After the sprint 0 review with the class/teacher it was noted that I should focus primarily on two or three main attributes for the project in order to actually accomplish it in the given time. So I have decided to focus on the attributes: Users and user login, collections page, and explore comics page. This allows me to make these the best I can, and if I have time and the other elements go by fast/well then I can add things like favorites pages and detailed comic views etc.

#### 01/17

Going to try and work out the server today and also when I should be sending requests for data to the database and when i should send them to the marvel API. I think I already have a basic idea. Got database kinda set up (meaning I got the MongoDB atlas up and running but still need to actually change the database to be what I need it to be). Got the search for the explore page working for the most part (it does not do partial searches has to be a complete comic title)!! Also got database schema kinda set up as well as part of the server (that is the explore part) it does not do partial searches though, has to be full comic title

### 01/20

Going to try and work on the user login and database today. Need to do some more research on Oauth2 in order to do that though. Google authentication is somewhat setup, the backend and frontend communication for pages is iffy though because of the different ports being used when I do local hosting for development.

### 01/21

Worked on and accomplished user session persistence and storing and retrieving user information in the mongoDB atlas database. Users now can have unique accounts via Oatuh2 google authentication.

### 01/22

Working on allowing the user to change their profile information. Mostly works (can change name, username, etc), the profile picture change/upload needs to be set up on the server so it can have a URL to actually display correctly. And there is no verification for changing an email address (although since it is using Oauth2 for authorization I think I might make the user unable to change their Email since it is directly connected to their account.) it also does not currently support password changing since it is using Oauth2 google. Started working on the collection gallery page, allowing users to add collections and have them show up on the page (and the collection is added to the users user data collections), still need to ensure that the user can click on a collection to view it and the comics within.

#### 01/23

Working on letting the user add comics to a collection from the explore page. Had some difficulties with my original comic schema as it didn't follow the marvel API comic schema as well as it should have so had to adjust that as well.

Going to be taking a break from implementing features and focus on testing what I currently have with actual stress testing and MSTesting. Today mostly focused on researching possible testing methods and equipment I can use to help me mock test backend. So far i have RTL(react testing library) for frontend react-vite components, and jest for javascript server, mongodb memory server for the mongodb database (it essentially creates a database in the memory that you can test with) another option for this is mockito. And then finally for api calls and testing I found something called supertest which does api endpoint testing. This being said vitest supposedly can test frontend AND backend for react vite applications and has a lot of documentation on testing: <a href="https://vitest.dev/config/">https://vitest.dev/config/</a> the only thing it can do is testing inner database logic (but integration testing is not required for this).

https://github.com/typegoose/mongodb-memory-server https://www.accelq.com/blog/supertest/#:~:text=Supertest%20is%20a%20Node.,abstraction%2 0to%20test%20HTTP%20requests.

## 01/28

Trying to actually setup some tests for my application. Started with attempting tests for the backend components such as the server which contains middleware, authentication, and routing. That did not go very well and I definitely need some help or an outside opinion on how to test my backend. Moved onto the front end and tried to write some tests for that, they were easy and passed on the first try. I am unsure if I even NEED to test the frontend for this application though. I will consult the professor on thursday. I also ended up using jest for backend and vitest for frontend, the backend needed some form of mock software (whether that is created manually by me or is a library doesnt matter) and the api I am attempting to use supertest.

### 01/29

Didn't do much today for this project I updated the readme and talked a little bit with the professor about testing solutions. Looked into what he recommended a little bit. Was planning on trying to implement it tomorrow.

### 01/30

Spent all of today working on tests for the userRoutes file seeing as it handles a lot of logic for the application. Took a long time but by the end of the day I was able to write and understand all the unit tests for the file and get them to pass (there were only a few unexpected errors for the file that were quickly fixed once i understood what was actually going wrong).

# 01/31

Working on trying to write tests for the database schema, really just ensuring that when things are created or not created that they are handled properly. Eventually got all tests to pass and run, there was no issues with the actual schema code just how i was running/writing tests.

02/03

Once again just working on testing files, today its writing tests for server.js (and hopefully passport.js as well). I hope to finish writing all the backend tests today. Only got 5 out of 12 tests to work before I got too frustrated, will probably ask the professor for help tomorrow. Managed to figure out one of my big problems without the professors help, I was not mocking the authentication correctly in my test.

