

Final Report

Scrum Master: Jingdi Zhang

Product Owner: Colby Mainard

Developers: Fatma I, Hayoung Jeon, Colby Mainard, Peiwen Wang, Raghu D V, Jingdi Zhang

PivotalTracker: <https://www.pivotaltracker.com/n/projects/2492399>

GitHub Repository: <https://github.com/ColbyMainard/DevHub>

Heroku Deployment: <https://agile-springs-16363.herokuapp.com/>

Link to Poster Presentation: <https://www.youtube.com/watch?v=24MvTVmEyGk>

Link to Application Demo: <https://www.youtube.com/watch?v=WtzhN5Nfc5w>

Summary

Our customer wanted to create the DevHub site to allow developers of all skill levels to boast about their current projects or recruit members to new and existing projects in a safe, moderated environment. This project would be useful to experienced developers as a place to showcase their work, new developers to look for cool projects, and open-source developers to advertise their current projects.

To enable this, we have implemented an application that keeps up-to-date records of both users and posts, while allowing for easy searching of both. Users can be promoted to moderator (though moderator-specific features accessible through the moderator portal are still pending). Posts can also be liked/disliked. Featuring posts (one feature accessible to moderators) has backend support but has not been completed.

All User Stories

Completed User Stories for this Project

#	User Story	Description	Point	Implementation
1	Create new user	As a prospective new user I want to make an account So that I can post on the site and use additional features	1	We created a criteria for each field.
2	View all users	As someone with access to the site I want to be able to view all users To find my friends accounts	1	You may view all users if you're logged in.
3	View posts	As anyone who visits the site I want to be able to view all posts So I can get more information on projects	1	You may view all posts whether you're logged in or not.
4	Edit posts	As a user or moderator I would like to be able to edit my previous posts So that I can update the status of a project	1	You may edit the post then update it whether you're logged in or not.

5	Login to account	As a user I want to log in So that I can post	1	You may log in if you have signed up before.
6	Create posts	As a user or moderator I want to make posts So that I can share my current projects with the online community	1	You can create posts if you're logged in.
7	Search posts by user	As anyone who can view the site I want to be able to search by username So that I can view posts from people I know	1	Instead of searching, we can click the user, so we can see all posts the user posted.
8	Sorting posts	As anyone who can access the site I want to be able to sort posts by post time or popularity So I can find posts more relevant to me	1	We sorted by post title and the last update.
9	Edit user	As a user I want to be able to edit my own profile So that I can change my information without creating a new account	1	You may only edit yourself.
10	Delete old posts	As a user or moderator I want to be able to delete old posts So that I can control content about my past projects	1	Only the author may delete the post.
11	Search by keyword_v1	As anyone who can visit the site I want to be able to search posts by keyword in title So that I can find posts more relevant to me	1	We used to search it by keyword, but we modified it at the user story #15.
12	Delete user	As a user, I would like to delete myself So that I can protect my own data	1	You may only delete yourself.
13	Upvote post	As a user I would like to be able to upvote posts So that I encourage people to post similar projects	1	You may change your upvote/downvote if you want to change your mind later.
14	Add post to featured posts	As a moderator I want to be able to add a post to a list of featured posts So that I can showcase some of the best projects on the site	1	You may work with the post as an admin.
15	Search by topic	As anyone who can visit the site I want to be able to search by topic So I can view posts more relevant to me	1	This is for the advanced search.
16	Allow project description to have markup	As a user I want to give posts to have markup So that they can either see or modify the markup of the post	1	You can see the markup whether you're logged in or not.

17	Promote to moderator	As a moderator I want to elevate an existing user to moderator So that they can help monitor the contents of the site	1	We enabled the admins to go to certain pages which are for only admins.
18	Save posts	As a user or moderator I want to save posts for later So that I can come back to projects I have an interest in	1	You can save the posts then update it later.

