Crow

by Isaac Halvorson

2016-12-02 — Version 1

Scope Document Objectives

The purpose of this document is to provide detailed documentation that clearly defines the work that Isaac Halvorson will perform and the deliverables of the project. Any requirement which falls outside the specifications in this document will be considered "Out of Scope" and may require reprioritization or removal of other features to implement.

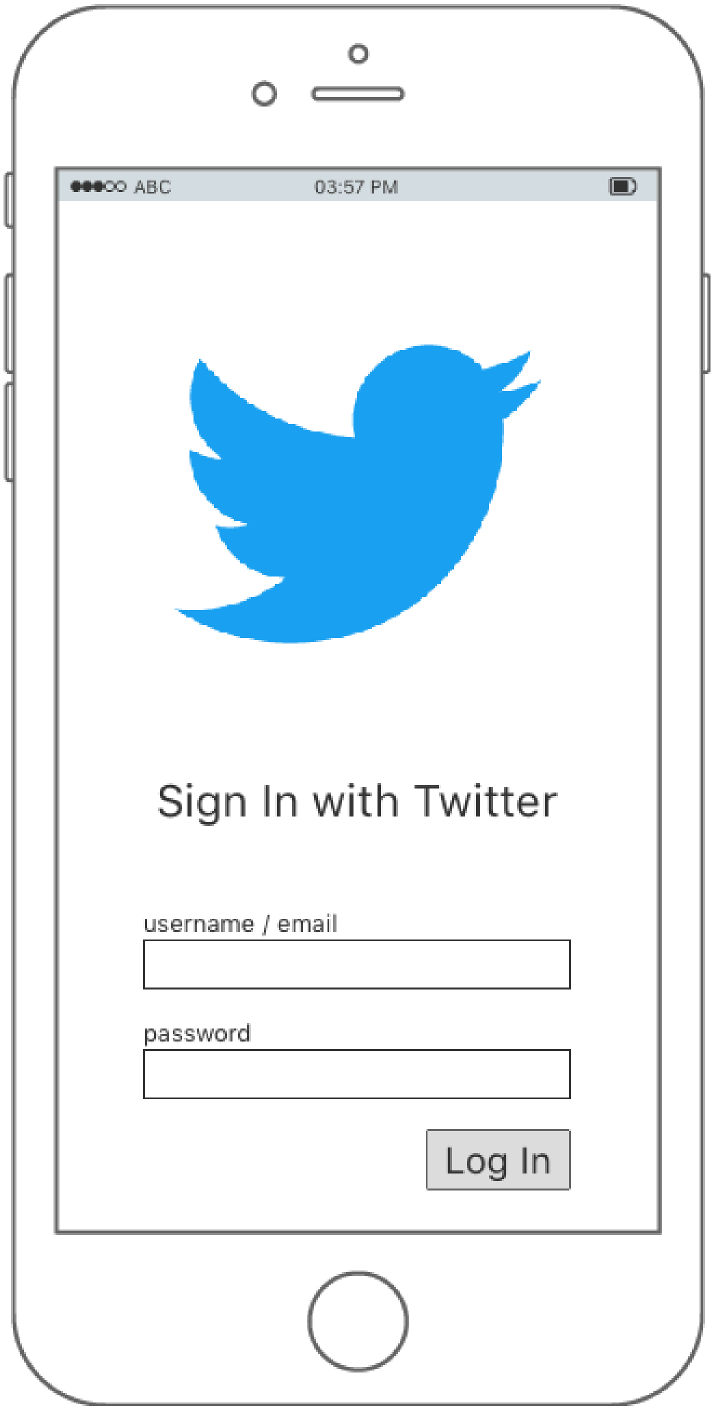
Application Overview

Twitter’s simplicity is one of its greatest assets, but being so simple, it is also easy to write things without care. Crow is a place to contemplate and craft your tweets before posting them. A user can log in using their Twitter account, create drafts of tweets to come back to later, and then post those tweets directly to Twitter from within the app.

Application Features

Crow will be targeted to the iPhone to start. It will be responsive to current iPhone display sizes using Skeleton — a CSS library. It will work on an iPad as well, but may not look very good. It will act as a “web app”, needing to be installed onto the phone via Safari’s “Add to Home Screen” option. This will allow the app to run in full-screen, simulating a native app experience.