### 02/05

About half of the server tests are still returning errors but they should be relatively easy fixes so I am going to work on fixing those today. The current mocking of authentication flow in the tests is giving me a LOT of trouble, I am unsure what way is the proper way to do it and all the ways i have currently tried don't seem to work very well. Resources I was looking into when I wrapped up for the day:

<u>https://www.npmjs.com/package/oauth2-mock-server</u>
(github for above link: <a href="https://github.com/navikt/mock-oauth2-server">https://github.com/navikt/mock-oauth2-server</a> )A mock server that provides authentication tokens and can be put up and torn down easily/at will 02/06

Working on trying to figure out authentication again, it has something to do with my passport serialization and deserialization it isn't doing session storage in my testing environment for whatever reason. I actually managed to get it working!! It took a lot of time and breaking things down but all my authentication tests pass along with the unauthenticated tests in my server testing file. All that is left now for testing is front end stuff.

### 02/10

Worked on front end testing today, just making sure all the components and pages (and the components within them) are working properly).

## 02/11

Just updating documentation today to match what I currently have. Mostly trying to get the readme done (as I have barely worked on it thus far).

## 02/12

Going to finish up the front-end testing today. It went by pretty quickly for the most part with only a few problems I had to fix/figure out.

## 02/13

Cleaning up all my code and adding comments where necessary. Changing up and adding more css to make the cite more cohesive. Ran in to a mongoDB issue in the non testing environment I didn't catch before so had to figure that out/fix it.

# 02/17

Added a delete comics button in the collection folder that i need to add a test for. Fixing a couple tests because I added and deleted a few unnecessary things from the pages and routes on 02/13.

Trying to fix a bug where if you have duplicate comics in it and delete one of them it will remove the information for the other but keep the card making it just an empty box until you refresh and then the comic displays information. Changing up some more css to make it more appealing. Noticed a bug where the comic are not displaying creators in the collections page.

### 02/19

Added a delete collection button, function, and backend route. Creating tests that i did not get around to yesterday because I was fixing bugs that came up. So the things that I changed needed to have their tests updated and some tests added/deleted as well.

#### 02/24

Trying to accomplish a partial search with comics (meaning the user no longer has to enter the full title of the comic). There is a search type parameter within marvels that searches by what the title starts with rather than what the title actually is. Adding multiple buttons to the page to initiate different types of searches (one for titles, one for characters, one for series). The characters and series return comics by retrieving the first character/series when searched and then searching for comics using this /v1/public/characters/{characterId}/comics or /v1/public/series/{seriesId}/comics.

## 02/25

Working entirely on the look and feel of the website. Updating CSS and making it look overall just better Than it does now.

### 02/26

Making it so when searched the comics that show up only display thumbnail and title and then when they are clicked it shows a detailed view of the comic which includes: thumbnail, title, authors/creators, description, and possible characters in the comic and the series it belongs to.

### 02/27

Working on more of the same from yesterday. Layout and feel of the website and how intuitive it is. Encountered an error while trying to remove comics from the collection with the new layout, it did not work. Had to debug and fix that. Also had an error about how my comics were being stored that needed to be fixed.

### 03/03

Doing a little more work on look and feel (mostly confirmation prompts for deleting things and adding things). Updating tests for the new layout and server paths that have been added since last test update. Finished updating frontend tests but not backend tests.

## 03/04

Fixing up and adding backend tests for all the new stuff that has been completed/added since last backend test update. Had a lot of trouble getting one test to authenticate properly.

Still trying to figure out that buggy test from yesterday. Moved the route/test back into the server file for authentication purposes and it solved the testing problem. Fixing other small problems.

#### 03/06

Adding a new feature: favorites. This allows a user to favorite comics and add them to a favorites list. This list will be stored and shown in a new home page of the website. Today mainly focused on getting the home page set up.

### 03/18

Going to be making sure session persistence does what it is supposed to do on my page (right now starting it up always takes you to login even if you have an active session I want to change that).

### 03/19

Trying to set up my website to be hosted on AWS for both frontend and backend. Today I was mostly just learning about AWS and trying to set the basics up like security and such. Making sure everything is running correctly for demo today on my laptop.

# 03/20

Going through code and changing anything that is hardcoded for local host so that frontend actually works on AWS static frontend application. Setting up the backend stuff on AWS and trying to get it to run. Using an s3 bucket for a static frontend and an elastic beanstalk for backend but i cant get it to actually work. The front end IS hosting my frontend but without the backend connection it is useless.

### 03/24

Trying to get the AWS backend to work. Currently it is not working or returning anything. The uploaded version of my original backend had a red status health and it took me a while to debug (because i had to re-deploy and enable logs). Eventually i discovered it was not downloading all the necessary libraries because my package.json did not contain everything (for some odd reason). Still couldn't get it to work it is still having the axios problem and i cannot figure out why. Will keep working on it tomorrow.

### 03/25

Doing some research on why axios and passport are not working on elastic beanstalk even though the modules are included in my package.json.

