W.E.B. Dev Bois
5 College Book Swap
Spring 2018

Overview: Our application is an online social network centered around swapping books with people in your area. We've created a site that allows people near one another to communicate and plan out meetings to swap books that both parties are interested in, but have not limited them to doing so in a specific manner. Our platform also allows users to peruse through all of the currently available books that other people want to trade, and helps show them what books people are looking for in exchange.

While book swaps have been around basically since the dawn of books themselves, there are no other websites that fill the niche that we have. We are the only site that offers this service online to a massive user base. Usual bookswaps rely on large group meetings and an indoors location that can hold dozens if not hundreds of books. On the other hand, BookSwap has all of the benefits of a large group meeting through the internet, and none of the hassle of organization. Simply find a book you're interested in and trade with the owner!

In the future, we plan to add more functionality to this application by adding smart search functionality, and intuitive filtering for the browse and search result pages. Additionally, we plan to eventually have a matching system that will automatically connect users if they have a book that another user wants, and that user has a book they want.

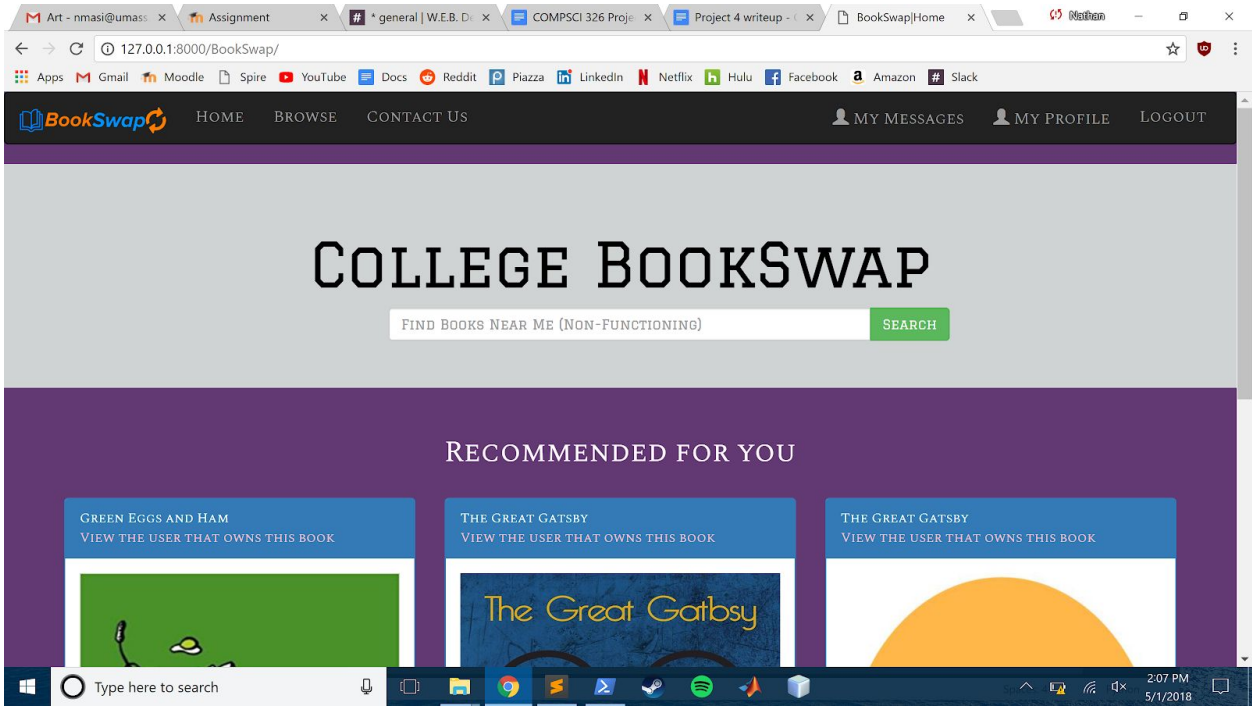
Team Members: Nick Ferneza (Ferneza), Ohad Aharoni (Alohad), James Reedie (jreedie), Tim McNamara (timothymcnam), Nate Masi (natejm47), Eric Zhou (ejzhou)

Github Repository: https://github.com/timothymcnam/BookSwap

User Interface:

View	Description	Authorization
/BookSwap/ (Index)	Our Homepage for the site, allows access to our main features including browse and the user's profile	Not Necessary
/BookSwap/browse	The view for the browse function. Here you can see all of the books currently	Not Necessary

