App Name: ThrowNote

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Abstract
ThrowNote is an app that will be designed for the everyday worker, student, or otherwise busy person who needs to capture thoughts, ideas, or articles on the fly. The app will allow for users to capture short notes for easy retrieval and review later. The app will use a hashtag system for quick and easy filtering of notes, allowing for users to define how they want to use the app, and in what workflows.

Description

Online Sync

Once a user creates a note, signing in will allow the user to sync notes to a server that will store them for sync to other devices or simply for backup in the case that the user's phone gets destroyed. Creating a ThrowNote account will be mandatory because of this case.

Attachments

Multiple kinds of media attachments can also be added to a note. The user will be allowed to add a photo to capture a thought, whether it be of a notebook, whiteboard, or a person's face to remember. The possibilities are numerous. Along with photos, audio recordings can be added to a note. Audio recordings are particularly useful for reminders, because they do not take the focus of the user off of whatever task he is performing. The time limit of an audio recording is limited, however to keep with the mindset of short form notes. Notes with media attached can also have text content as well. This is recommended, as having this text makes it easy to remember the content of a media attachment, and makes it searchable.

Bookmarks

Bookmarking is a particularly large interest for ThrowNote. The market for apps to keep a list of bookmarks to read later or to be archived for later reference is surprisingly bare. If a user stumbles upon an article or link online that may be of use later, he could simply open the app and create a new note with a hyperlink in the content of the app. To make this use case even more prominent, the app could recognize on launch if a user has a link copied to the clipboard and recommend a bookmark note be added. This is similar in functionality to a well known read-it-later app, "Pocket" (Figure 1).

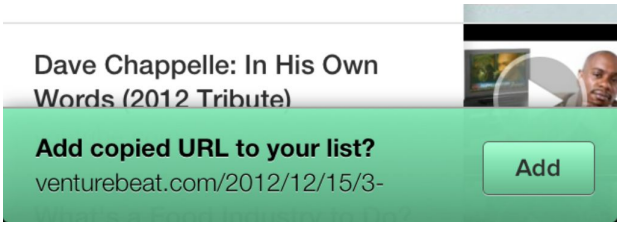


Figure 1. Pocket for iOS link recognition

Integrated Tagging

Finding notes will also be tailored specifically to the short form factor. The first way this works is in using hashtags. Similar to many social media platforms, the user will be able to tag notes with certain keywords to make them easy to search for later. The tagging will work by prefacing a keyword with a pound ("#") sign. Leaving tagging like this allows users to categorize notes however they would like. Multiple tags can be added for more specific tagging. For example, users could tag a thought about web development as simply "#Web" or more specifically, "#FrontEnd #Web", or "#FrontEnd #Web #ReactJS".

Advanced Search

Searching for these tags would be as simple as typing them into a text field, with or without the pound sign. While hashtags have priority in searching by text, the text content of a note can also be searched. These search methods are relatively simple, but can be very powerful. Searching by text is not always the best option, however. Sometimes a user may remember taking a note, but does not remember what text content it had, or it may not have had any at all. ThrowNote will also use "smart" filters that can search for notes of specific types, such as notes with images, notes with audio, bookmarks, or recently created notes.

Devices

- Android phones running Andriod SDK 15 and above.

Technical Features

- **Android Camera**: For capturing photos and videos to attach to notes.
- **Android Audio Recording**: For recording short audio notes to attach to notes.
- **PHP & MySQL**: For storing and accessing data on the server. Server usage will be for backup or sync across multiple devices
- **UserCake**: A PHP user authentication library for validating a user's login credentials in a secure manner
- **Volley**: A library published by Google for simplifying HTTP requests between the app and server.

Target Audience

This app will appeal most to busy people. Busy people are more interested in capturing small pieces of information, thoughts that otherwise might have been forgotten. Particularly interested parties might include students who are would like to archive information from classes for later use, like links to articles or reminders. People in the workforce may also like to remember business ideas or capture information presented in meetings, without needing detailed information. Another particularly strong use case would be people who are followers of news, who would like to save bookmarks to articles in a searchable way, rather than simply having a list of links, like one would find in a typical web browser.

Benefits

ThrowNote was an idea birthed out of the struggles of using feature-rich long-form note taking tools for jotting down simple ideas. Using larger note taking tools adds extra steps, interface complications, and time that simply should not be necessary for simple ideas or notes. ThrowNote will be designed to tailor to the specific use case of taking short-form notes. Notes with 256 characters or less should not be required to be in a “notebook” or a “folder” as some tools require. The user should be able to open the app and with a couple taps, be able to create a note to come back to later.