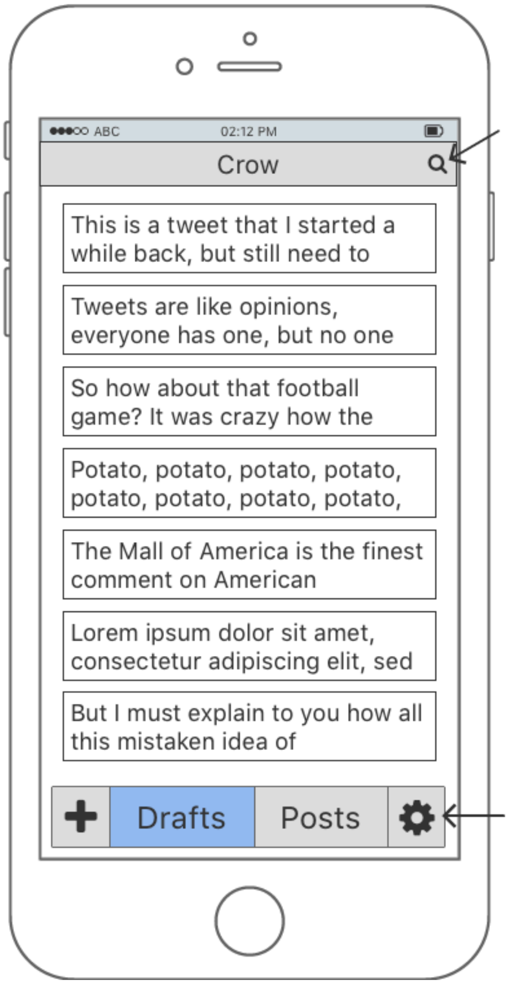
Log In / Onboarding



From the Onboarding page, the user can log into Crow using their Twitter credentials. This then links Crow to their Twitter account, allowing them to interact with Twitter from Crow.

Drafts Page

The Drafts page displays a list of tweets the user has already composed, but has not yet posted to Twitter.



This is a tweet that I started a while back, but still need to

Tweets are like opinions, everyone has one, but no one

So how about that football game? It was crazy how the

Potato, potato, potato, potato, potato, potato, potato, potato,

The Mall of America is the finest comment on American

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed

But I must explain to you how all this mistaken idea of

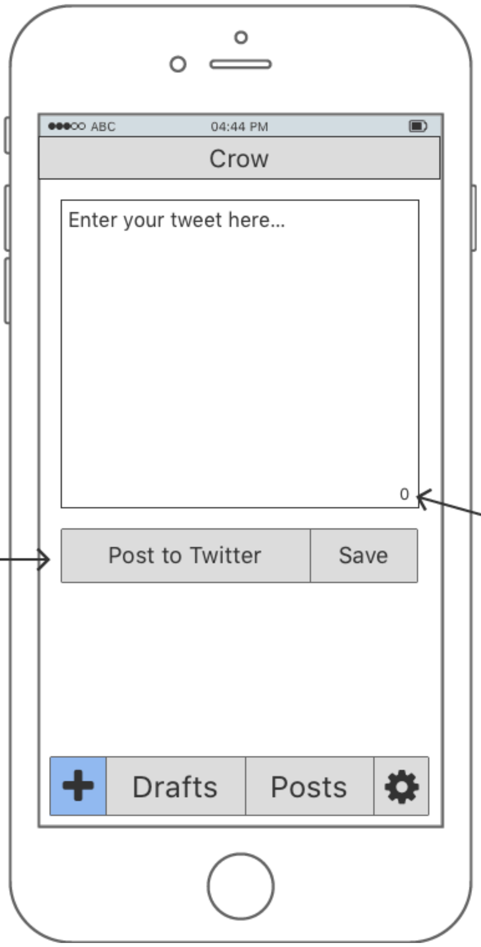
Tapping the magnifying glass brings up a search bar. Using the search from the Drafts page searches only a user's drafts, excluding all Posts from the search results.

Drafts of tweets that have not yet been posted.

A user may tap on any of the tweets to edit that draft.

In the menu bar, the user may tap the [+] button to create a new draft, or swith to the Posts or Settings pages.

