Team Deluxe Tardigrades: Yifan Wang (PM), Amber Chen, Elizabeth Doss, Mandy Zheng
Period: 1
Assignment: P05 - Fin
Due Date: 06/11/2020

Title: Locker Swapper

Individual Responsibilities
Yifan Wang (PM):

- Stats and d3 graph and chart rendering
- User profile and home page
- Locker and Profile Survey

Amber Chen (Frontend):

- Styling all pages
- Sign-in/Login pages and invalid login handling
- Updating edited information

Elizabeth Doss (Backend):

- Locker market status and keeping track of requests
- Notification system
- Creating the Locker Buddy filter system

Amanda Zheng (Backend):

- Responsible for facilitating information passage from databases
- Implementing the Locker search filter system
- Locker Buddy System

Summary

With many students unsatisfied with their assigned lockers, Stuyvesant has had a problem with “illegal” locker trading. Using our website, students will be able to legally trade lockers over one all-encompassing platform. Our platform will require students to fill out a survey of the type of locker they have when registering and some personal info for their profile. After making an account, they can put their locker in the market and look for lockers that they want. Once they find someone willing to swap lockers, the locker info on their profile page will swap and they will get each other’s lockers. Our website also provides a way for people to find locker buddies. The user must input some basic info about themselves and their preference if they want to find a locker buddy with a locker (or put up their own locker as one to share with someone else). The buddy system has a thorough survey format to find the exact locker the user needs. To find the locker that the user desires, we have provided an easy-to-use filter system to narrow down the search for the perfect locker. We will notify the other trader/buddy-to-be of your request and

once the request for a trade or buddy is accepted or rejected, there will be a notification. We also provided some basic graphs and stats that give an overview of the locker market.

Project Timeline
*strikethrough == complete

Minimum Viable Product:

- User Profile with locker and basic info
- Status of Lockers (Sold, On Market)
- Locker Trade

Ideal Product:

- Search for Locker Buddy (add compatibility using info survey)
- Filter system for floors, top or bottom locker, nearest to certain area, price
- Notification of people who want to buy
- More complex user and locker info

Extra Features:

- Statistics graph about sales, average price per floor, highest price, best prices, etc . . .
- Dot plot of all sales

Front-end
Users will be led to the sign in page upon visiting our site where they can either sign in or create an account. When creating a new account, they will be asked to fill out a questionnaire about themselves and their locker. After signing in, the homepage will display basic information, including user osis, owned locker(s) information, and information about locker transactions and pending buddy requests. On the top of the page is a navbar with four tabs: home, locker search, locker buddy, and stats. Under locker search, the user will be able to look for a specific locker by searching for the locker number or get a pool of potential lockers by applying specific filters. They can click the “Trade” button to send a request to the owner of the lockers that they are interested in. Similarly for buddy search, they will be able to look for specific people using their osis or apply a set of filters to find the best matches. The users will need to fill out a survey about their locker usage and habits before requesting a buddy. To send a request, the user can simply click the “Buddy” button. The user can also delete a request for both a locker or a buddy whenever they want. Finally, under the stat tab, the user can see graphs about some useful numerical data, such as trades per floor and the most requested lockers. Users can change their own data at any time.

Back-end
We will be using a flask app to host our site. We will use an sqlite database to house information in a user and locker table in one database (see database layout). In our extra features, we will use d3 and javascript to create visual representations of sales with a dot plot and other locker information. We will mainly be using three databases. One database is used to facilitate requests between users, one database for storing all the users, and one database for the locker information.

Frontend Framework: Bootstrap
We chose Bootstrap over Foundation as our frontend framework because we like the appearance of the aesthetics more. It has more variability in its designs, giving us more freedom to customize our project. We also have more experience with Bootstrap, so we are more comfortable utilizing it.