	offered for trade. If you are logged in it does not show books you are offering.	
/BookSwap/profile/	This view shows the currently logged-in user's profile.	Necessary
/BookSwap/profiles/	This view shows the profile of a specific user, based on which number user they were when they created their account (e.g. the 5th account created was Tim McNamara's account, so his view is profiles/5)	Not Necessary
/BookSwap/addBook	The form created to add BookInstances to the databases. If a BookInstance is created of a book not in our database, then it is added as well.	Necessary
/BookSwap/addWishList	Form used in order to add books to a user's wishlist of books they're looking for	Necessary
/BookSwap/profile/editBio	Allows a user to change their bio which appears on their profile	Necessary
/accounts/login	Simple login page. Redirects to the page you were previously on on success, gives error on failure	Not Necessary
/BookSwap/contact	Contact information	Not Necessary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CONTACT US
MY MESSAGES
MY PROFILE
LOGOUT
COLLEGE BOOKSWAP
FIND BOOKS NEAR ME (NON-FUNCTIONING)
SEARCH
RECOMMENDED FOR YOU
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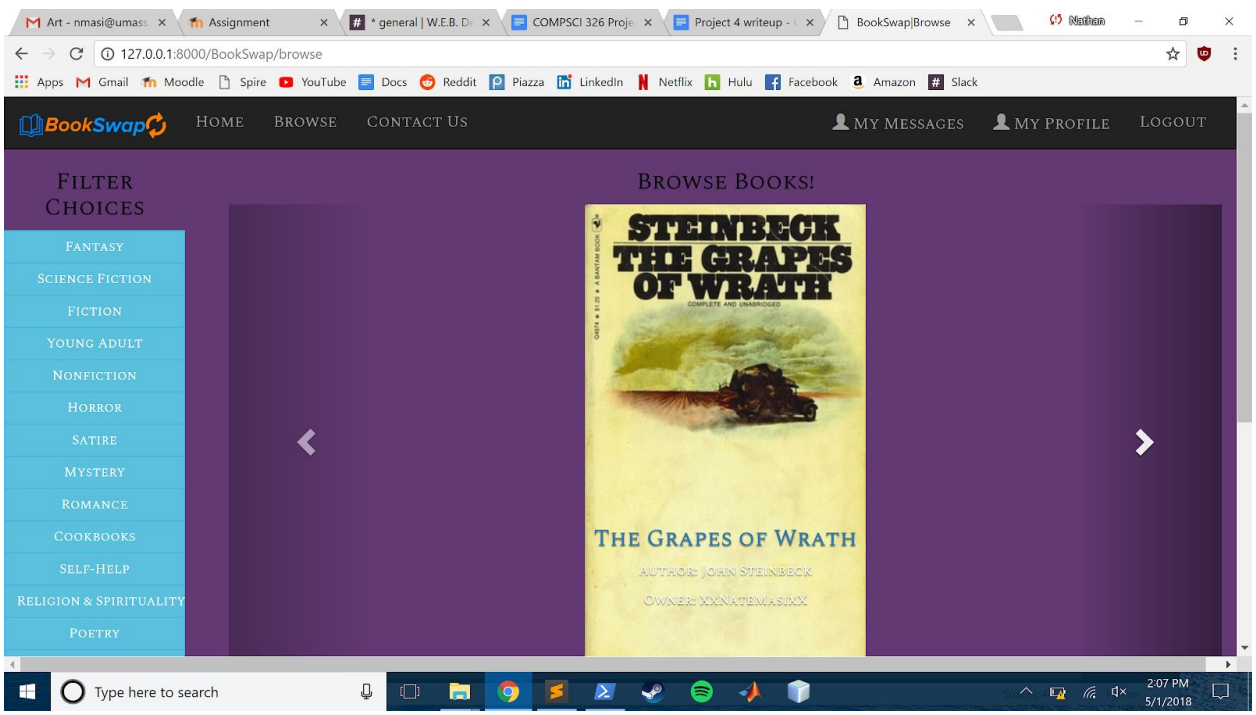
