**Probos**

Team 14 - Project Backlog

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**Problem Statement**

The open-source, federated social media service Mastodon has various clients available, but each has somewhat limited functionality compared to its web UI, especially on mobile platforms. Our project aims to be a better client with higher functionality and usability for Android platforms, including various customization options, notification settings, and other features in an intuitive user-friendly interface.

**Background Information**

**Audience**

Mastodon is a newer social media service, having been first released in October of 2016, but one of the major points that sets it apart from others is its decentralized model. Anyone who wishes to host their own “instance” of the service is able to, while still maintaining the ability for full communication with other such instances. This model allows for each instance to be moderated independently by its own set of rules and permits users to choose among instances for one that maintains policies they agree with. It is also attractive to some users because it means that no one person or corporation controls the entire system and its information, such as with Facebook and its data scandal last year.

**Other Mastodon apps**

While decentralization may be one of Mastodon’s greatest strengths, it has not done the service any favors in terms of mobile clients. Currently, the only official platform for mobile devices is the web user interface. There are several libraries available that implement Mastodon’s API in order to open up mobile development to the public, and several developers have published apps for the service (ex. Tusky, Mastalab, Subway Tooter), but many of them still lack some of the features that Mastodon provides. For example, Tusky does not support the ability to create and edit Lists or delete and redraft a message with one command. Our goal is to focus on shortcomings these apps face to develop a visually appealing, more fully-featured client than those currently available.

**Functional Requirements**

1. As a user, I want to view “toot” messages sent by others.
2. As a user, I want to send “toots.”
3. As a user, I want to adjust the privacy setting of a “toot” (public, unlisted, followers only, direct message) on a message-by-message basis.
4. As a user, I want to attach a content warning to “toots” as needed.
5. As a user, I want to be able to delete and redraft my previous messages.
6. As a user, I want to change which timeline I am looking at (personal, local, or federated).
7. As a user, I want to log in to my account(s).
8. As a user, I want to be able to log out of or switch the account I am using.
9. As a user, I want to carry over the list of profiles I follow to a new account.
10. As a user, I want to edit my profile icon and banner images.
11. As a user, I want to carry over my picture and banner to a new account.
12. As a user, I want to edit my account “bio” information.
13. As a user, I want to be able to follow other users.
14. As a user, I want to see my list of followers.
15. As a user, I want to change my display name.
16. As a user, I want to mute/block other users.
17. As a user, I want to change my notification settings.
18. As a user, I want to create new “Lists”.
19. As a user, I want to edit and delete “Lists”.
20. As a user, I want to scroll to view older “toots”.
21. As a user, I want to favorite/pin “toots”
22. As a user, I want to reply to specific “toots”
23. As a user, I want to boost “toots”.
24. As a user, I want to view a list of the “toots” I have favorited.
25. As a user, I want to save message drafts.
26. As a user, I want to show or hide media attached to a “toot.”
27. As a user, I want to access custom emoji from my instance. (if time allows)
28. As a user, I want to enable media only mode. (if time allows)
29. As a user, I want to change my filter for words/phrases. (if time allows)
30. As a user, I want to customize the theme of the app. (if time allows)
31. As a server admin, I want to be able to ban accounts. (if time allows)
32. As a server admin, I want to modify the server’s theme/looks. (if time allows)

**Non-Functional Requirements**

**Architecture and Performance**

Since we will be creating a client app, we will only be focusing on a front end developed in Android Studio using the provided Java implementation of the API for Mastodon server communication. This should allow for wide compatibility with Android devices with few tweaks required. The app should require less than 35 MB of storage space for installation and should cache no more than 100 MB of data (timelines, displayed media, user icons, etc.).

**Usability**

Overall user experience is a high priority for our group, as high functionality means little to nothing if users do not enjoy using the application. Because we are designing for mobile devices, the app will be entirely touch-controlled, with support for simple gestures such as swiping to change between timelines. The interface should be well organized in order to be intuitive and easily understandable to the average user. It will support scaling to different screen sizes in order to support many devices, and it should have both landscape and portrait orientations available.

**Security**

We want our users to have confidence in their security when using our application. User interaction with the app will be brought directly to their instance, and when using the option to backup account information on-device, the process will be completed without sending it through any third party or external online service, excepting when using the Mastodon service itself.