New Tweet / Edit Draft Page



Text box where the user can enter their tweet

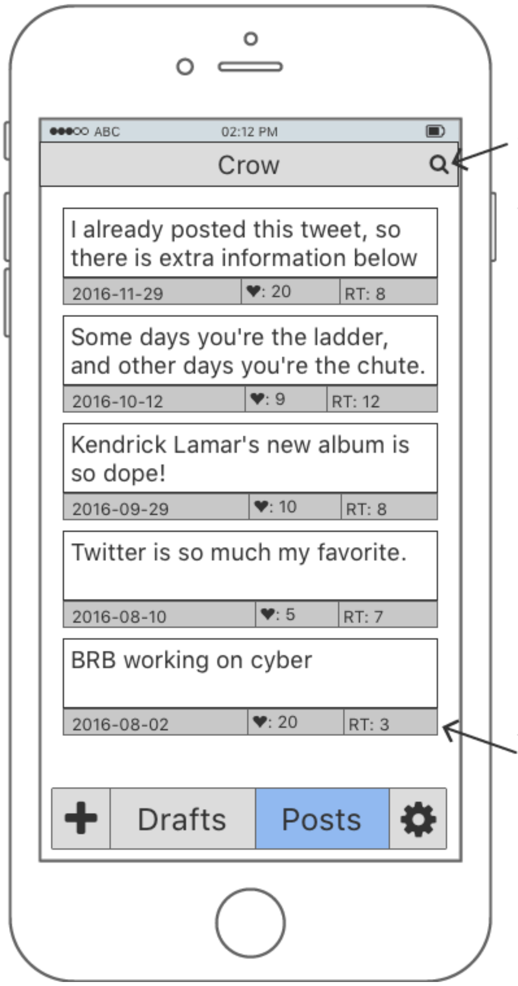
From this page, the user can post their draft to twitter, or save it for later.

The New Tweet and Edit Draft pages are the same. When creating a new tweet, the user will see the placeholder text shown here in the text box. When editing a draft, they will see the saved text that they created earlier.

This number shows the current character count of the text in the box.

Posts Page

The Posts page shows tweets that have already been posted to Twitter using Crow. It also displays stats for each individual tweet.



I already posted this tweet, so there is extra information below

2016-11-29 ♥: 20 RT: 8

Some days you're the ladder, and other days you're the chute.

2016-10-12 ♥: 9 RT: 12

Kendrick Lamar's new album is so dope!

2016-09-29 ♥: 10 RT: 8

Twitter is so much my favorite.

2016-08-10 ♥: 5 RT: 7

BRB working on cyber

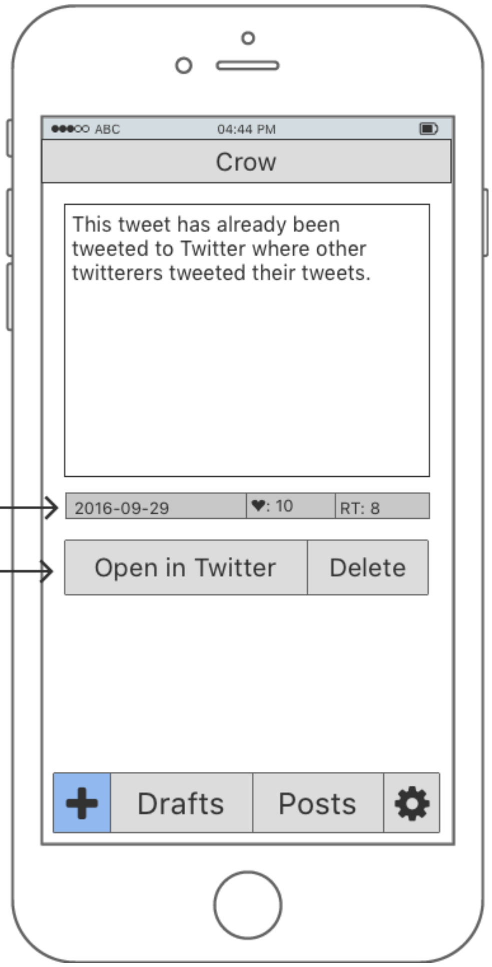
2016-08-02 ♥: 20 RT: 3

Searching from the Posts page searches just posts, and excludes Drafts from the search results.

Posts that have already been posted to Twitter

Stats for a particular tweet

View Post Page


●●●○○ ABC
04:44 PM
Crow
This tweet has already been tweeted to Twitter where other twitterers tweeted their tweets.
2016-09-29
♥: 10
RT: 8
Open in Twitter
Delete
Drafts
Posts

A text box showing the text of the already posted tweet

Statistics of the tweet

From this page, the user can open this tweet in twitter, or delete the tweet.

