**Android App Data Collection**

How data is being collected

The app uses an Android API that allows us to see the usage statistics of a user during a certain interval of time. We collect the data every 5 seconds so that we can monitor the change in the values later on. The app is able to collect statistics for every app on the users phone.

Data being collected

* App name (string)
* Start time (timestamp): The start time of the interval we are measuring
* End time (timestamp): The end time of the interval (When data was sent to db)
* Total time (long): Total time app was in foreground during interval (How long user interacted with the app)
* Total count (integer): How many times user opened the app during the interval
* Last Used (timestamp): Last time app was closed

To analyze the data we will monitor the change in the Total time, Total Count, and Last Used.

**Note: The phone stores usage statistics for one year. After a year a rest occurs on the start time of the interval**

How the App is organized

LoginActivity.java

* This file deals with the logic of sending a login request to the server, retrieving the response, and determining whether the user exists or not.
* Most of the logic is handled in the attemptLogin() function

displaydata.java

* This file handles the logic for starting and stopping the background service with a toggle button

MyService.java

* This file handles the background service
* The background service will be comprised of an AlarmManager that collects and buffers the usage statistics and then sends the data to the database once a day.

Ustats.java

* This file has functions that implement the UsageStatsManager API and allows the app to collect data