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
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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 collect the data and buffer the usage statistics and then send 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

BootReceiver.java

- This file is used to handle to on boot logic so that the phone will start collecting data when the user turns their phone back on

Privacypolicy.java

- This file deals with the privacy policy

MySingleton.java

- This file contains function that are called when server requests are made