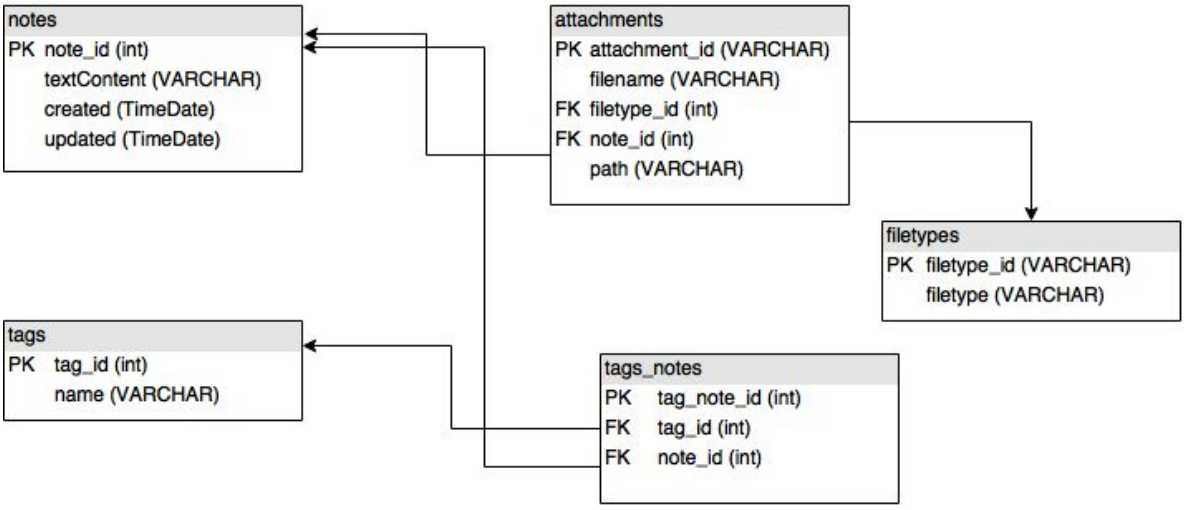
Approaching note taking like this allows for many of the extra features found in other note taking tools to be stripped away, allowing for a simple and easy to use interface. With this minimal interface, it will be easy for beginners to learn, and quick for experienced users to create new notes with whatever content they choose.

The simplicity of ThrowNote allows users to define how they want to use it, and in what context. For some, ThrowNote would work best as a simple archive service for articles or infographics found online. For others, it could be used as an effective todo list. For others, it could serve as a simple daily journal, using tagging features to indicate month and year of the journal entry. ThrowNote does not demand a certain style of organization from users, but rather it lets people work in the way that works best for them.