 Need a route 53 (?) this would be good for a nice looking domain name (aka marvelnexus.com etc)

### 03/26

Still trying to get backend working. Finally got the backend to respond when i just go to the backend link (its now giving the backend is live which it was not before).

Need to get my frontend and backend setup on https so that the Oauth2 works for the website. Need a domain name and a certificate looking into free resources for those.

#### 03/31

Getting a domain name and setting up https on AWS. Was having some issues with the routes and certificates for a little while. Having some errors with the setup domains, need to debug and problem solve and will finish up doing that tomorrow. The cloudfront is currently the issue.

### 04/01

Trying to get the new domains to be connected. (they given links of AWS work but not the domains i connected to them). Was able to finally get the frontend to work, still having a few problems with the backend and have not narrowed down the problem yet. Somewhat fixed backend it was a problem with the origin the frontend is calling.

### 04/02

Trying to fix backend connection problems. Got some errors fixed but now throwing different errors. I Have some issues with cookies but plan to try to figure it out tomorrow.

### 04/03

Trying to figure out the cookie persistence issue, still running into the same problems. The redirect is the issue I believe. My headers are messed up and i can't seem to fix them, i believe it is cloudfront/eb messing them up though not my actual code. So i did something wrong while setting up.

- I might need to do a new eb environment with all new configurations. Can try tomorrow.

### 04/07

Working on the same problems as last week. FINALLY got the redirect and https verification working.

### 04/09

Fixing some layout issues that came up during the AWS switch. Other small issues with looks. Also added favicon and web page title (forgot to do that at the start).

### 04/10

Working on sprint4 updates of adding a favorites section to the profile page. First getting local development running again.

## 04/14

Creating a collection card component for the collections so it is not rendered directly in the collection gallery page. Adjusting general css related to collections. Updating some documentation. Beginning to work on a "favorites" system for comics. Favorite option should

work but the heart is not toggling for some reason. Will update the profile page and that toggle tomorrow.

04/16

Fixing backend error that caused it to crash. Needed to add more protection to the JSON.

#### 04/17

Doing more for the backend fixes as I am still getting warnings. Making sure all my older tests still work and run and adding any that are needed. Fixing issues that came up when I had someone else review my website.(green check marks mean completed today) Which include:

- 1. Be able to reposition profile picture
  - a. Profile picture fix because if you edit the profile but not the profile picture the picture gets taken away.
- 2. Logout button (I have the route for this simple forgot to add in GUI for it)
- 3. Update the detail view to look different in mobile vs computer screen (have a horizontal layout for computer) and make the add to collection section better.
  - a. Make it so that the roles of the creators can be seen: inker, writer, etc.
  - b. Need to update how the collections part looks to be vertically stacked ✓
  - c. Be able to add comics to multiple collections at once ✓
- 4. Collections layout is weird when there are a lot of collections, they are not centered.
  - a. When deleting a collection for the collection gallery page it does not go away until reload.
- 5. Be allowed to create a collection in the detail view of a comic so you don't already have to have a collection.
- Try to have drop down recognition for searching
- 7. When comics fail to fetch and they succeed in fetching the failed to fetch message does not go away.
- 8. If there are a limited number of comics they should display side by side rather than on top of each other.
- 9. Be able to search for a series without having to include the full series name so that it pulls all series that start with the search query given.
- 10. Show total comics retrieved vs how many are showing on the page currently And then stuff i need to do unrelated to looks:
  - 1. Write tests for new collection card component, update any documentation needed.

# 04/18

Did another check on my backend to see if it was still throwing warnings and it is but fewer than before so going through and trying to resolve that issue again. Fixing some of the above recommendations completion are marked with  $\checkmark$ . Going to post what I have to AWS and just to make sure it also works in production mode. It does work in production mode.

### Stuff left to do:

- 1. Be able to reposition profile picture
  - a. Profile picture fix because if you edit the profile but not the profile picture the picture gets taken away.
- 2. Write tests for new collection card component, update any documentation needed.
- 3. Be allowed to create a collection in the detail view of a comic so you don't already have to have a collection.
- 4. Collections layout is weird when there are a lot of collections, they are not centered.
  - a. When deleting a collection for the collection gallery page it does not go away until reload.
- 5. Update the detail view to look different in mobile vs computer screen (have a horizontal layout for computer) and make the add to collection section better.
  - a. Make it so that the roles of the creators can be seen: inker, writer, etc.

Marvel API went down which means that none of the requests for comics will work. Looking into a different API I can use to replace the marvel API. implemented a test API enough that the website is still usable. Finishing up testing and making sure everything runs as it should. Going to push to AWS as well with the new API that is not as good but does work.