PROJECT 2
Lockit

Pd 9 | Somewhat Useful

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WHAT DOES IT DO?

Lockit offers you an easy way to buy, sell, or trade lockers. Users are able to view lockers up for sale or trade and contact the seller using the integrated Gmail API to automatically set up an email conversation. A map and description of the location will give the user a general idea of where each locker is located.

***DISCLAIMER: WE ARE NOT RESPONSIBLE FOR ANY SCAMS. SPEAK TO OUR CUSTOMER SERVICE REPRESENTATIVE**

OUR APIs

Gmail API: Acts as login account to the website and is used to send emails on behalf of the user to the seller for further communication.

THE INTERACTIVE MAP

The interactive map is a way that users can better describe where their locker is in the school since numbers aren't descriptive. You can select your floor which will then set the map to be the correct floor plan. From here you simply click the approximate location of your locker and it will stick a big red dot at that location. Those who view your post or trade request will then see that floor plan and the big red dot.

LOCKIT LIBRARY - COMPONENTS

HTML files

See 'Files' section for details

Stylesheets

Bootstrap's as well as our own

auth.py

Handles the database, including login information and locker possession

locker.py

Manages and retrieves locker information

offer.py

Manages database for selling/trading

main.py

Flask app, handles front-end navigation and operations

quickstart.py

Handles Gmail API calls

trades.py

Manages trading of lockers

accounts table

Contains user information including user gmail OAuth token and locker ID

locker table

Contains locker ID and the location.

offers table

Contains offer information

Trades table

Contains trade information

FILES

template.html

login/logout button, profile button, and homepage button on a toolbar, footer with team info and “customer service”

home.html

Displays 4 for sale posts

Displays 4 locker trade posts

login.html

Form for username and password

Has a link to the create account page

profile.html

Displays ‘Your Lockers’

Add another locker

Delete locker

Accept or deny trade requests

edit.html

Edit information about your locker post

Offers.html

Shows locker offers in a grid layout

Search bar to search for specific locker numbers

display.html

Show information about locker

Display location with map

post.html

Form

- Select which one of your lockers to post(displays your owned lockers)
- Trading or Selling(dropdown)

Price
Floor(dropdown)
Interactive map
Description

style.css

To make the website pretty

map.js

Runs the interactive map

bootstrap.min.css and bootstrap.min.js

Incorporating Bootstrap

main.py

- **add_session(username, password)** - creates a session cookie for the current user with valid credentials or returns error message
- **logout()** - Deletes a session key of a user, if one is logged in
- **root()** - redirects to /home
- **home()** - provides functionality for the /home route
- **login()** - provides functionality for the /login route
- **signup()** - provides functionality for the /create route
- **profile()** - provides functionality for the /profile route
- **edit()**-provides functionality for the /edit route
- **offers()**-provides functionality for the /edit route
- **edit()**-provides functionality for the /edit route

quickstart.py (Gmail)

- **get_credentials()-** authorizes gmail account
- **SendMessage(sender, to, subject, msgHtml, msgPlain)**- sends email

auth.py

- **login(email, password)** - Logs user in if email and password are correct
- **encrypt_password(password)** - Returns SHA-256 version of password
- **create_account(name, email, password)** - Creates a new entry in .profiles table
- **does_email_exist(email)** - Returns true if email exists, false otherwise
- **is_valid_email(email)** - Parse email on ‘@’ and return true if index 1 is “stuy.edu”, false otherwise
- **get_name(email)**

