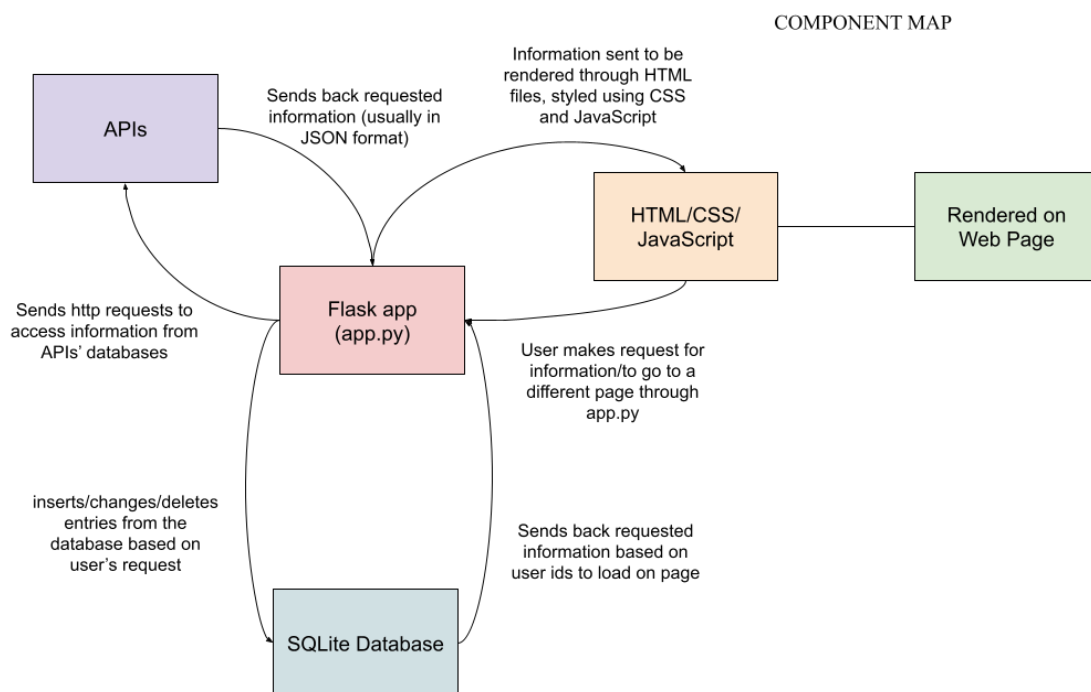Team llama (Maddy Andersen, Amelia Chin, Ari Schechter, Liam Kronman)
SoftDev — Rona Ed.
P5 — This is the End
2021-05-25

Topic: Twitter Madlibs! Uses the Twitter API to fetch real tweets. The user enters nouns, adjectives, verbs, etc. and the actual tweet data is edited with the funny replacements. It then displays the new tweets in a Twitter style feed.

