WTH is my bus?
Project Description

Goal:

The goal of this application is to help students track delays on bus routes 1, 26, 31, 36 in real time in order to plan accordingly and make it to class on time. The user will be able to see the planned routes on a Google maps plugin, in our case the 4 routes that we see have the most issues, to see posts related to traffic, accidents, or the bus schedules on both twitter and facebook, and contribute to these feeds themselves by posting straight from the application. Using information we receive from multiple users will allow us to display the information in a helpful and useful manner to see the goal through.

Scope

Goals

- Display bus routes on Google maps
- Allow the users to see each route independently
- Show if there is a potential delay
- Show Twitter feed of related posts
- Show Facebook feed of related posts
- Add option to post to Facebook

Fallback Goals

- Add option to post to Twitter from app

Stretch Goals

- Refine query searches
- Real time bus positioning tracking
- Bus check in times
- Have separate Twitter and/or Facebook queries for different bus routes
- Have separate Twitter and/or Facebook queries traffic accidents and congestion.

The minimum aim is to at least provide the user with the necessary information to foresee a possible delay that might occur instead of showing the delays real time.

Web Services

- Facebook
  - Live updates for accidents and traffic delays
- Twitter
  - Live updates for accidents and traffic delays
- Google Maps
  - Bus route tracking and visualization

We chose Google Maps as a good way to visualize the route being taken by the buses, to make it easier to correlate information from Twitter and Facebook to the actual routes. Google maps seems to be the most popular gps service, thus letting most users already know how to navigate the plugin. We chose Facebook and Twitter because they are more text based

than some of the other currently popular social medias, such as Instagram and Snapchat, and they allow posts to be tracked by city, and sometimes even by notable landmarks. With the social media popularity amongst the student population, we saw it beneficial to use since, as users, we see a constant feed on the TAMU Transportation services. TAMU Transportation Services also has accounts with the social media sites, allowing us to have accurate and timely updates. With a more text based social media, there is greater likelihood to be posts about accidents or other delays around the College Station area.

Background Story

Thousands of A&M students rely on the campus buses to provide safe and timely transportation to classes every day. In addition, there are hundreds of bus drivers who work to ensure the students arrive in a timely manner and on time. Unfortunately it is a hard task to monitor bus routes and be aware of any changes that happen in a moments notice.

Emily is deciding whether to get a ride with her roommate, or risk the uncertainty of bus delays. Which option would be faster? She can hunt around on her A&M app, and look at different news sites, as well as ask her friends if the bus is running well today. But by the time she's done all this, her roommate is gone and she's missed the bus entirely. She catches the next bus, but she didn't leave early enough to account for an accident that delays the bus. Emily is stuck on the bus and late for her exam. What if Emily had one place to check any available information about bus delays? With Where the Hell is my Bus, Emily checks her phone quickly, looks at the bus's planned route, sees there is an accident right in her bus's path, and decides to either go with her roommate or leave extra early to make up for the delay.