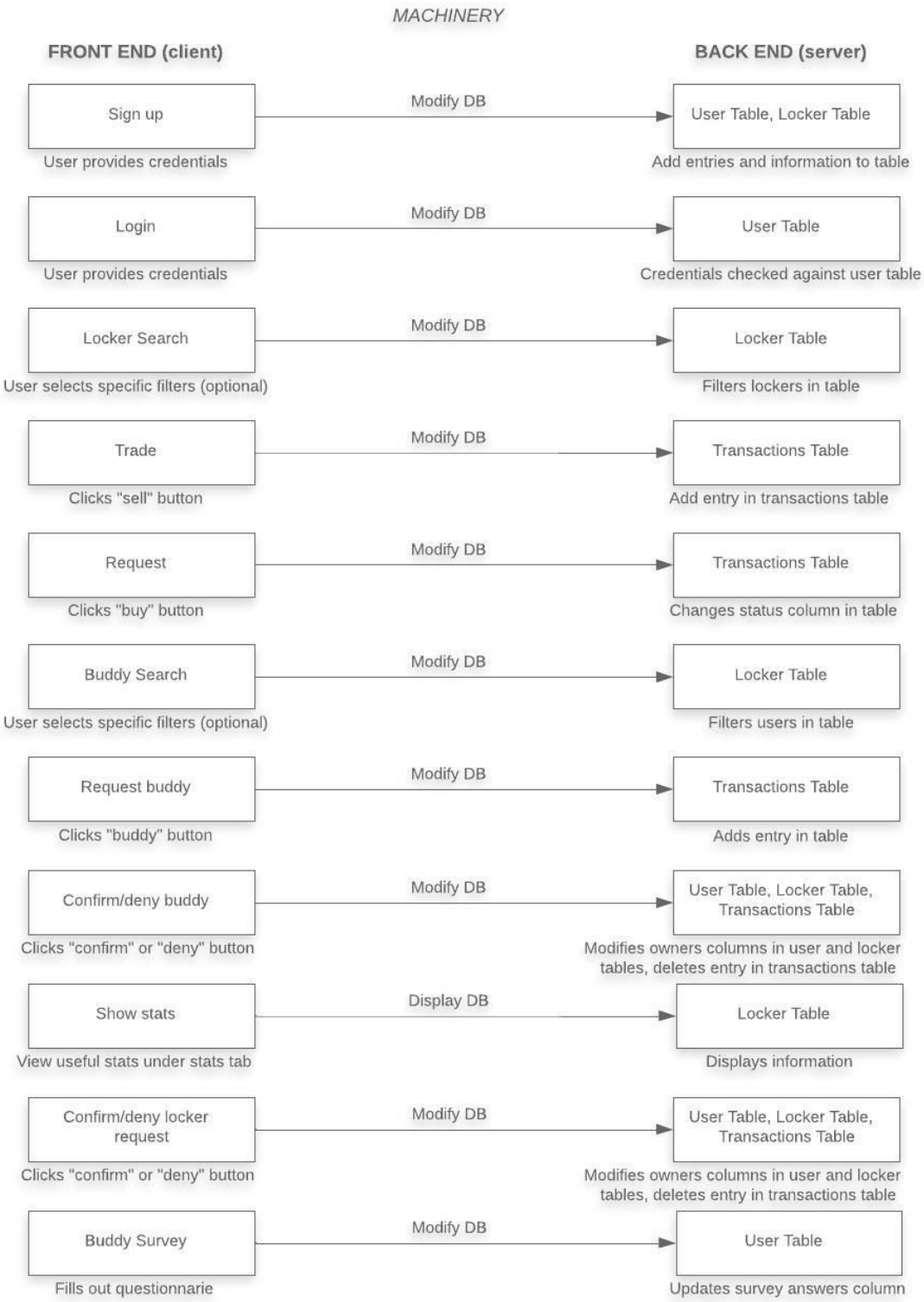
Database Layout

Table	**Contents**
user	Osis [INT], password [TEXT], grade [INT], buddy osis [INT], Survey Answer [TEXT], locker number [INT], gender [INT]***
locker	Owner(s) Osis [INT ARRAY], locker number [INT], top/bottom [INT], floor [INT], location [TEXT], combo [INT], status [TEXT]
transactions	Locker number [INT], price [INT], status [TEXT], request [INT]