User Stories to be Implemented in the Future

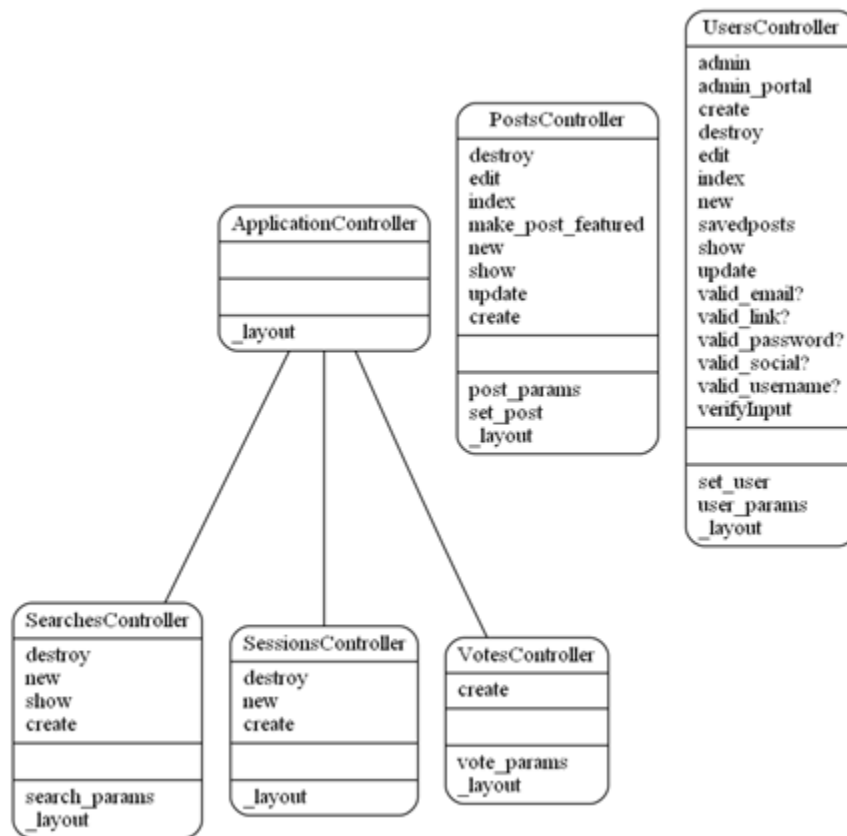
Due to the short amount of time, we could not work on these user stories. These are the user stories that can be handled by future programmers who will work on this project.

