' useradmin: true forclub: 'NOT CLUB' createclub: true	redirects to /login (status 302)
Negative (Existing Username)	username: 'Default Organizer 1' password: 'test_password' useradmin: false	renders pages/register (status 400)
Negative (No Matching Club)	username: 'test_user_5' password: 'test_password' useradmin: true forclub: 'NOT CLUB' createclub: false	renders pages/register (status 400)

Login Automated Test Cases		
Positive / Negative	Sent Data	Expected Result
Positive	username: 'Default Organizer 1' password: '123'	redirects to / (status 302)
Negative (No Username)	username: 'dont name a user this' password: 'test_password'	redirects to /register (status 302)
Negative (Wrong Password)	username: 'Default Organizer 1' password: 'wrong'	renders pages/login (status 400)

New Event Automated Test Cases		
Positive / Negative	Sent Data	Expected Result
Positive	event_name: 'TestEvent' event_building: 1 event_room_number: '100' event_date: '2025-12-31' event_start_time: '12:00' event_end_time: '12:30' event_club: 1 event_description: 'Test Event Description'	redirects to / (status 302)
Negative (Wrong Building Format)	event_name: 'TestEvent' event_building: 'Stearns West' event_room_number: '100' event_date: '2025-12-31' event_start_time: '12:00' event_end_time: '12:30' event_club: 1 event_description: 'Test Event Description'	renders pages/home (status 400)

New Event Automated Test Cases		
Positive / Negative	Sent Data	Expected Result
negative (Wrong Club Format)	event_name: 'TestEvent' event_building: 1 event_room_number: '100' event_date: '2025-12-31' event_start_time: '12:00' event_end_time: '12:30' event_club: 'Residence Life' event_description: 'Test Event Description'	renders pages/home (status 400)
negative (Missing Info)	event_name: 'TestEvent' event_building: 1 event_room_number: '100' event_date: '' event_start_time: '12:00' event_end_time: '12:30' event_club: 1 event_description: 'Test Event Description'	renders pages/home (status 400)

## User Testing

In addition to automated testing, we had volunteer users from outside of the class (but familiar with CU's campus and clubs) test the website in two phases. The first of which, we had them simply explore and play around with the website to understand some of its features. Then, to see how intuitive each action was, we asked them to perform a task without describing how to do that task. If the user didn't know how, or couldn't figure it out, we'd then instruct them on where to go to complete the task. Throughout both of these phases, we observed and took notes. Finally, we asked users about their experience, to get their direct feedback.

User Testing Observations			
Activity	Expected Action	Result / Observations	User Feedback
Navigate to where you could find more information about an event	Click on an event in the sidebar	Very quickly completed task. Consistent with use case.	Pretty user Friendly. Natural to Click on Things for Information.
Find all events from the club 'Environmental Center'	Enter 'Environmental Center' into the Search Bar and press enter. Click on Club Name.	User took a while to use search bar. Once they used search bar, task completed very quickly.	Search bar works a lot better than other websites.
Post an anonymous comment on any event	Navigate to the event's details page, write something in the comment box, and press 'Comment'	Task completed very quickly. Consistent with use case.	Buttons are very clear what they do.

The testers also commented on how professional and easy to use the website was. The only feature one user didn't automatically explore on their own was the pin-color dropdown, but appreciated the resource once shown.

## Deployment

<https://buffs-bulletin.onrender.com>