locker.py

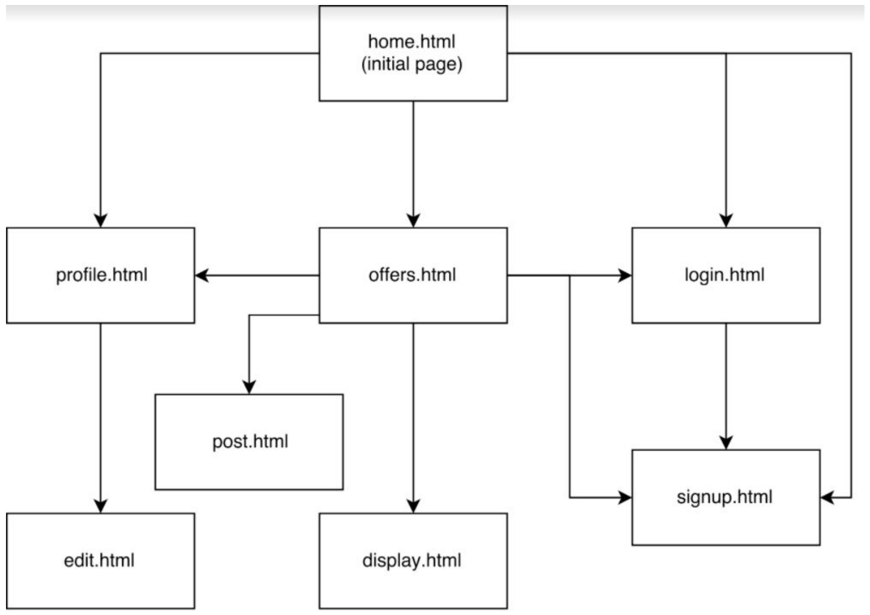
- **create_locker(lockerID, email, floor, coords)** - Add locker information to database
- **get_lockers(email)** - Return string array of lockerIDs
- **get_email(lockerID)** - Return locker’s owner’s email
- **get_floor(lockerID)** - Return locker’s floor

- **get_coords(lockerID)** - Return locker's coords
- **update_floor(lockerID, new_floor)**
- **update_coords(lockerID, new_coords)**
- **remove_locker(lockerID)** - Remove locker from locker database and user database
- **does_locker_exist(lockerID)** - Return true if locker exists in database, false otherwise
- **transfer_locker(lockerID, email (from), email (to))** - Transfer locker

offer.py

- **create_offer(lockerID, type, price, description)** - Create offer for locker based on locker information (type: sell = 0, trade = 1)
- **does_offer_exist(lockerID)** - Return true if offer exists in database, false otherwise
- **remove_offer(lockerID)** - Removes offer from offer.db
- **accept_offer(lockerID)** - Remove offer from offer.db and transfer locker to new user
- **getters**
- **setters**

SITEMAP



DATABASE SCHEMA

Accounts Table

The profile table contains 5 fields: name, email, password, and ban status. Name and password are used to log the user in. Email is a primary key so that you can't have a duplicate account. LockerIDs, is a string representation of a list of locker IDs that the user has selected as their locker. To edit the lockers list, eval(lockerList) can be used to get a working list, then the new ID can be appended, then repr(lockerList) can be used to turn it back into a list to update that field.

Name string	**Email (primary key) string**	**Password string *encrypted**	**Banned string**
watson	watson@stuy.edu	ibm135	false
sherlock	sholmes@stuy.edu	shrek	false
moriarty	moriarty@stuy.edu	p455w0rd3	true

Lockers Table

The locker table contains 4 fields: lockerID, email, floor, and coords. There is only one email/owner per locker.

LockerID (primary key) string	**Email string**	**Floor int**	**Coords string**
2-17	watson@stuy.edu	2	[512, 14]
7-160	smitty_oo@stuy.edu	7	[69, 420]

Offers Table

The offer table contains 4 fields: lockerID, type (sell/trade), price, and description. The description allows the seller to add more information to their offer if they are looking for specific requirements.
Primary key is not necessary because people will be able to only post one of each type (one sell and one trade) per locker

LockerID string	**Type int (sell = 0 trade = 1)**	**Price float**	**Description string**
2-17	0	$70	Great condition
7-160	1	$0	A second floor locker

Trades Table

The trades table contains 4 fields: the poster's lockerID, the requester's lockerID, the poster's email, and the requester's email. This allows us to associate lockers and accounts with certain trade requests. We can use this information to perform quick ownership swaps.

lockerID	your_lockerID	to_email	from_email
5-24	1-283	levi@stuy.edu	marcus@stuy.edu

TASK ASSIGNMENTS

Levi: Project Manager, HTML, api, customer service representative
Marcus: Database
James: Frontend, javascript
Ray: Bootstrap, HTML, CSS, javascript