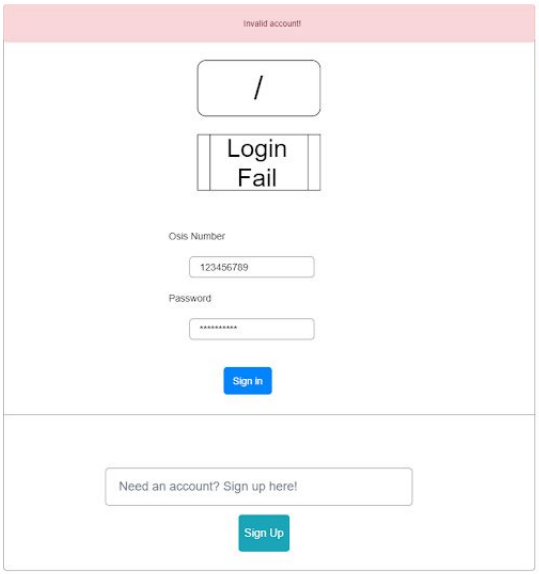
*** Survey Answer includes a list of answers to following questions:

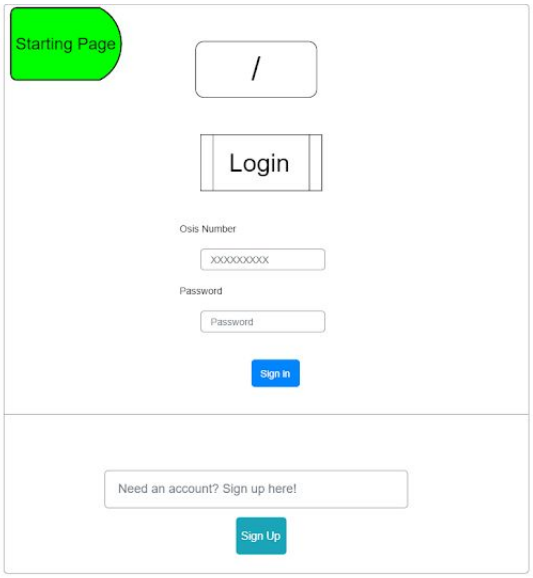
- Preferred Gender
- Preferred floor of locker
- Preferred top/bottom locker
- Preferred area (gym, atrium, hallway, robotics, bar, music hallway, swim gym)
- Sports equipment/large objects?
- Textbook count?
- Osis of preferred buddy
- Miscellaneous/habits

Component Map



Site Map


Invalid account!
/
Login Fail
Osis Number
123456789
Password
Sign in
Need an account? Sign up here!
Sign Up


