Team Deluxe Tardigrades: Yifan Wang (PM), Amber Chen, Elizabeth Doss, Mandy Zheng
Period: 1
Assignment: P05 - Fin
Due Date: 06/16/2020

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 using Bootstrap
- Sign-in/Login pages and invalid login handling
- Updating edited information

Elizabeth Doss (Backend):

- Locker market status and keeping track of requests
- Creating/implementing the locker search/filter system
- Editing user, locker, and transaction tables

Amanda Zheng (Backend):

- Responsible for facilitating information passage from databases
- Notification system
- Creating/implementing Buddy search and filter 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 basic information 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 to trade 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 complete a survey 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 person and 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~~
- ~~Notification of people who want to buy~~
- ~~More complex user and locker info~~

Extra Features:

- ~~Statistics graph about sales, average sale per floor, most popular locker floors and locations, etc…~~
- Interactive graph

Front-end
Users will be led to the login 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, current buddy, and information about locker transactions and pending buddy requests. On the top of the page is a navbar with four tabs: locker search, locker buddy, stats, and notifications. Under locker search, the user will see the pool of all tradeable lockers in the database. They will be able to look for a specific locker by searching for the locker number or osis of its owner. There will also be a filter system to find all lockers of certain categories. They can click the “Request” button to send a request to the owners of the lockers that they are interested in. Similarly for buddy search, they will be able to look for specific people using their locker number or 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 “Request” button. The user can also delete a request for both a locker or a buddy whenever they want on their profile page. 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, locker, and transaction table in one database (see database layout). The user table will store user information, the locker table will store locker information, and the transaction table will facilitate requests between users. In our extra features, we will use d3 and javascript to create visual representations of sales with a dot plot and other locker information.

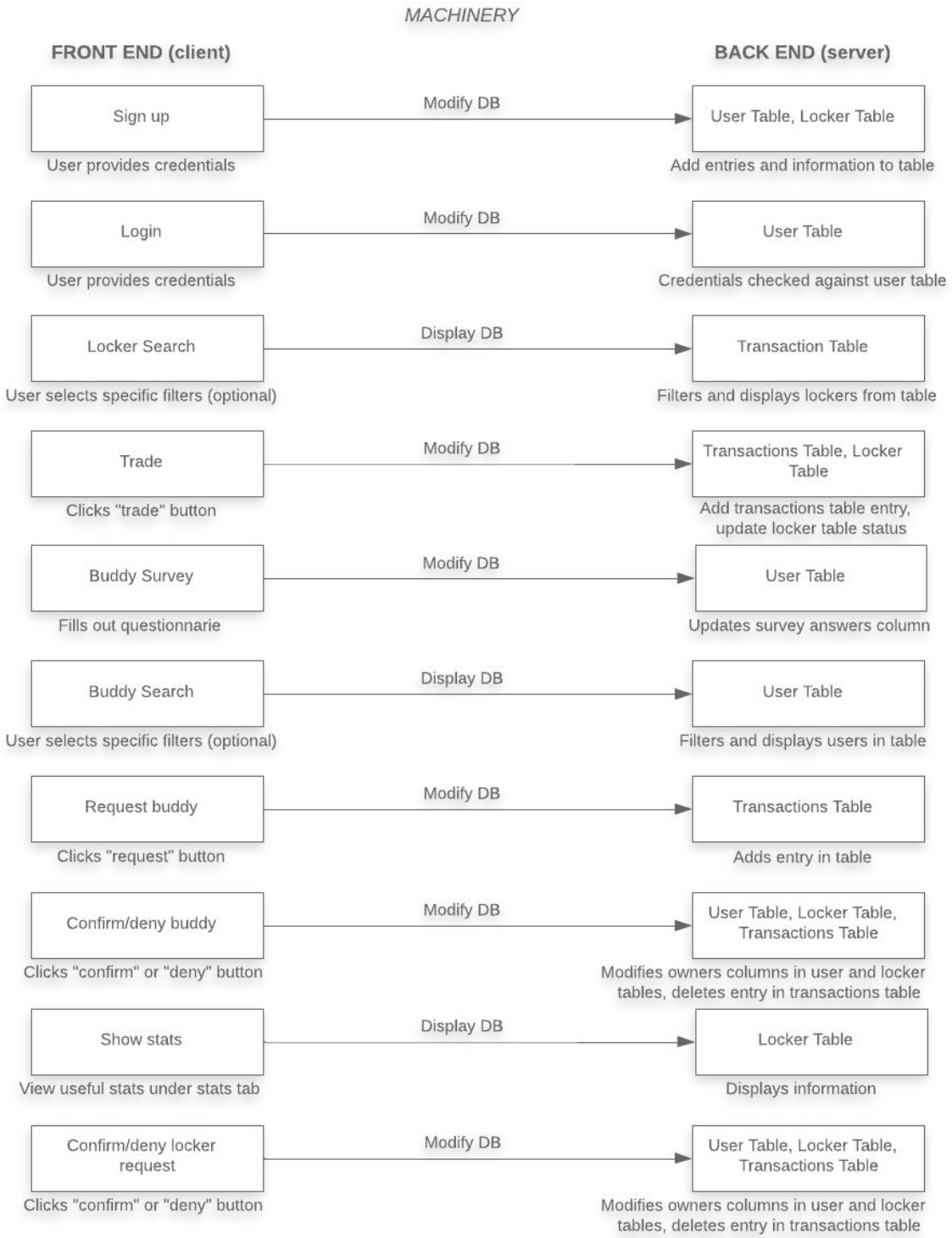
Frontend Framework: Bootstrap
We chose Bootstrap over Foundation as our frontend framework because we like the appearance of the aesthetics more. It has more variability in its designs, giving us more freedom to customize our project. We also have more experience with Bootstrap, so we are more comfortable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