Development Challenges

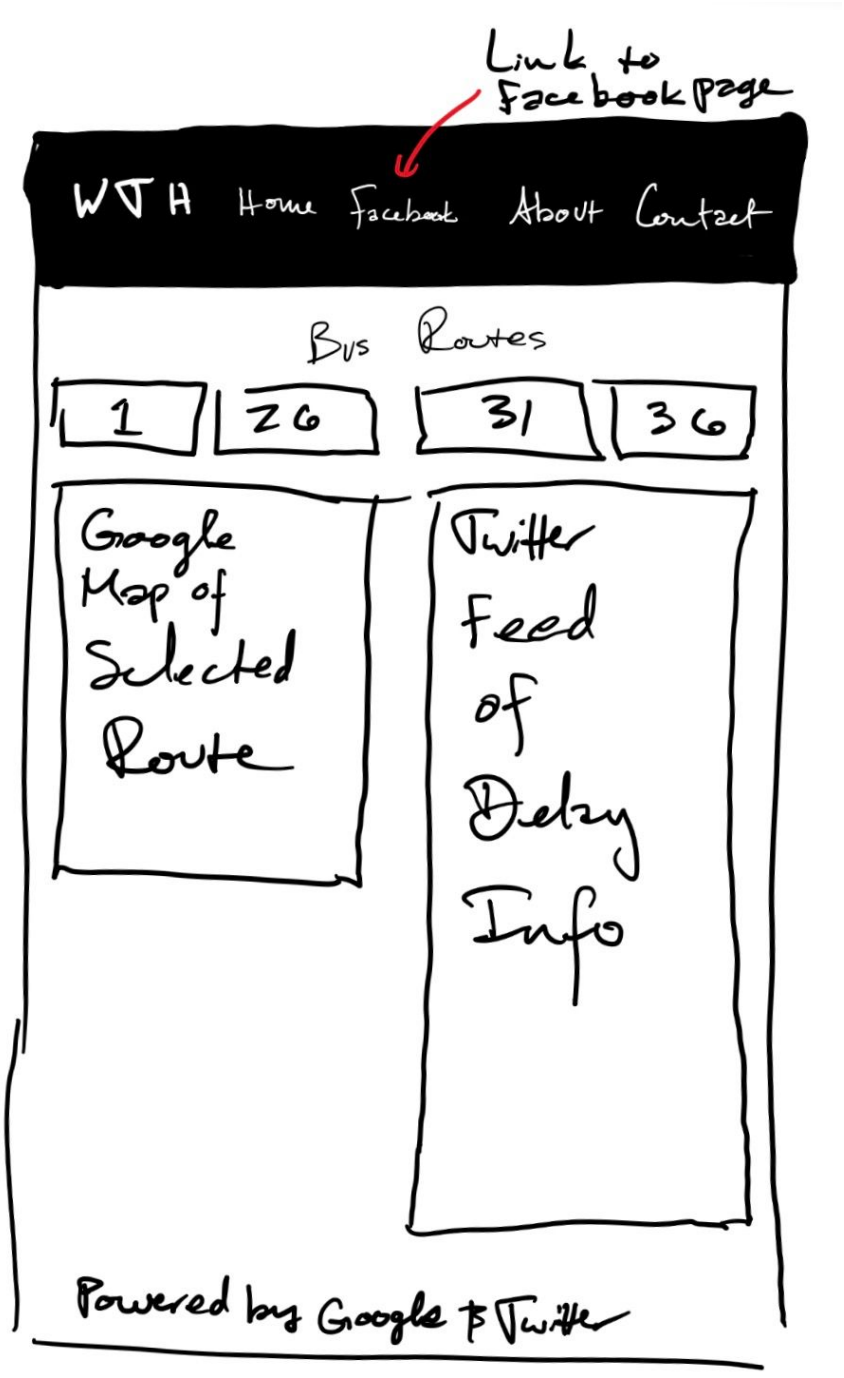
- Google maps route updating/display in real time
- Effective search techniques for accidents
- Facebook app and token implementation
    - Facebook's authorization token permissions hoops to jump through make it a challenging api to work with, as well as the weirdly structured query syntax.

Organizational Plan

- Jose
    - User Study (User and Driver survey)
    - Routes buttons
    - Proper button functionality
- Han
    - Twitter feed queries
    - Google map
    - Main page layout
- Krista
    - Facebook login, share, post, app, and queries
    - Facebook HTML screen layout