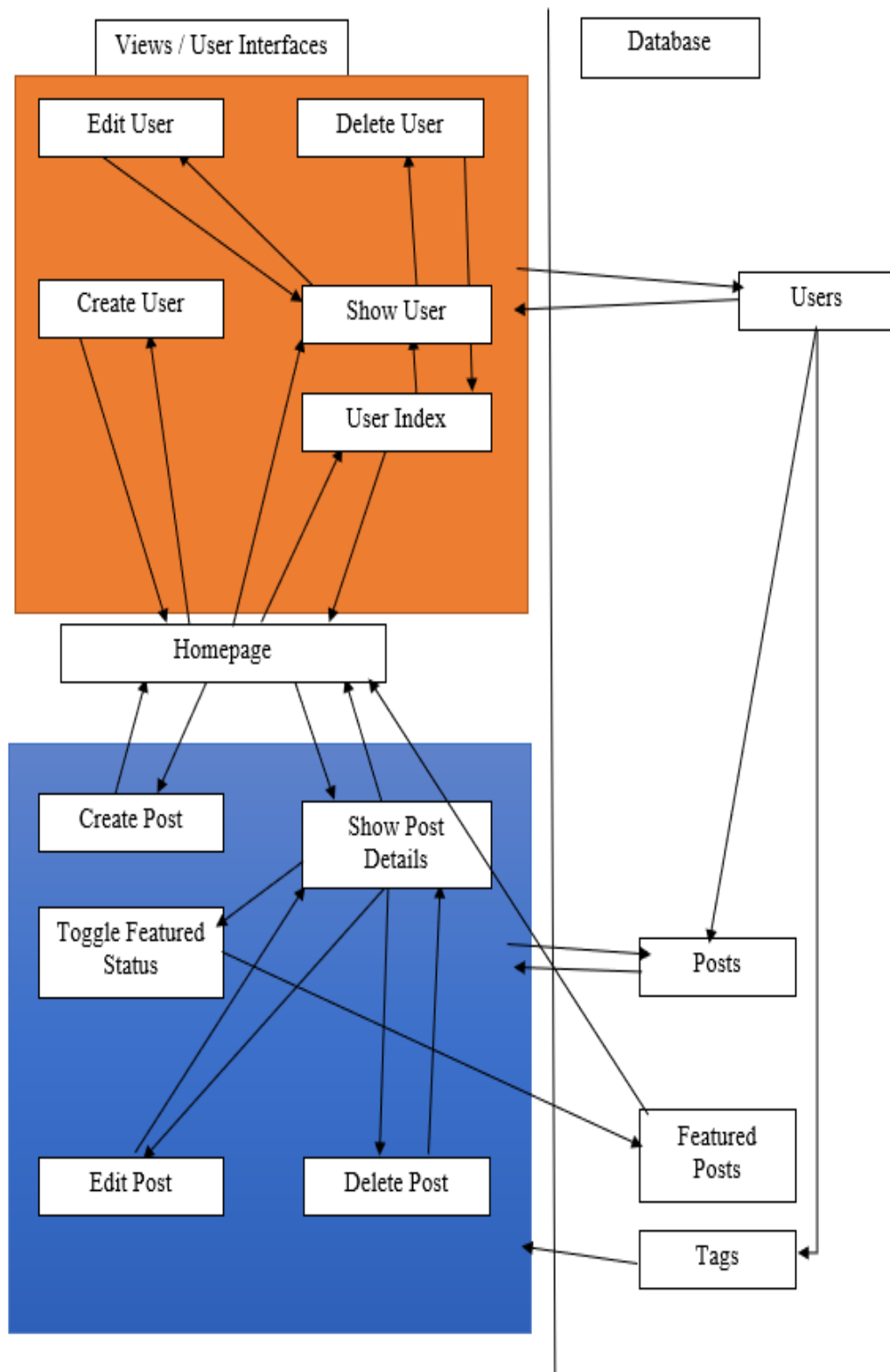
#	User Story	Description	Point
19	Create tags for post	As a moderator I would like to create tags for posts So that users can display topic of post	1
20	Add tags to post	As a user I want to add tags to my post So that I can categorize my posts easier.	1
21	Demote from moderator	As a moderator I would like to demote another moderator to regular user In case I no longer want them as a moderator	1
22	Search by tag	As a user I want to find posts with specific tags So that I can find posts that are most interesting to me.	1
23	Edit tags	As a moderator I would like to edit an existing tag So that I can correct typos	1
24	Delete Tags	As a moderator I would like to delete old tags So that irrelevant tags are no longer on the site.	1
25	Remove post from list of featured posts	As a moderator I want to be able to remove a post from a list of featured posts So that I can declutter the featured posts	1
26	Delete other users	As a moderator I want to delete non-moderator users To prevent utter chaos and spam on the site	1
27	Delete other users' posts	As a moderator I want to delete other users posts So that I can control the content of the site	1
28	Edit other users' posts	As a moderator	1

		I want to edit other user's posts So that I can remove inappropriate content	
29	Password reset	As a user or moderator I should be able to reset my password So that I don't lose access to my account	2
30	Make comments	As a user or moderator I want to be able to comment on other users' posts So that I can share my thoughts on the project	1
31	Regulate comments	As a user I want to moderate comments on my posts So that people making inappropriate comments on my posts	1