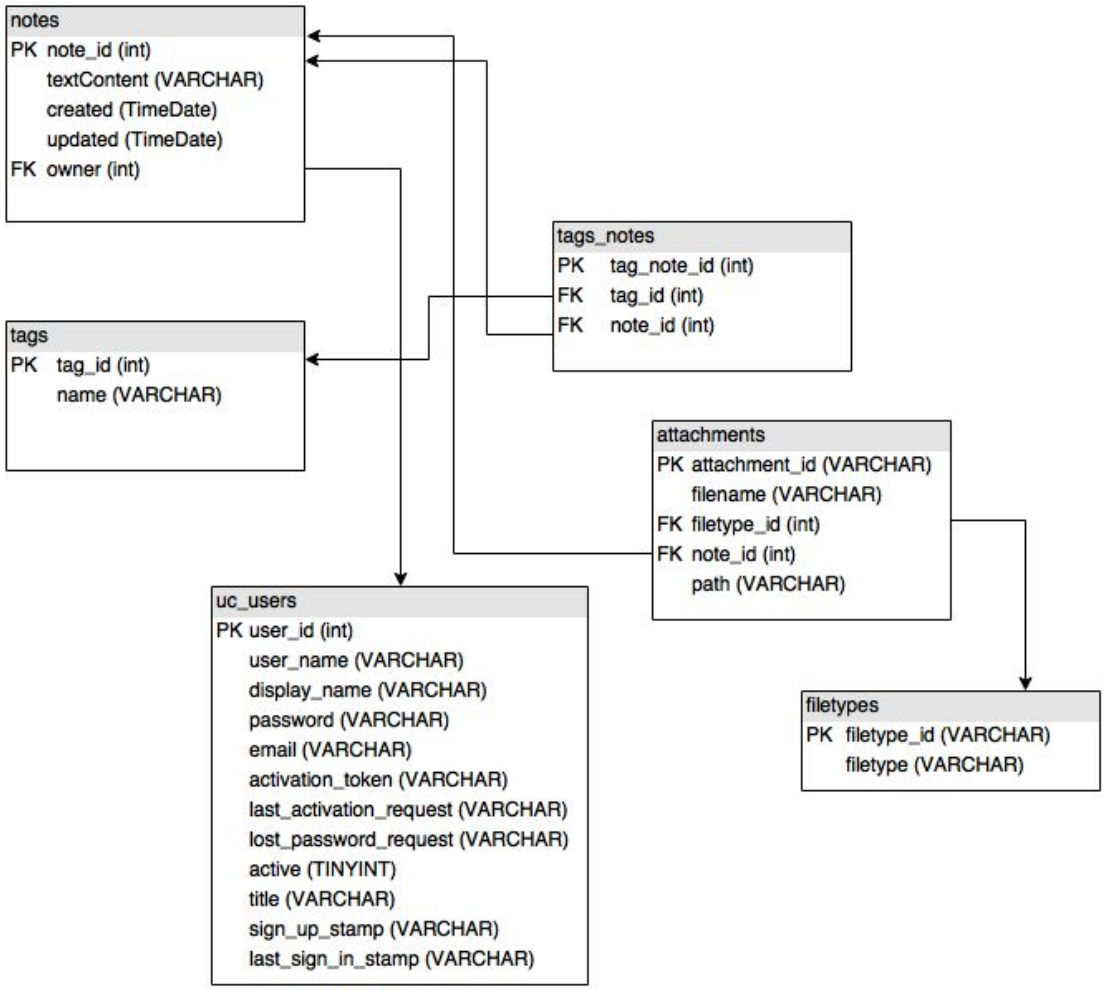
Schedule of Implementation

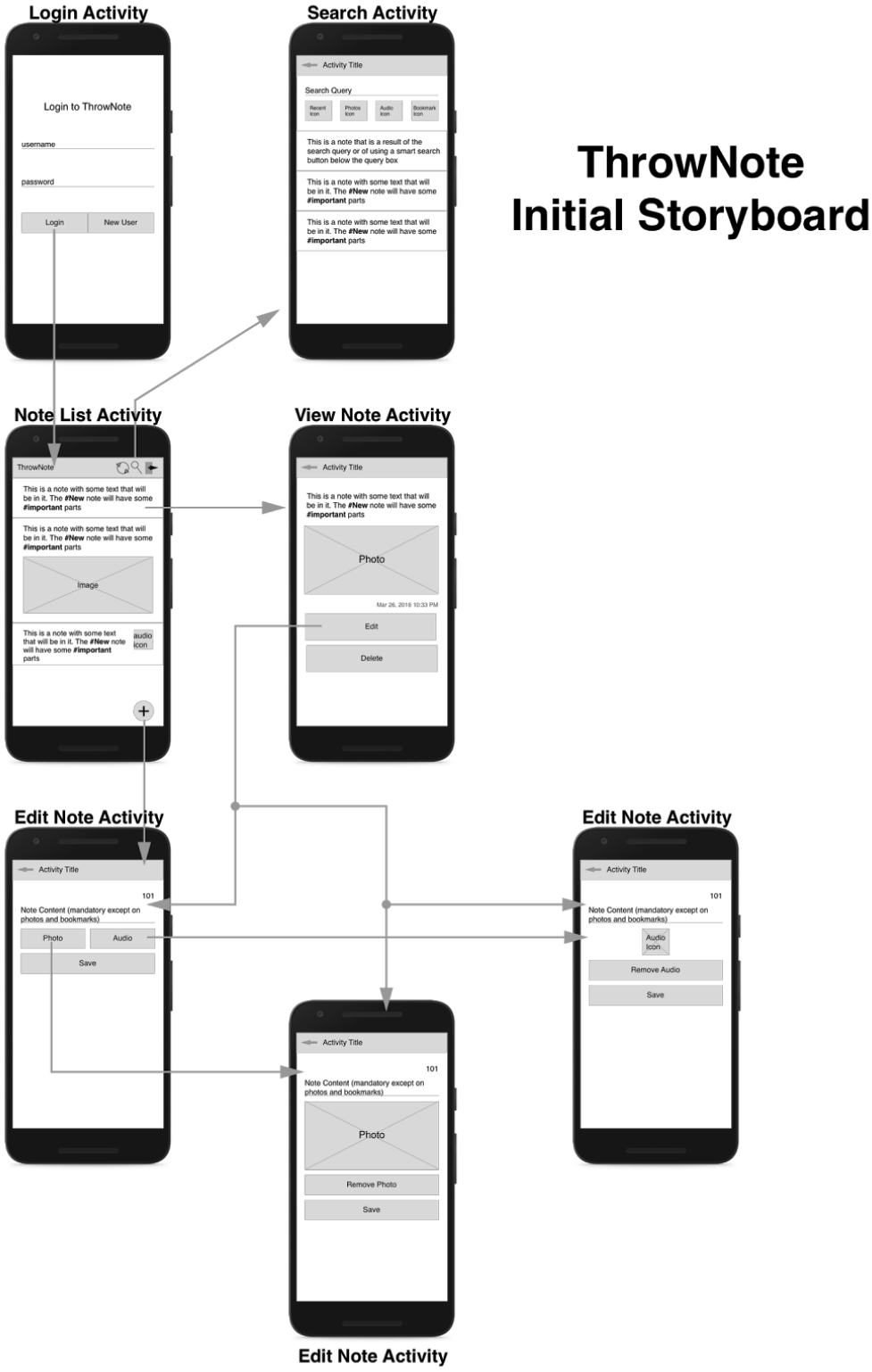
- **28 March**: Proposal Finished, API in progress
- **4 April**: API & PHP authentication complete. Technical reference manual progress
- **11 April**: Android App Works locally. Syncing all text content
- **18 April**: Complete First Draft of Software and Documentation
- **25 April**: Final Draft of Software and Documentation (Final Submission)
- **27 April**: Final Presentation (8:00 - 12:00 noon)

Local Database Schema (SQLite)



External Database Schema (MySQL)



From UserCake Framework

ThrowNote
Initial Storyboard