Starting Page
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Login
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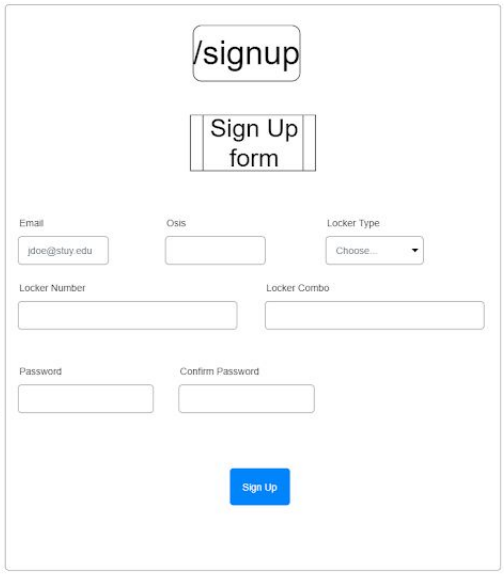
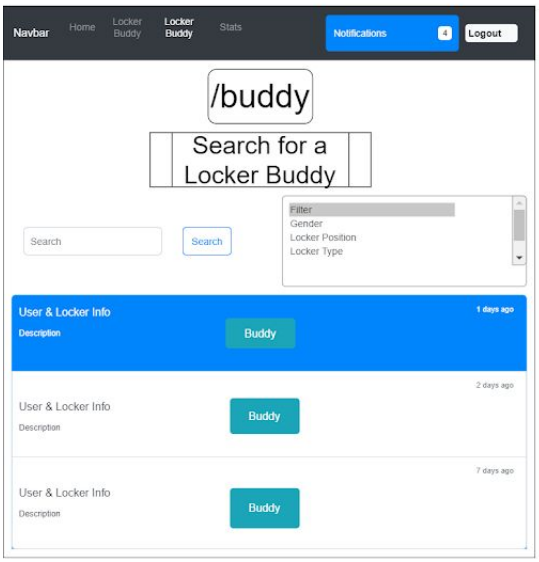
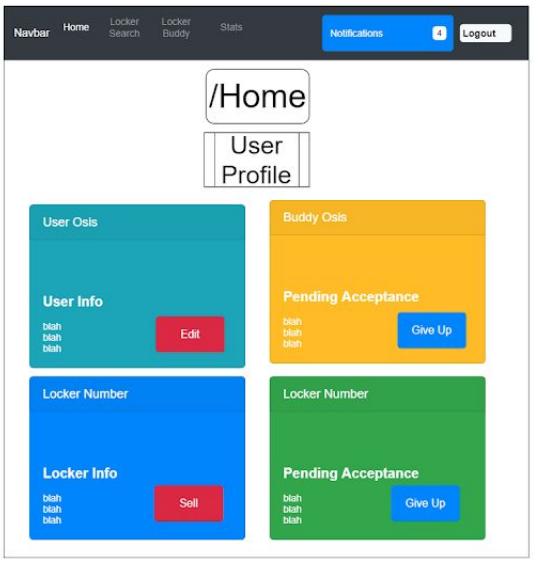
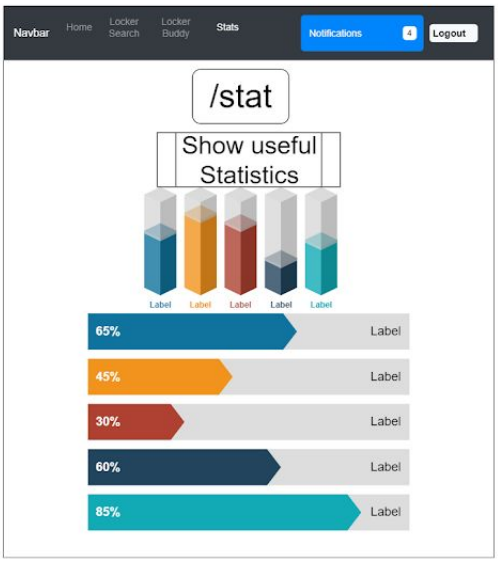
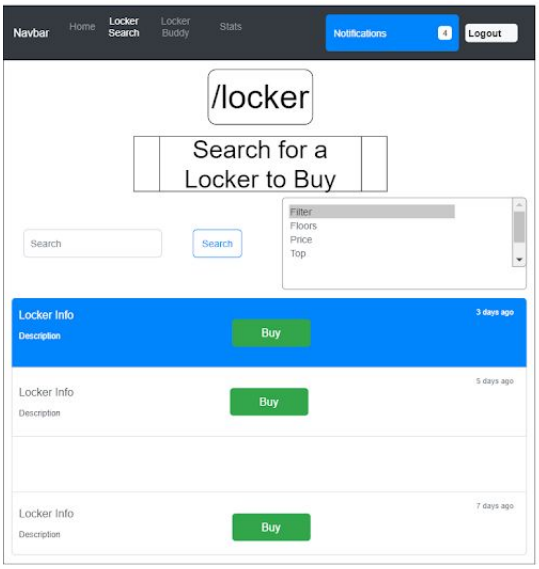
Password
Password
Sign in
Need an account? Sign up here!
Sign Up