Database Layout

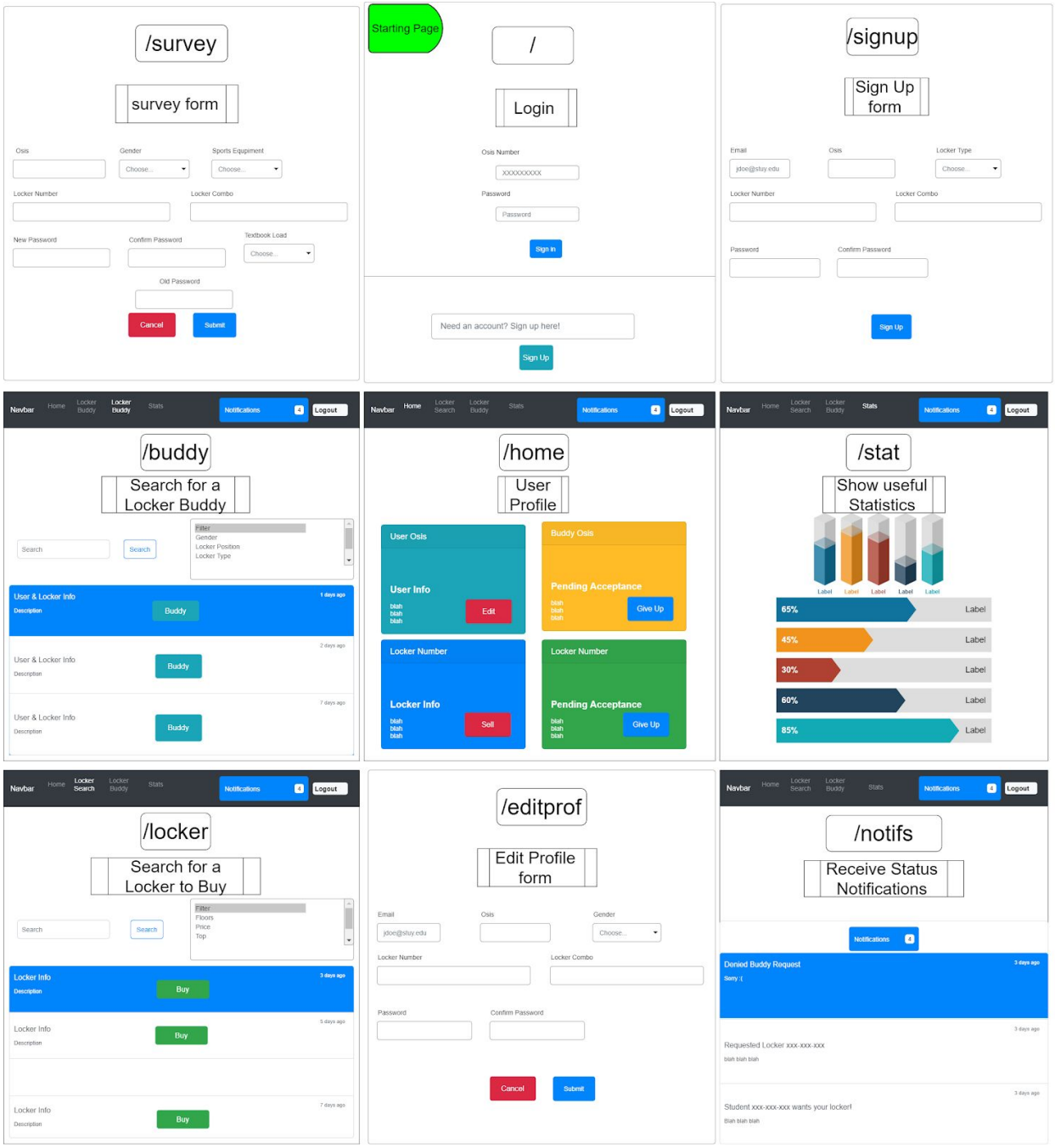
Table	**Contents**
user	Osis [INT], password [TEXT], locker number [INT], grade [INT], buddy osis [INT], Survey Answers [TEXT], gender [TEXT]***
locker	Locker number [INT], Owner Osis [TEXT], combo [TEXT], floor [INT], top/bottom [INT], location [TEXT], status [TEXT]
transactions	Locker number [INT], recipient [INT], sender[INT], status [INT], request [TEXT], floor[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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Locker Type