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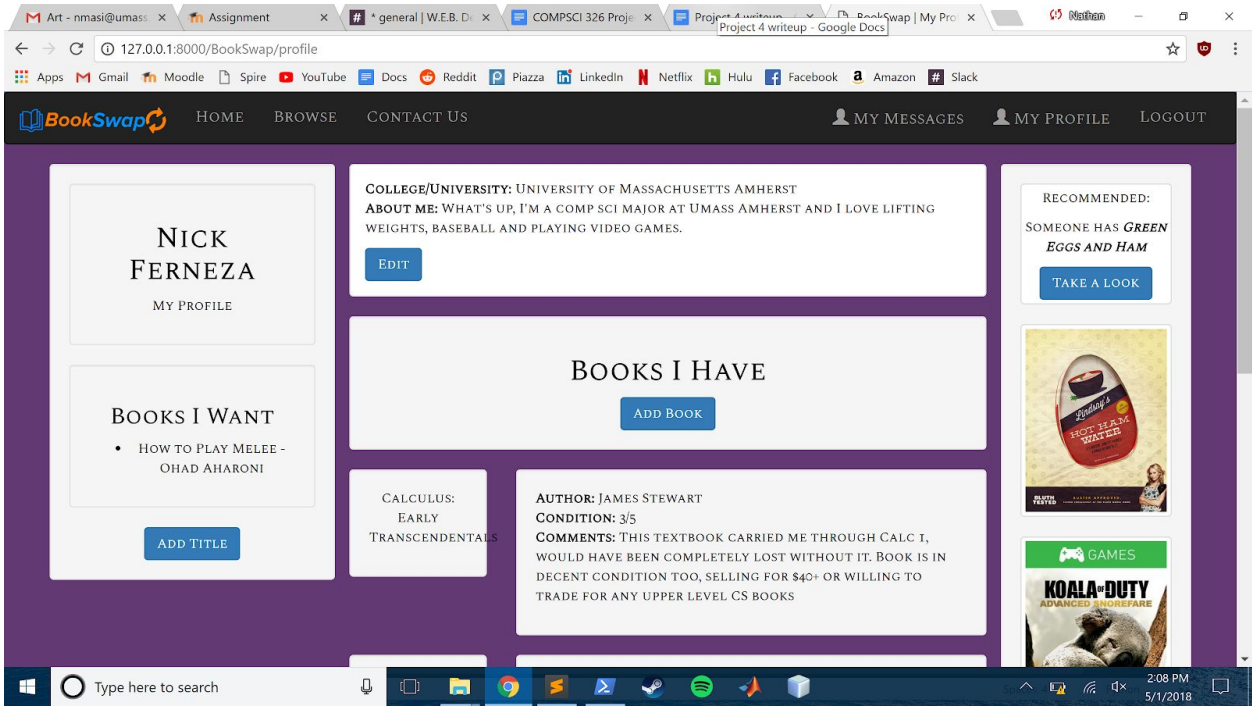
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HOW TO PLAY MELEE - OHAD AHARONI
ADD TITLE
COLLEGE/UNIVERSITY: UNIVERSITY OF MASSACHUSETTS AMHERST
ABOUT ME: WHAT'S UP, I'M A COMP SCI MAJOR AT UMASS AMHERST AND I LOVE LIFTING WEIGHTS, BASEBALL AND PLAYING VIDEO GAMES.
EDIT
BOOKS I HAVE
ADD BOOK
CALCULUS: EARLY TRANSCENDENTALS
AUTHOR: JAMES STEWART
CONDITION: 3/5
COMMENTS: THIS TEXTBOOK CARRIED ME THROUGH CALC I, WOULD HAVE BEEN COMPLETELY LOST WITHOUT IT. BOOK IS IN DECENT CONDITION TOO, SELLING FOR $40+ OR WILLING TO TRADE FOR ANY UPPER LEVEL CS BOOKS