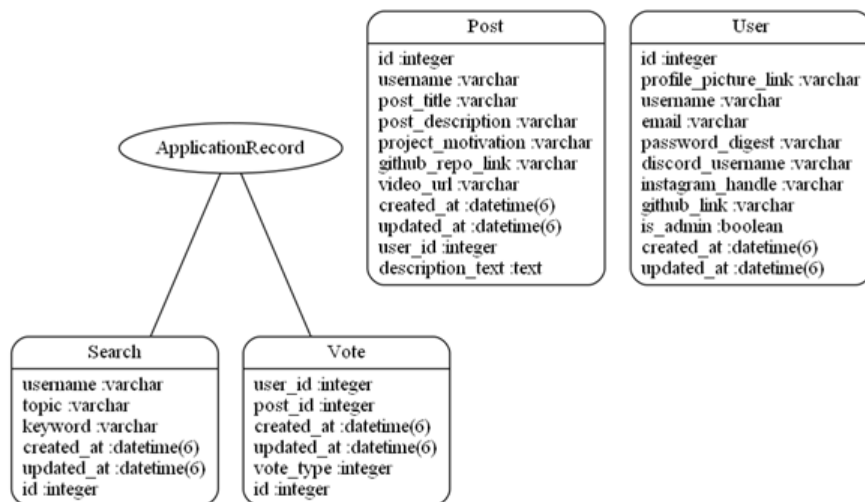
Design Diagram

Relationships between controllers (via Railroady gem):

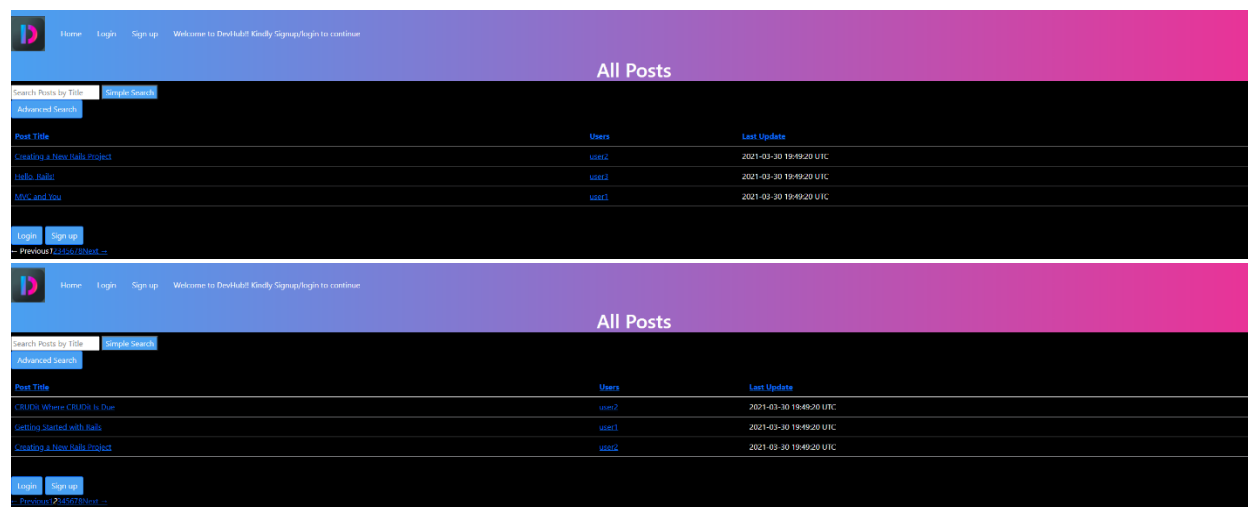




Relationship between models (via Railway Gem):



Website Screenshots



Create Account

Profile Picture

Username

Email

Password


Verify Password

Discord Username

Instagram

GitHub

Admin?