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Locker Combo
Password
Confirm Password
Sign Up
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Locker Search
Locker Buddy
Stats
Notifications
Logout
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Search
Filter
Gender
Locker Position
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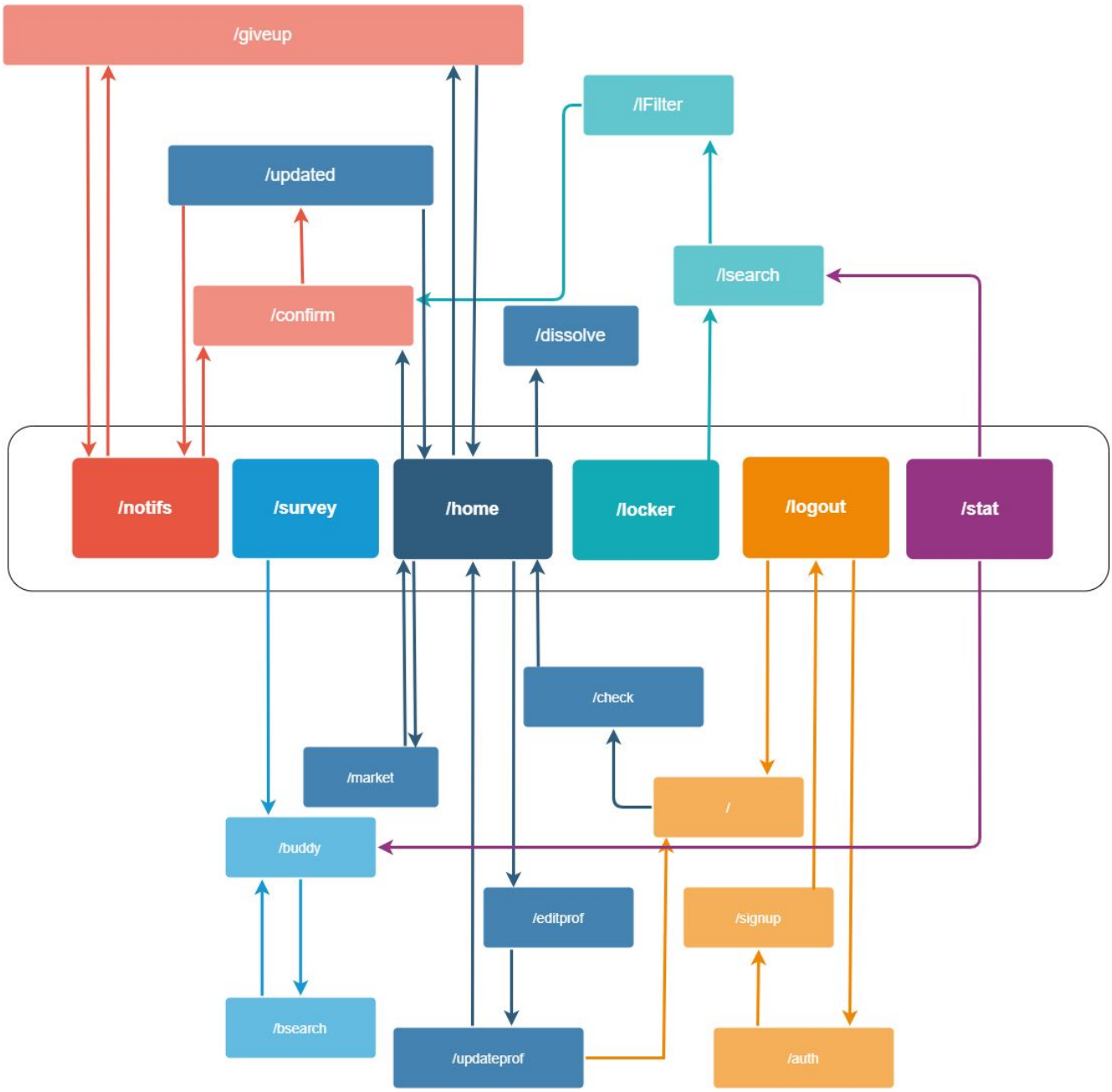
Student xxx-xxx-xxx wants your locker!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