RECOMMENDED:
SOMEONE HAS GREEN EGGS AND HAM
TAKE A LOOK
GAMES
KOALA DUTY
ADVANCED SNOREFARE
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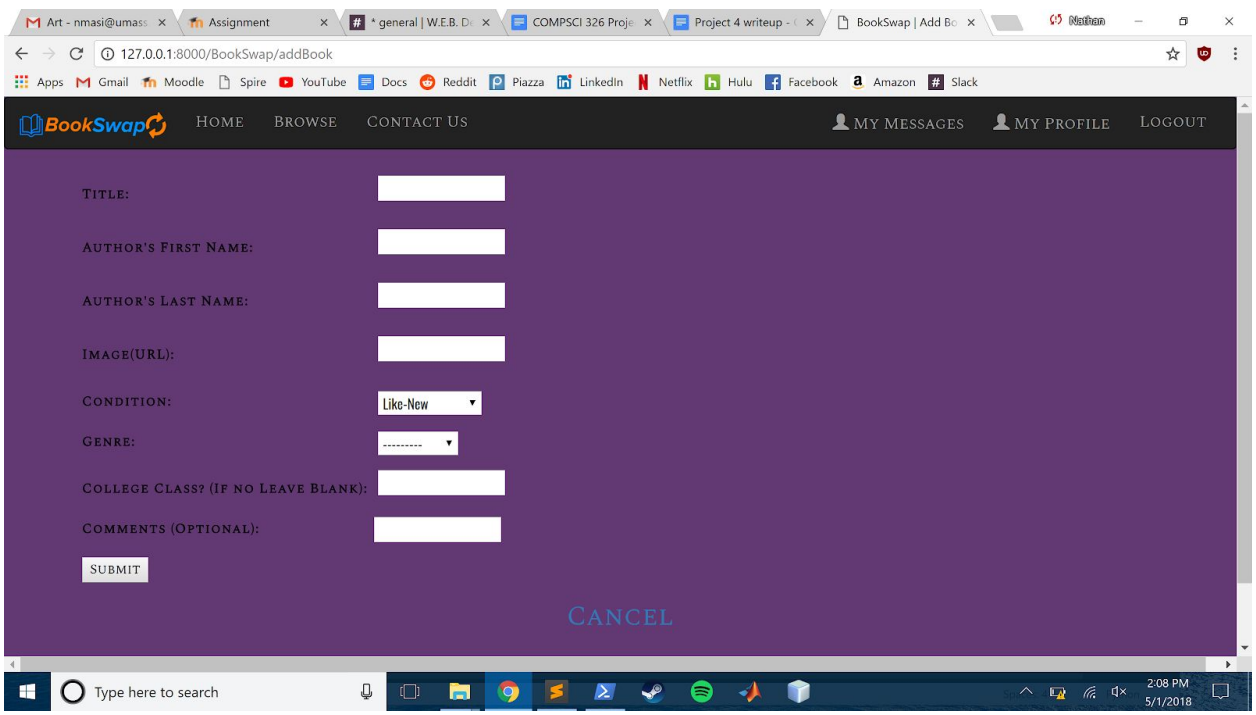
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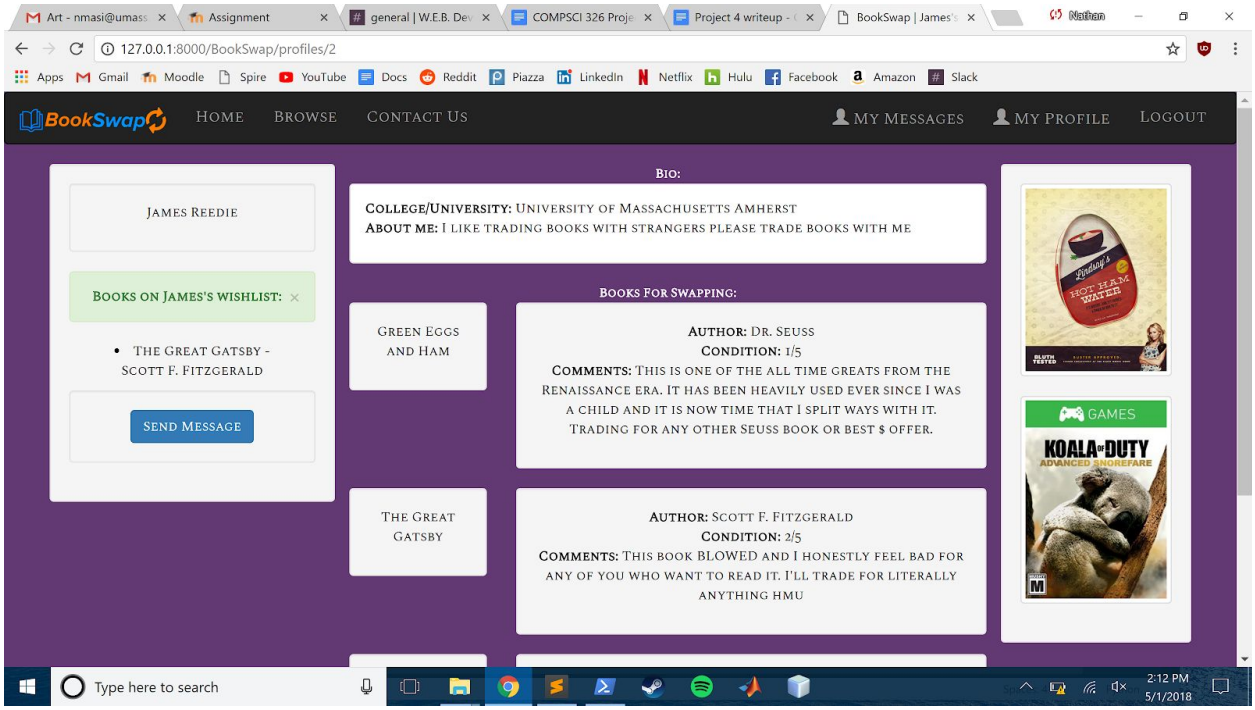
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JAMES REEDIE
BOOKS ON JAMES'S WISHLIST:
THE GREAT GATSBY - SCOTT F. FITZGERALD
SEND MESSAGE
BIO:
COLLEGE/UNIVERSITY: UNIVERSITY OF MASSACHUSETTS AMHERST
ABOUT ME: I LIKE TRADING BOOKS WITH STRANGERS PLEASE TRADE BOOKS WITH ME
BOOKS FOR SWAPPING:
GREEN EGGS AND HAM
AUTHOR: DR. SEUSS
CONDITION: 1/5