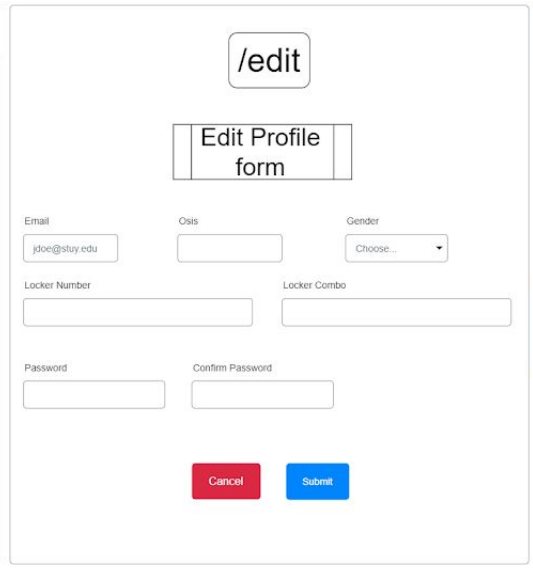

/signup
Sign Up form
Email
jdoe@stuy.edu
Osis
Locker Type
Choose...
Locker Number
Locker Combo
Password
Confirm Password
Sign Up

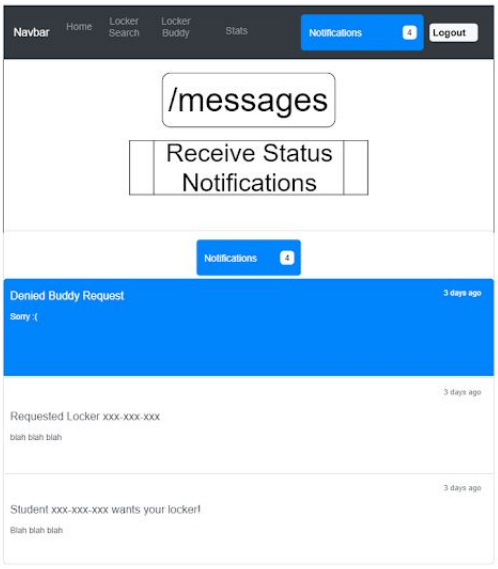

Navbar
Home
Locker Buddy
Locker Buddy
Stats
Notifications
4
Logout
/buddy
Search for a Locker Buddy
Search
Search
Filter
Gender
Locker Position
Locker Type
User & Locker Info
Description
1 days ago
Buddy
2 days ago
User & Locker Info
Description
Buddy
7 days ago
User & Locker Info
Description
Buddy

