**QuirkBoard**

**Software Requirements Specification**

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# **Introduction**

## **1.1** **Scope**

The QuirkBoard app aims to be a mobile social media application that features location-relative social interaction on a national, and potentially global scale. The app aim to utilize precise GPS tracking to create a dynamic map that allows users to see posts closest to them first, without taking away their ability to explore posts from people farther away. There is no app available for Android devices that utilizes the location of a user with as much depth as this app. This app’s location-relative system is different from all other apps available in app stores. Users can comment on any post, no matter how far away that post is from them. Since all social media sites or apps today are using similar userfaces (scrollable lists of posts), and there have been no changes in a while, this app offers an interactive and *quirky* interface that users will enjoy.

## **1.2** **Definitions, Acronyms, and Abbreviations**

**Sticky Note** - A *120 characters*or less post on a quirkboard that is posted by a user based on their geographic location.

**Stickiness** - The value of a post that determines its popularity. Posts are initially given a stickiness value of 5 and that value is directly changed by other users. Users will never see the exact stickiness value of a post, but will see visual indicators of stickiness (thumbtacks, staples, etc depending on how sticky). Stickiness steadily decreases over time.

**Global QuirkBoard** - The publically visible hub where all Sticky Notes are posted.

**Private QuirkBoard** - Users can create private boards in which only they, as well as anyone that joins the board, can view/post in.

**Stretch Algorithm** - Algorithm that determines which posts are brought closer together or spread out, based on an abundance of posts in an area or lack thereof. Gaps of no posts are ignored (the board will always be densely populated).

**Tack/Detack** - Popularity system. When a user likes a post, they tack it (add on to it’s Stickiness). When a user dislikes a post, they detack it (take away from it’s Stickiness).

## **1.3** **User Profile**

The demographic of this application will include users of all ages, but social young adults (ages 15-30) living in urban areas are mainly going to be targetted. This application will target those who want to socially interact with others in, and even beyond their area. This age group consists of generally busy people, so this app will allow them to be able to socialize without interrupting their busy schedules. College students are also a part of this age group, so this app would allow them to interact with each other in an easy way.

# **2** **External Interfaces**

This section identifies ways in which Quirkboard interacts with people and other systems. Quirkboard uses Google and Android location services to get a user’s location. It also relies on user input for the data within all sticky notes.

Each post will be stored in the database, with properties: user, text, location, stickiness.

Each user will be stored in the database, with properties: account details (In-App account or external account such as Facebook), posts, popularity score (stickiness history).

## **2.1** **User Interface**

* When app opens, the first screen will be the global QuirkBoard (background like a cork board - posts look like sticky notes).
* There is a button in the corner to deal with settings and accounts (statistics are shown inside Account screen).
* The user will see the stickiness of each posts, visually represented at the top of the post’s sticky note (thumbtacks, staples, etc depending on how sticky).
* To comment on the posts, the user has to touch the sticky note. The note will flip around, showing the post’s content as well as the post’s comments.
* User can scroll around the board to see posts created from farther locations.
* User can zoom in/out to see more or less posts. Users can scroll faster if they are zoomed out.

## **2.2** **Data Interface**

An implemented server stores templated data and information regarding users and posts.

Each post will be stored in the database, with properties: user, text, location, stickiness.

Each user will be stored in the database, with properties: account details (In-App account or external account such as Facebook), posts, popularity score(stickiness history).

**3** **Specific Requirements**

## **3.1** **Functional Requirements**

* Users can post text to a sticky note.
* Users can scroll around the Quirkboard to see other notes relative to their location.
* *Users can click the home button to return to their initial location*
* *Users can view and interact with other posts from Android and Apple users*
* Users can tack and detack other posts.
* Sticky notes automatically lose stickiness over time.
* Users can comment on other posts.
* Users can make a private quirkboard so that they can socialise with only specific people.
* Users can only post sticky notes when their phone is connected to the internet and has location services enabled.
* *Users can view their Quirkboard statistics such as cumulative stickiness, highest stickiness, total number of posts, and active posts*
* *Users can access the settings page from the Global Quirkboard to view the Terms of Service, Contact Us page, and scroll speed.*

## **3.2** **Performance Requirements**

* Users can post sticky notes and have them appear on the board within a second.
* Users can scroll around the quirkboard and have other posts populate instantly
* Users can see their tacks and detacks affect other posts instantly
* Users can see their comments appear on other sticky notes instantly
* *Sticky Notes will populate off-screen so that they are immediately viewable when users scroll to them.*

## **3.3** **Design Constraints**

### **3.3.1** **Constraint: Private Quirkboards**

Having users make a Quirkboard that is NOT visible to everyone, only certain users, will take too long to implement and will require us to have user identification. For this reason, it is out of scope for us at this time

### **3.3.2** **Constraint: Images and videos**

The implementation of sticky notes with images or videos would require a whole new level of coding in the app, much more space in the database, and introduces a whole new problem in regards to censorship. This is not a challenge we wish to tackle at this time.

**3.3.3 Custom Locations**

The ability of the user to post from a location they are not actually in would reduce the level of immersion in our app. We decided as a group we want the location relative interaction to be the focus of our application, so posting from a location set by the user is not in the scope of our project right now.

***3.3.4 Reporting Posts and Comments***

*Because our application is going to be a free, anonymous social media application that is available to anyone, there is a risk of posts and comments having obscene/offensive content. To allow the user the ability to report a post or a comment to the moderators would be ideal, but due to time constraints, this feature will be out of scope. We expect to be able to personally moderate the content of the posts and comments and remove any obscene/offensive content.*

## **3.4** **Data Requirements**

Each post will be stored in the database, with properties: user, text, location, stickiness.

Each user will be stored in the database, with properties: account details (In-App account or external account such as Facebook), posts, popularity score(stickiness history).

*The comments column was moved from the USERS table to the POSTS table.*

*The key changed to User ID in USERS and to Post ID in POSTS.*

USERS

|  |  |  |  |
| --- | --- | --- | --- |
| **User ID** | ***Cumulative Stickiness*** | ***Post IDs*** | ***Most Popular Post*** |
| *U3726* | *124* | *{P47294, P35234}* | *55, “Quirkboard iz gr8”* |
| KEY |  |  |  |

POSTS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Post ID** | **User ID** | **Text** | **Comments** | **Location** | **Stickiness** |
| *P47294* | *U3726* | *“look at…”* | *{P71723, P9121}* | *{234,123,436}* | *12* |
| KEY |  |  |  |  |  |