COMMENTS: THIS IS ONE OF THE ALL TIME GREATS FROM THE RENAISSANCE ERA. IT HAS BEEN HEAVILY USED EVER SINCE I WAS A CHILD AND IT IS NOW TIME THAT I SPLIT WAYS WITH IT. TRADING FOR ANY OTHER SEUSS BOOK OR BEST $ OFFER.
THE GREAT GATSBY
AUTHOR: SCOTT F. FITZGERALD
CONDITION: 2/5
COMMENTS: THIS BOOK BLOWED AND I HONESTLY FEEL BAD FOR ANY OF YOU WHO WANT TO READ IT. I'LL TRADE FOR LITERALLY ANYTHING HMU
GAMES
KOALA OF DUTY
ADVANCED SNOREFARE
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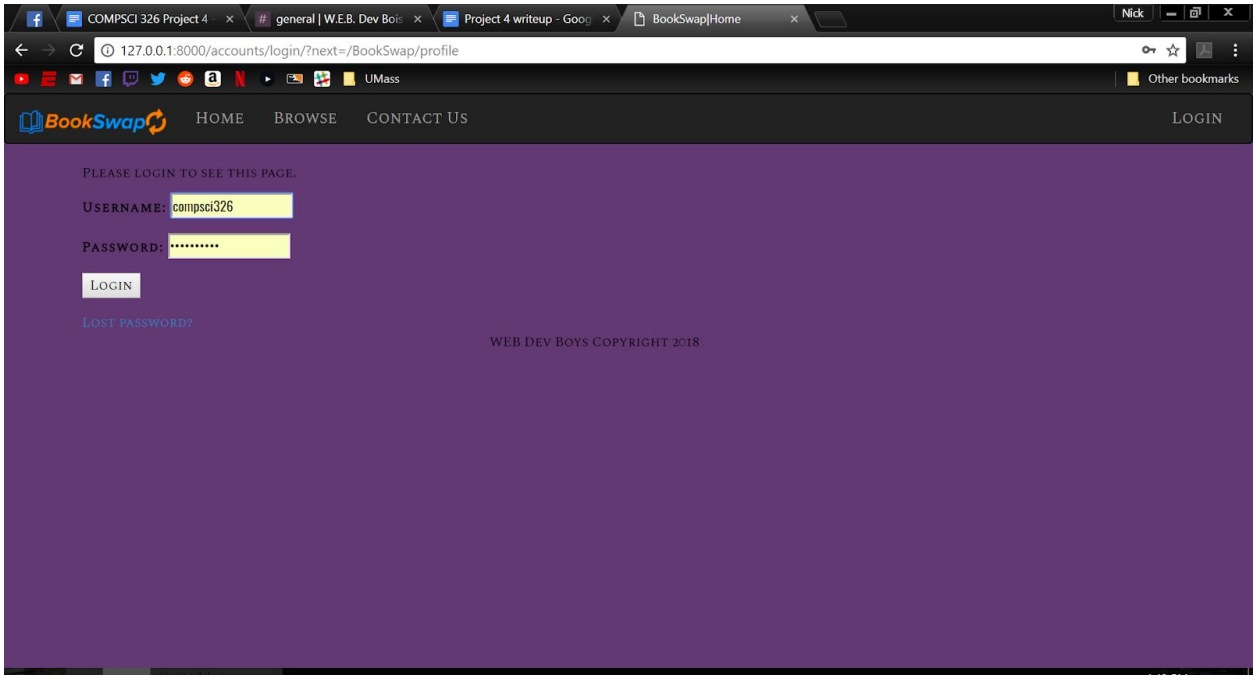
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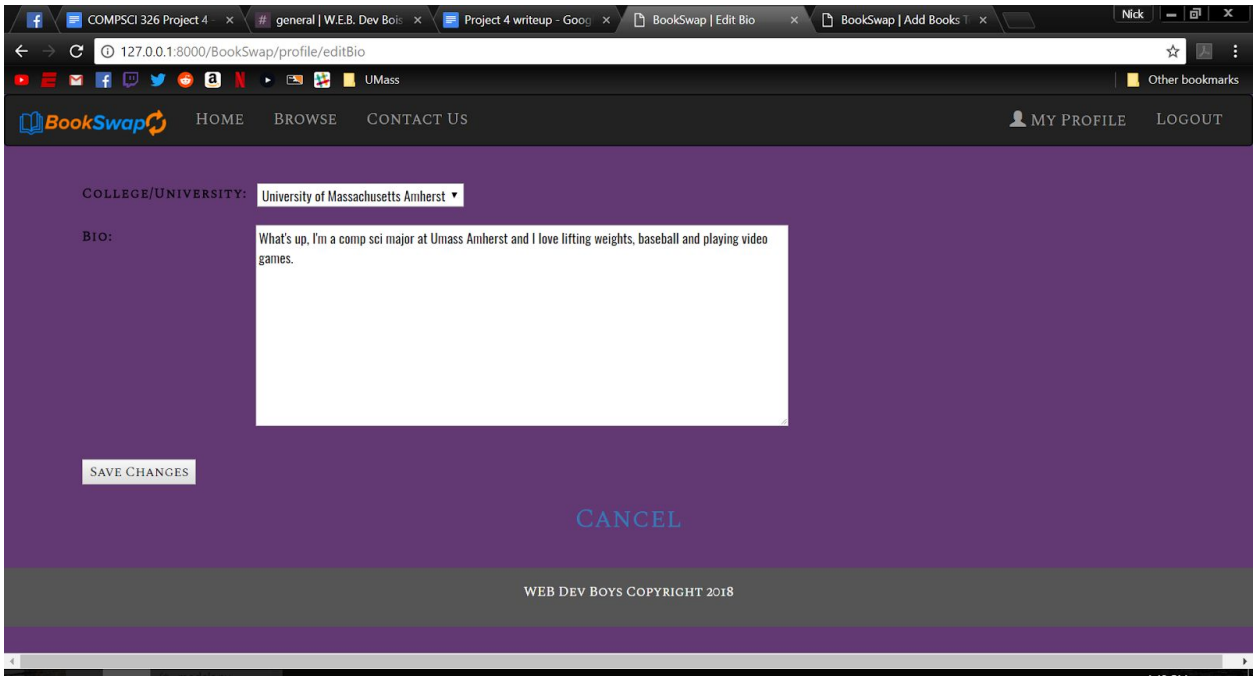