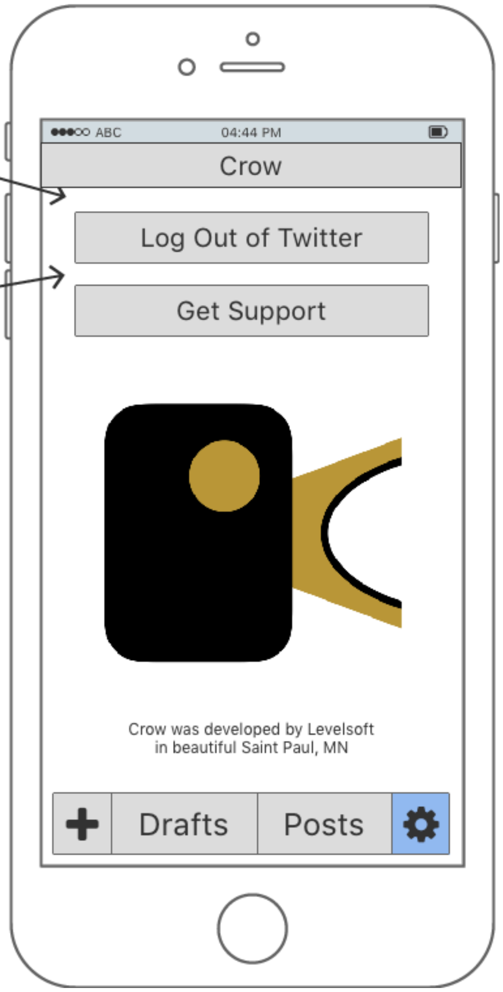
The View Post page shows information about a tweet that has already been posted using Crow. Here, the user can see the text of the tweet, the stats for the tweet, and perform interactions on the tweet.

If the user taps the "Delete" button, they will be prompted to choose to either delete the tweet from Crow, or delete the tweet from Twitter and Crow.

Settings Page

Tapping "Log Out of Twitter" logs the user out of the application.

Tapping "Get Support" will open Crow's product support web page.



Crow was developed by Levelsoft
in beautiful Saint Paul, MN

The Settings page is relatively simple at this point, but functionality could be extended as the project moves forward.

Project Milestones and Schedule

The schedule begins with building the app, and leaving the Twitter API piece for later on. This will allow me to focus on the function and structure of the app before adding the complexity of the API.

Milestone / Feature	**Estimated Completion**
Build database structure and fill with test data (one test user, and multiple test drafts)	12/06
Build static page layout, including title bar and menu bar	12/06
Build basic Onboarding page with Twitter login button	12/07
Build Settings page (mainly to have a ‘Log Out’ button to use in testing)	12/07
Connect Log In button to Firebase	12/07
Connect Log Out button to Firebase	12/07
Build New Tweet page	12/08
Enable tweeting from New Tweet page	12/09
Build Drafts layout	12/12
Display existing drafts from the database on the Drafts page	12/12
Enable Tweet page to display draft text if a draft is selected	12/12
Build Posts page, using the Drafts page as a template	12/13
Build Individual Post page, using the New Tweet page as a template	12/13
Enable Individual Post page to display post text if a post is selected	12/13
Styling and layout of app	12/14
Deploy to Heroku	12/15
Tie up loose ends and work on stretch goals	12/16–01/02

Browsers

Application will fully support browsers listed below. All browsers or versions not listed below are considered out of scope.

Browser Name	Version
Mobile Safari	10.1
Chrome for Android (Stretch Goal)	54
Safari for macOS (Stretch Goal)	10.0.1

Assumptions

While completing this estimate the following assumptions were made:

- I am able to learn to use Twitter’s API.
- Twitter’s API will not change.
- Twitter’s API allows for retrieving current statistics about a tweet (hearts and retweets).

Technologies Used

- Node.js
- Express
- Gulp (possibly)
- Sass (probably)
- Angular JS
- MongoDB
- Heroku
- Twitter API
- Fastclick - a JavaScript library for speeding up tap interactions on mobile devices
- Firebase for Twitter authentication
- Skeleton (possibly)

Database Structure

This is the planned structure for my database.

Data	**Data Type**
Username	Text
Tweet Contents	Text
Date Posted	Date
Posted Status	Boolean
Related Tweet	Text
Tweet ID	Text

Stretch Goals

Features and functionality I would like to add to the application if time allows (in no particular order):

- Allow the user to schedule the posting of a tweet at a time of their choosing.
- Shorten links using Twitter’s link shortening service.
- Allow the user to “reply” to a tweet that was posted, thereby creating a thread of tweets that relate to each other. This is the feature that would require a relational database as mentioned in the Technologies Used section.
- Allow the user to “reply” to a draft, and post any tweets in that thread at the same time. This would allow for creating a linked thread of tweets before actually posting any of them.
- Allow a user to export their drafts by emailing a copy of all drafts to a user-specified email address.
- Allow a user to delete a tweet from Twitter, but move it back into Crow’s drafts.
- When saved to the home screen, the app will be saved to the device using the “app cache feature of Mobile Safari, allowing the app to function in a limited capacity without an internet connection.
- Turn the number in text box red when it has surpassed the 140 character limit.
- Turn any text red that has surpassed Twitter's mandated 140 character limit. This will visually represent to the user when they have exceeded the allowable tweet length.
- Display a pop up of the user’s followers when the @ symbol is typed.