[Home](#)
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All Posts

Post Title	Users	Last Update
Creating a New Rails Project	user2	2021-03-30 19:49:20 UTC
Hello, Rails!	user2	2021-03-30 19:49:20 UTC
MVC and You	user1	2021-03-30 19:49:20 UTC

[← Previous 7,345,678 Post →](#)

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Create New Post

Details of Post


Title

Description

Motivation

GitHub Link

URL of Video


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[← Previous 7,345,678 Post →](#)

Test Post with Embedding was successfully created


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All Posts

Post Title	Users	Last Update
gnc111	user10000	2021-04-11 23:29:28 UTC
Getting Started with Rails	user1	2021-05-03 01:17:48 UTC
Test Post with formatting	ColbyMainard	2021-05-03 21:36:15 UTC

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Test Post with formatting

- Author: [ColbyMainard](#)
- Last updated on: 2021-05-03 21:36:15 UTC

Description:

TEST HEADER

TEST SUBHEADER

italics

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Edit Post

Title

Description

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### TEST HEADER
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Motivation

GitHub Link

URL of Video


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Test Post with formatting

- Author: [ColbyMainard](#)
- Last updated on: 2021-05-03 21:37:07 UTC

Description:

TEST HEADER

TEST SUBHEADER

italics

bold

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The image shows two screenshots of a web application. The top screenshot displays a table titled "All Users" with columns for Username, Email, Created time, Updated time, and More info. The bottom screenshot shows a "User Profile" page for a user named ColbyMainard, displaying their email, Discord Username, Instagram Handle, and Github Handle, along with buttons for Saved Posts, Delete, and Edit.

Username	Email	Created time	Updated time	More info
user1	11111@gmail.com	2021-04-11 02:09:58 UTC	2021-03-30 19:49:20 UTC	more info
user2	22222@gmail.com	2021-04-11 02:09:58 UTC	2021-03-30 19:49:20 UTC	more info
user3	33333@gmail.com	2021-04-11 02:09:58 UTC	2021-03-30 19:49:20 UTC	more info
user4	44444@gmail.com	2021-04-11 02:09:58 UTC	2021-03-30 19:49:20 UTC	more info
user5	55555@gmail.com	2021-04-11 02:09:58 UTC	2021-03-30 19:49:20 UTC	more info
user12345	yunfeizhang@gmail.com	2021-04-11 03:42:06 UTC	2021-03-30 19:49:20 UTC	more info
user254321	22222@gmail.com	2021-04-11 23:27:21 UTC	2021-04-12 01:00:12 UTC	more info
ColbyMainard	cmythman@gmail.com	2021-04-14 16:00:48 UTC	2021-04-14 16:00:48 UTC	more info
user2021	user2021@gmail.com	2021-05-03 01:17:21 UTC	2021-05-03 01:21:34 UTC	more info

[Add new user](#) [Admin Panel](#)

User Profile

Username: ColbyMainard

Email: cmythman@gmail.com

Discord Username: colbymainard#3777

Instagram Handle: colby_mainard

Github Handle: <https://github.com/ColbyMainard>

[Saved Posts](#)

[Delete](#)

[Edit](#)

Iterations

Iteration 0

We have accomplished 6 user stories: #4, 5, 6, 7, 8, and 9 respectively. We have focused on implementing the posts feature for our website. We earned 6 points total for this iteration. Since we have started the project early, we finished 3 user stories: #1, 2, and 3 before this iteration. We could present the website with basic functions from this iteration.

Iteration 1

We have accomplished 3 user stories: #10, 11, and 12 respectively. We earned 3 points total for this iteration. This iteration was a rough period for our team since most of our team members had been burdened with other tasks not related to our project. The unfinished user stories were: #13, 14, 16, and 17. These user stories were partially finished, so each team member has planned what parts to finish for the next iteration.

Iteration 2

We have accomplished 6 user stories: #13, 14, 15, 16, 17, and 18 respectively. The user story #15 is the upgraded version of user story #11. We earned 6 points total for this iteration. Besides the user stories, we have added and developed BDD/TDD and css.