Program Components and Role of Each
- **SQLite Database**: holds our data and information so we can access it to display on the site
  - keep track of users and user content
  - stores user's edited tweets
- **Flask**: the framework for our web-based app, connecting and managing the routes and functions
- **Python**: works with Flask, directs our functions and renders templates
  - Pulls information from SQLite and sends to Flask app to be displayed on page
  - We will be using the Natural Language Toolkit (NLTK) library
- **HTML/CSS/Bootstrap**: styling for our front-end pages
- **JavaScript**: allows users to manipulate/interact with the webpage in real-time
- **RESTful APIs**: retrieve data from external databases and applications, utilize function calls defined within those applications, transmits data back after receiving an http(s) request
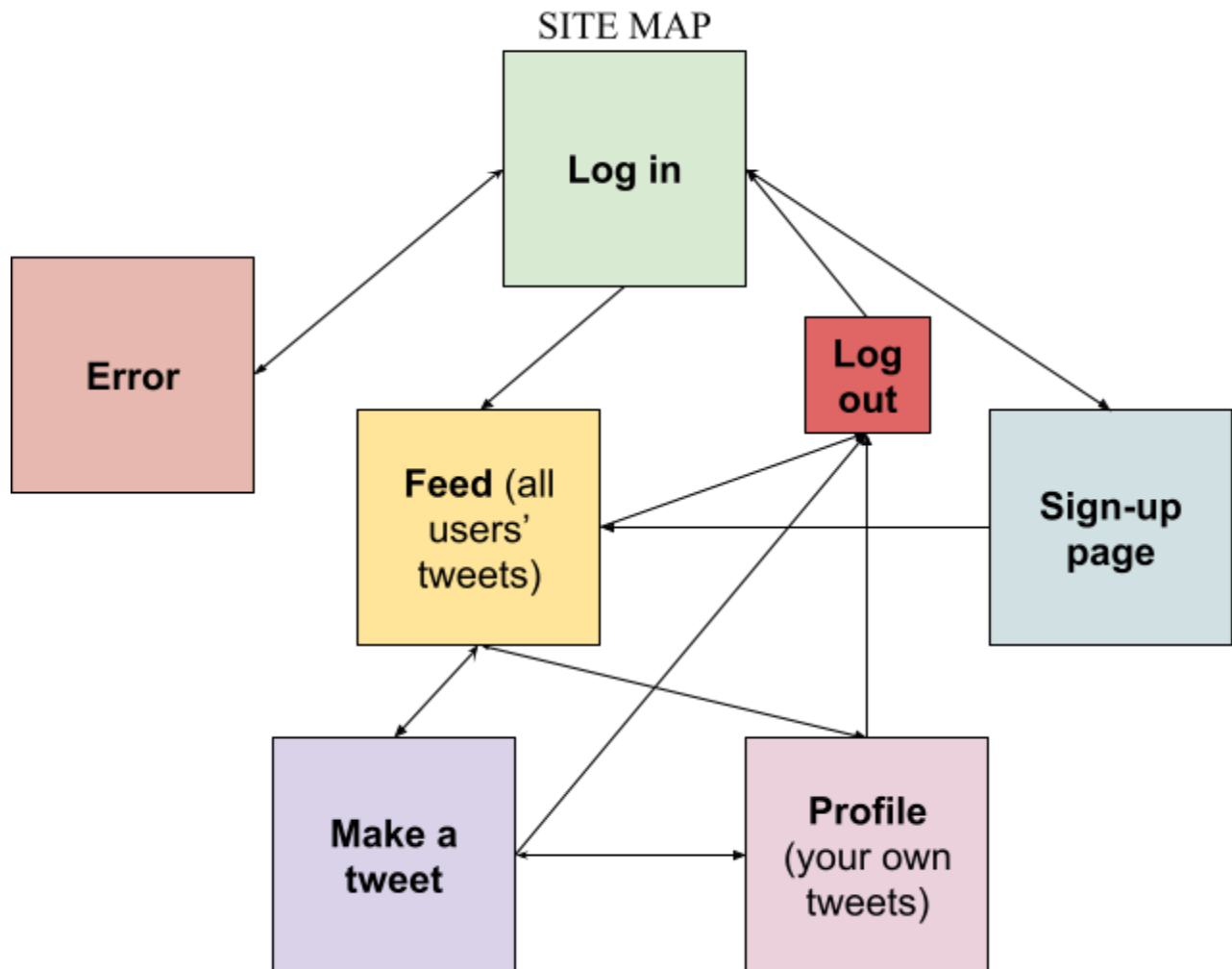 - We will be using the Twitter API

COMPONENT MAP

Database Tables

User table (users)

user_id	username	password
(integer, primary key)	(text, unique)	(text)

Tweets Table (tweets)

tweet_id	user_id	content
(integer, primary key)	(integer, foreign key)	(text)

SITE MAP

Task Breakdown
- Login/Logout/Error — **Maddy/Amelia/Ari(?)**
    - Registering users (setting up database of users and passwords)
    - Set up login page, register page, and error page
    - Check login info with SQLite table of users and passwords
    - Link login page with error page
    - Link login page with register page
    - Link login and register pages with Feed
    - Link Feed/Profile/Tweet with logout page, link logout page with login page
    - Add session to keep track of the logged in user
    - Error handling
- Feed — **Amelia**
    - Display all tweets from all users (include user and tweet)
- Make a Tweet
    - User either searches for a Twitter user to get a random tweet from or gets a random tweet from any user (Twitter API) — **Maddy**
    - Using the NLTK library, identify nouns, verbs, adjectives, adverbs, etc in the tweet — **Liam**
    - Create a form asking user for the required number of nouns, verbs, adjectives, adverbs, etc (number of words will depend on length of the tweet) — **Liam**
    - Replace words in tweet using user's input — **Liam**
    - Display modified tweet! — **Liam**
    - Store modified tweet in tweet table in database — **Liam**
- Profile — **Maddy**
    - Display username
    - Display all tweets from user
- Static Front-End! using Bootstrap, HTML, CSS — **Ari/Liam**
    - login.html
    - register.html
    - error.html
    - feed.html
    - tweet.html
    - profile.html
- If we have time....
    - Allow users to sign into their Twitter account + tweet modified tweets

Timeline
- To come! (once we know the due date)