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COLLEGE/UNIVERSITY:
University of Massachusetts Amherst
BIO:
What's up, I'm a comp sci major at Umass Amherst and I love lifting weights, baseball and playing video games.
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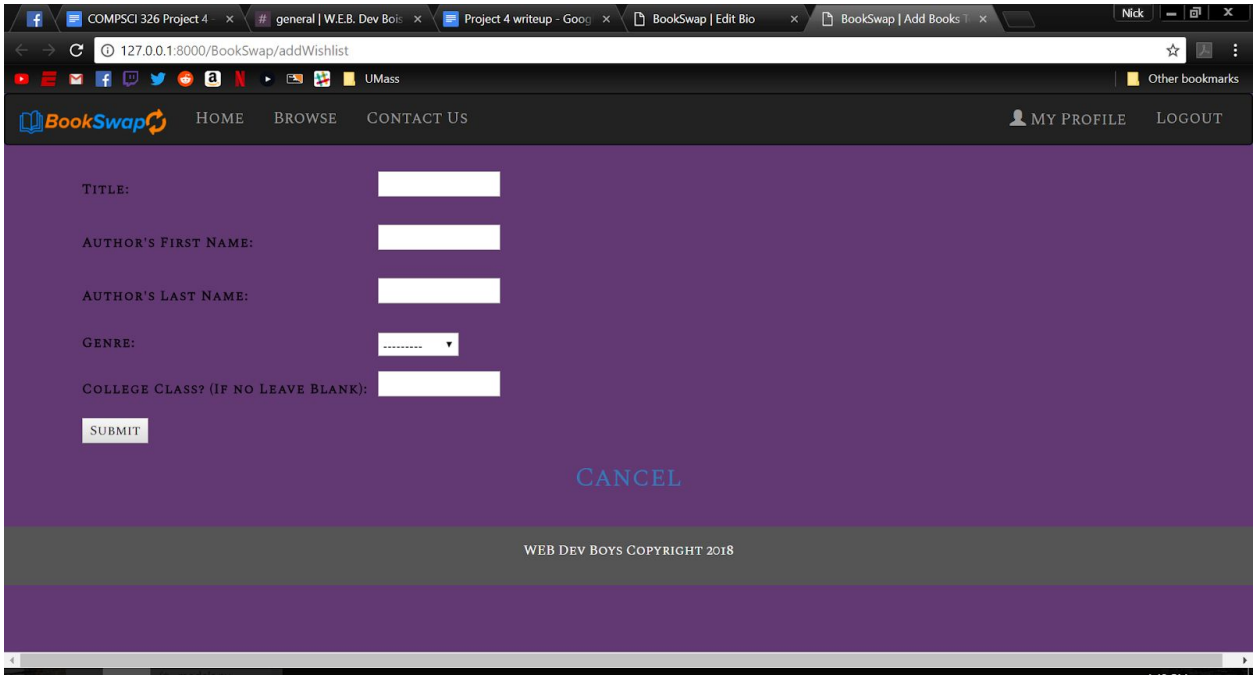
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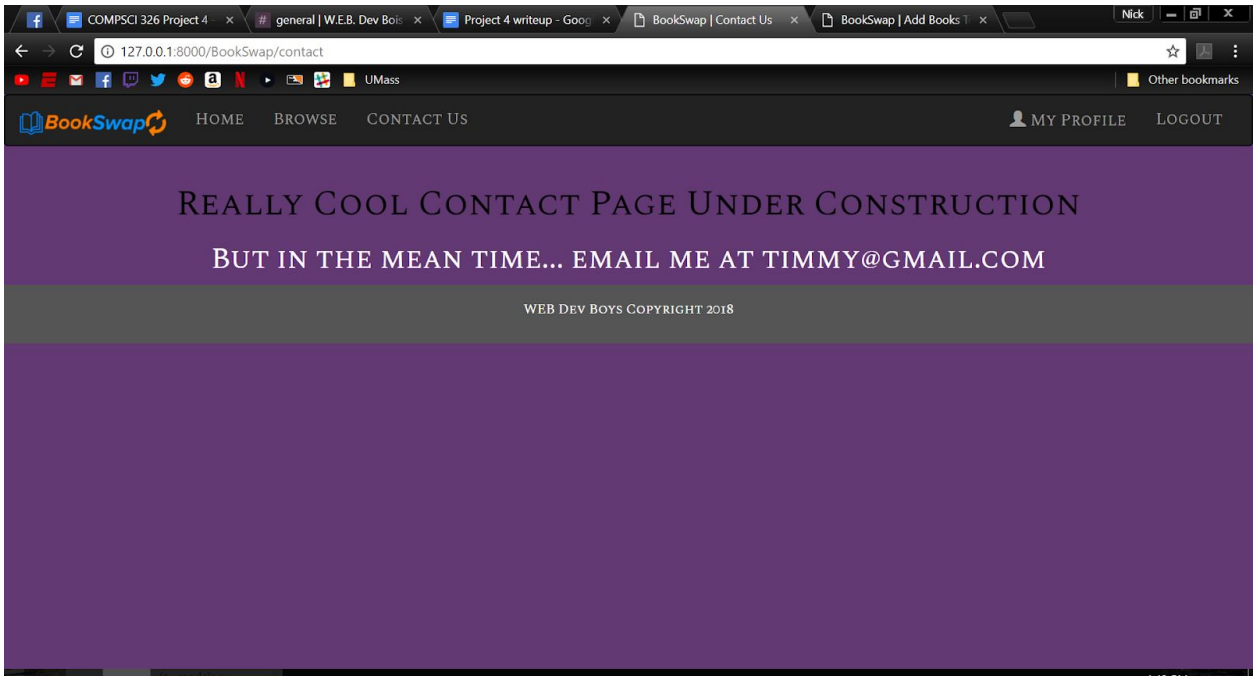
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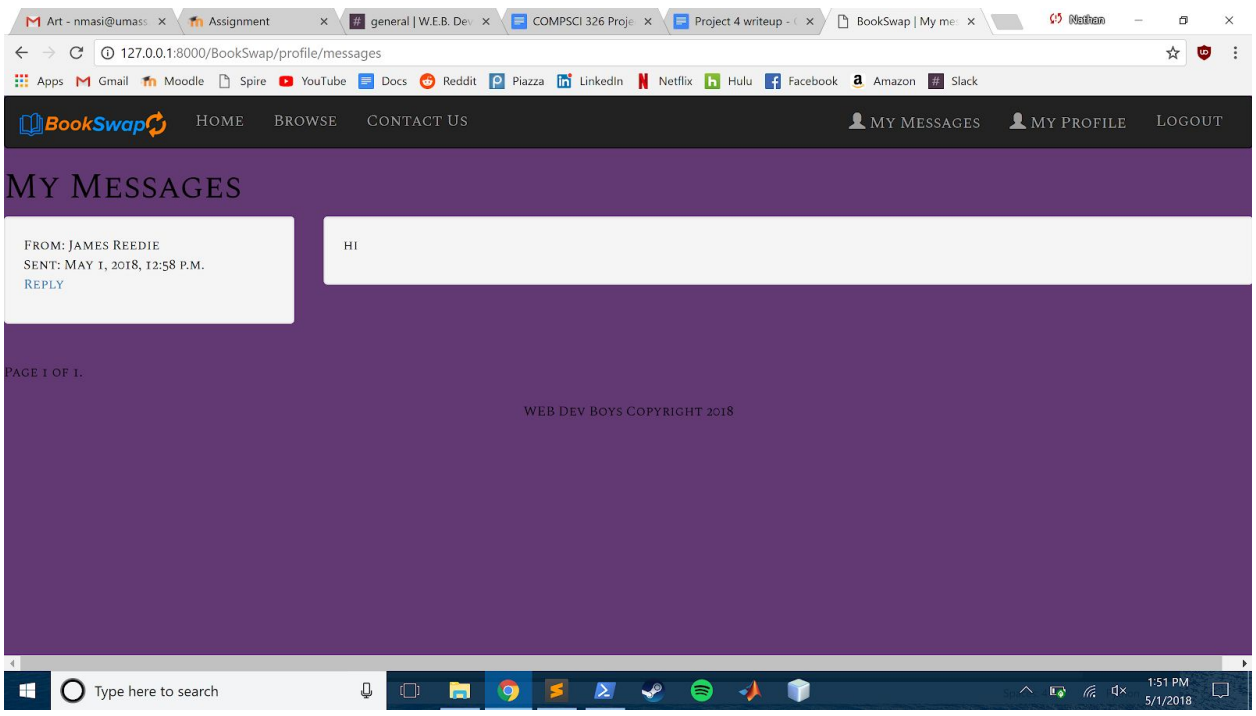
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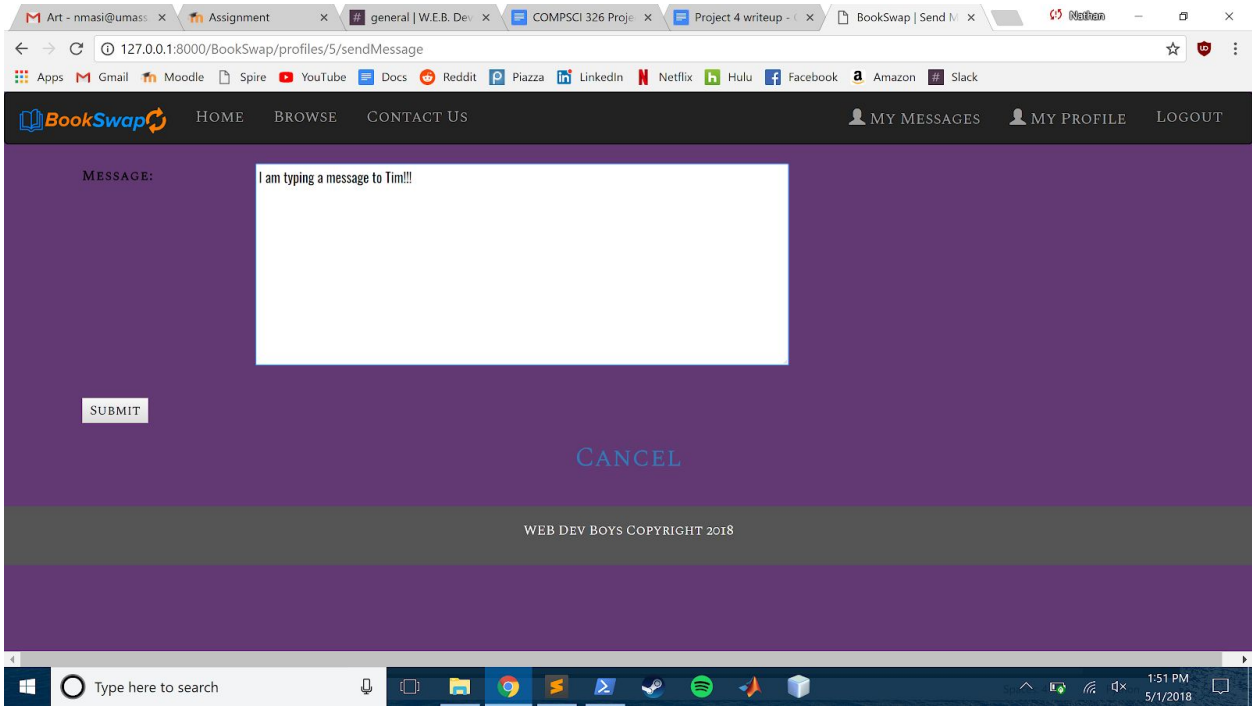
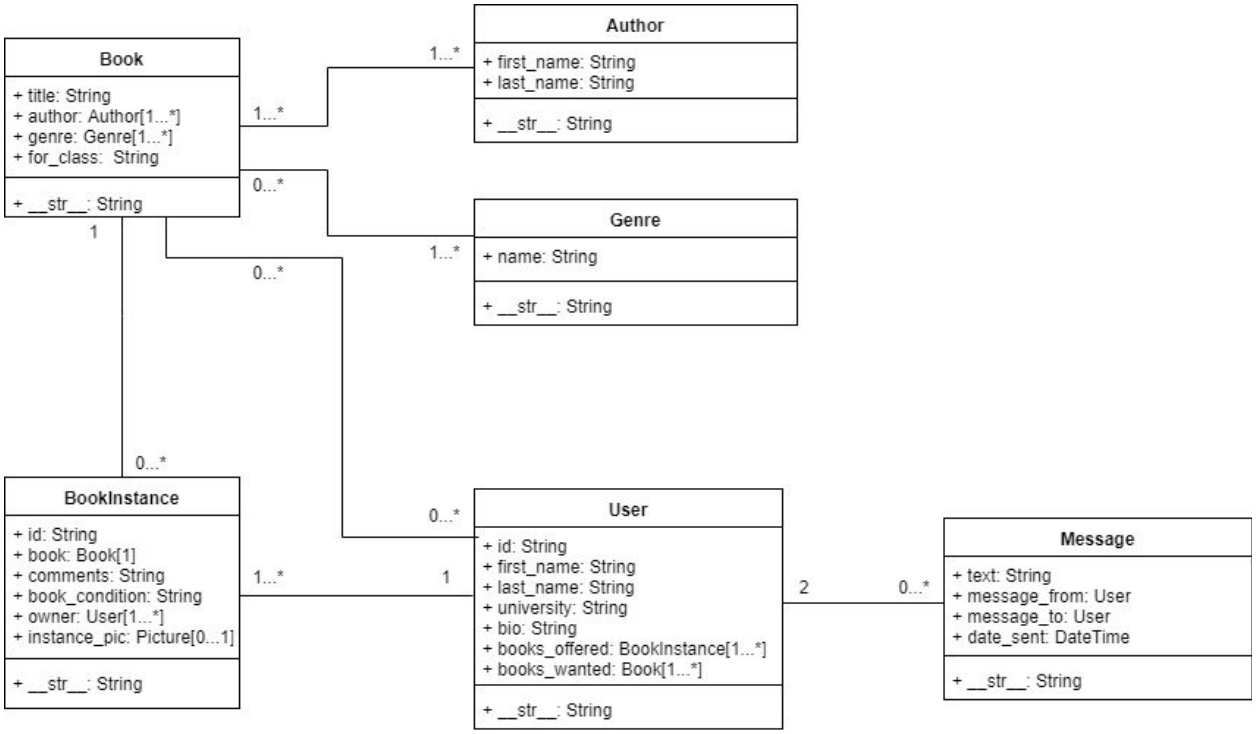