Interface sketches

Figure 1: Main Screen

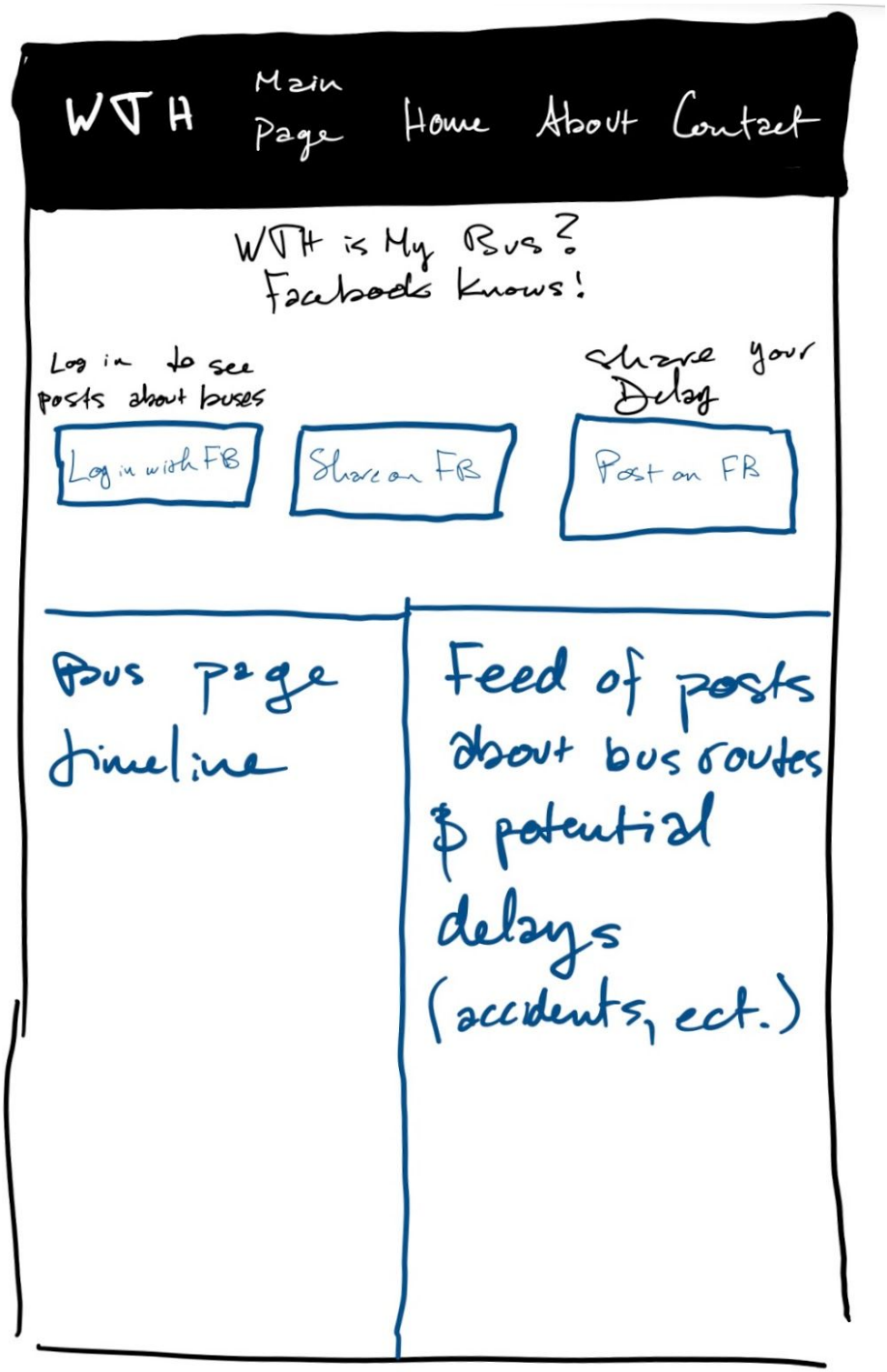


The main app page includes links to itself, the Facebook screen, and the About and Contact pages. The four buttons at the top select the route to show up in Google maps and the Twitter feed of relevant Tweets is to the right of the Google maps plugin. Color scheme is mostly black

and white, to keep the cumulative clutter from the Twitter posts colors and map colors and page as low as possible.

Current progress has placeholders for the buttons, an empty Google map, and the scrollable Twitter feed is done. Each route button is meant to display the given route and next stop arrival time.

Figure 2: Facebook Screen



Color scheme is black and white, with Facebook blue. The left timeline panel is a scrollable view of tamu bus page on Facebook, while the right panel will be results from Facebook post queries. There is a matching WTH is my Bus Facebook app, and it will handle

search queries.

The idea is the user can post to Facebook and the post will show up in the query feed, to help users track delays in real time.

Currently, the post button is not yet functioning, and the posts on the right are just placeholders until the query function is working.

A rough draft of the website can be reached at the following link:
https://github.tamu.edu/pages/hongichhan/CSCE-315-Project-3/test.html