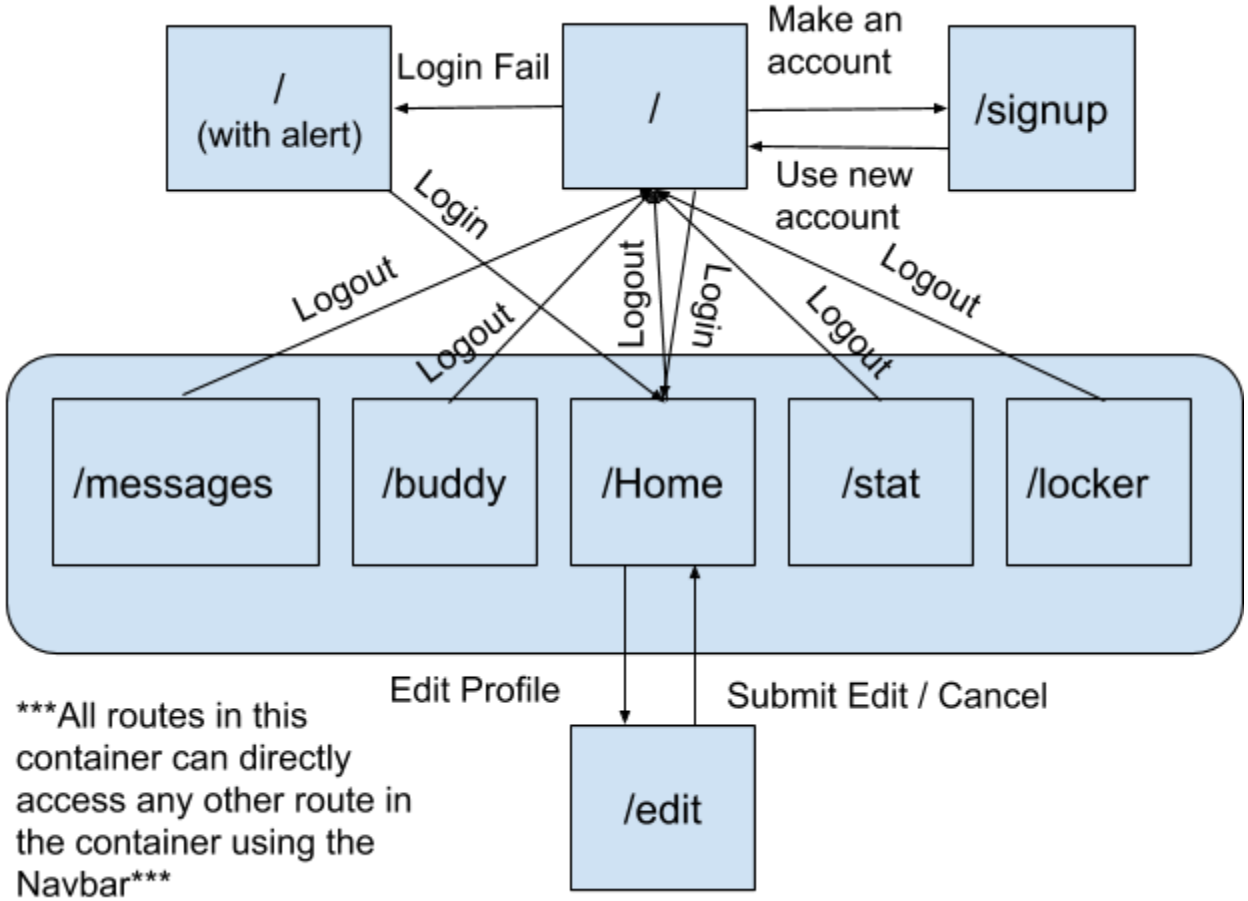

Navbar
Home
Locker Search
Locker Buddy
Stats
Notifications
4
Logout
/Home
User Profile
User Osis
User Info
blah
blah
blah
Edit
Buddy Osis
Pending Acceptance
blah
blah
blah
Give Up
Locker Number
Locker Info
blah
blah
blah
Sell
Locker Number
Pending Acceptance
blah
blah
blah
Give Up


Navbar
Home
Locker Search
Locker Buddy
Stats
Notifications
4
Logout
/stat
Show useful Statistics
Label
Label
Label
Label
Label
65%
Label
45%
Label
30%
Label
60%
Label
85%
Label


Navbar
Home
Locker Search
Locker Buddy
Stats
Notifications
4
Logout
/locker
Search for a Locker to Buy
Search
Search
Filter
Floors
Price
Top
Locker Info
Description
3 days ago
Buy
5 days ago
Locker Info
Description
Buy
Locker Info
Description
7 days ago
Buy


/edit
Edit Profile form
Email
jdoe@stuy.edu
Osis
Gender
Choose...
Locker Number
Locker Combo
Password
Confirm Password
Cancel
Submit


Navbar
Home
Locker Search
Locker Buddy
Stats
Notifications
4
Logout
/messages
Receive Status Notifications
Notifications
4
Denied Buddy Request
3 days ago
Sorry :(
3 days ago
Requested Locker xxx-xxx-xxx
blah blah blah
3 days ago
Student xxx-xxx-xxx wants your locker!
Blah blah blah


/
(with alert)
Login Fail
/
Make an
account
/signup
Use new
account
Login
Logout
Logout
Logout
Login
Logout
Logout
/messages
/buddy
/Home
/stat
/locker
Edit Profile
Submit Edit / Cancel
/edit
All routes in this container can directly access any other route in the container using the Navbar