Data Model: A final up-to-date diagram of your data model including a brief description of each of the entities in your model and their relationships.



Book: Represents a book title that exists in the real world, which can potentially have multiple authors, multiple genres, and has multiple instances. It is also connected to User because users can specify certain books that they want.

BookInstance: Represents an instance of a book in the real world. For example, if I owned a copy of Green Eggs and Ham, this could be represented by a BookInstance. Each BookInstance has a user, the person who owns that copyof the book, and a Book, which gives information about the book itself in comparison to just that particular instance of the book.

Author: Represents an Author, and each author can have multiple books.

Genre: Represents a genre, and each genre can have multiple books.

User: These are Users of our application, and they can have multiple BookInstances that they own, and multiple Books that they want to own. Along with this, they also have messages that they have sent and received.

Message: Messages are messages between users of our application. Messages have 2 Users, one being the User who sent the message, and the other being the User who received the message.

Authentication/Authorization: Users are authenticated in our webpage through our login page. As of right now we have 6 users authenticated (including our admin login). All of our non admin users are members of the 'user group' group, which gives them the permissions of add author, add book, add book instance, add genre, and change profile. Also, the add book and my profile pages of our application are not accessible if a user is not logged in and authenticated. This means that any things on the my profile pages (edit bio, add to wishlist, etc) are also not accessible to a non authenticated user. If no user is signed in, only a button linking to the login page will be visible in the upper right corner of the nav bar. If a user is signed in and authenticated, the top right of the nav bar will have buttons to the logout page and to the user's profile.

Team Choice: Since our application is centered around students being able to connect with one another in order to swap their books, we decided that our team choice component would be to add a messaging functionality by which users could communicate and negotiate their swaps. Additionally we added image file handling, because it was important to allow users to show the condition of their books that they were offering. As a result, we added a new Message data model, along with new views for the user to see messages received by others. For the image handling, we added attributes to the bookinstance model so each instance would have an image associated with it, and made modifications to the add book form so that users could upload their file images with their books.

Conclusion: Overall, we worked quite well as a team on this project. Everybody pulled their own weight in terms of the amount of work done, and we were all willing to help others if they were having trouble with some things. Through the design and

implementation process we learned that there is a lot of work that goes into building a web application, but frameworks such as django do make it easier to work through. Making UIs was fairly easy, but we definitely did have some difficulties for the project 2 submission. Making models, creating views, and getting data from our database to be displayed on our pages was not easy, and things were made worse due to (for many of us) our inexperience with git. We encountered several issues on github due to pushing things that did not need to be pushed like pycaches and database files, which led to several conflicts regarding overwrites. We would have liked to have a better grasp on git, and it probably would have been useful if we had a better understanding of how much work project 2 would entail than project 1 did, as we spent longer working on it than we initially thought.