Final Iteration

We have not worked on more user stories for this iteration. We continued working on the BDD/TDD process then added css features to the website, so our website can have a better look for the users. The theme implemented here was suggested by the customer

Customer Meeting Dates and Accomplishments

Meeting Date	What occurred in the meeting
Sunday April 4th, 6PM, Zoom	Demo of all features completed that week, discussed additional user stories
Sunday, April 18, 6PM, Zoom	Demo of all features completed that week, discussed adding tags to posts
Monday, April 26, 6PM, Zoom	Demo of all features completed that week, discussed changes to CSS

BDD/TDD process

The packages we are using are Rspec and Cucumber. TDD could help developers find the bugs quickly since we created multiple unit tests. We created scenario tests before implementing codes and implemented them to let the tests pass. BDD enhances the collaboration between customers and developers. Cucumber feature tests can be written in natural language so it's easy to understand. BDD could speed up the development process since developers could get a clear understanding of customers' needs and can automate the test.

Management approach

Due to the distributed nature of the team and difficulties related to finding common time to meet up outside of class, team meetings were conducted every Saturday with check ins via slack as necessary. During each meeting, group members explained what they achieved and what they plan to do in the following week. There is also an additional meeting with TA every Wednesday to discuss progress and problems. There were very few spikes, but they were mostly successful and were later integrated into the project.

Totally we have fifty one completed pull requests. Each pull request will automatically create a new branch and we will delete the branch after it successfully merged to main. One branch called “h” is for heroku deployment. Totally we add three tags and each represents one iteration.

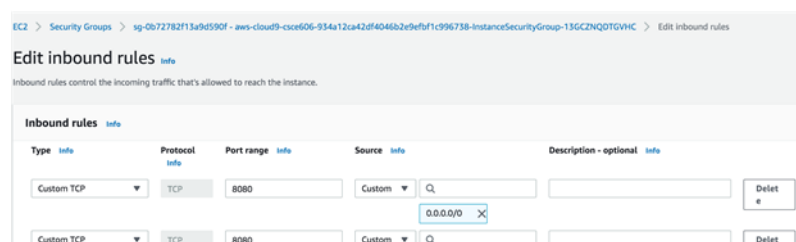
Problems related to Heroku

1. We had to change the database from sqlite to postgres through changing the database.yml file.
2. We also encountered several strange merge conflicts in heroku branch and the main branch. The problem could easily be resolved after viewing the heroku deployment log.

Issue with AWS, Github and other tools

AWS

Some group members used AWS as the development environment, and we discovered several problems. We had to modify the security group settings in order to run the rails server. In AWS, we modify the inbound rule and set the port range to 8080. Then run rails s -b 0.0.0.0 started working.



SimpleCov

Currently under-reporting the number of lines of code tested as it does not seem to take into account the cucumber tests

Other development issue

We encountered the SQLite (3.7.17) version problem and we were unable to upgrade through the gem package. We had to manually download the SQLite(3.8.11) version through wget and upgrade it through yum install.

```
wget https://kojipkgs.fedoraproject.org/packages/sqlite/3.8.11/1.fc21/x86_64/sqlite-devel-3.8.11-1.fc21.x86_64.rpm
wget https://kojipkgs.fedoraproject.org/packages/sqlite/3.8.11/1.fc21/x86_64/sqlite-3.8.11-1.fc21.x86_64.rpm
yum install sqlite-3.8.11-1.fc21.x86_64.rpm sqlite-devel-3.8.11-1.fc21.x86_64.rpm
```

Describe GEMs / tools

During the course of this project, several GEMs were useful in understanding the project. Cucumber and RSpec handled testing, with SimpleCov showing us the unit test coverage that our code had. Flog was included to help the customer identify the most abused pieces of code in production, while Reek and Flay were used to identify areas in the code that could require later improvement or DRYing out. Font Awesome and Bootstrap CSS/javascrpts were used as well to make the UI look better.