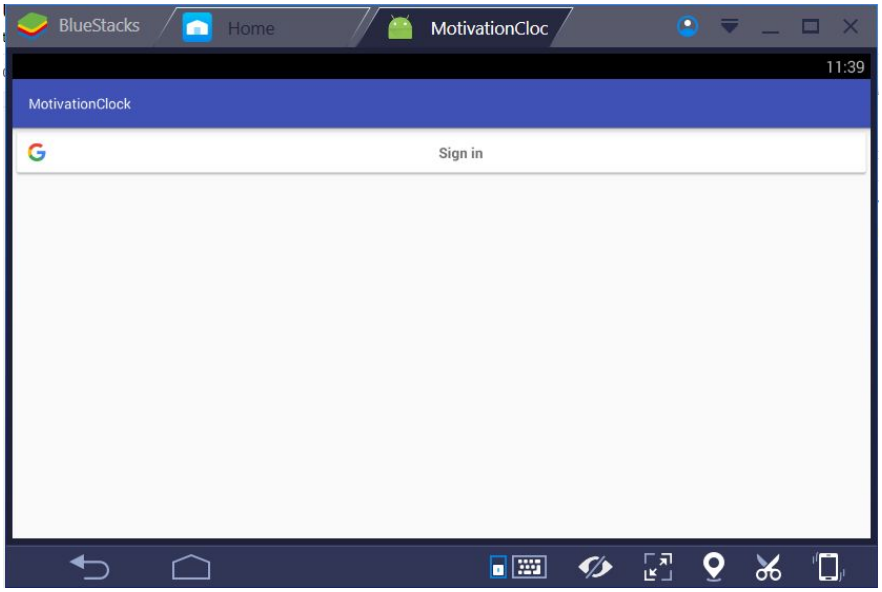
# Beta Release Unit Tests

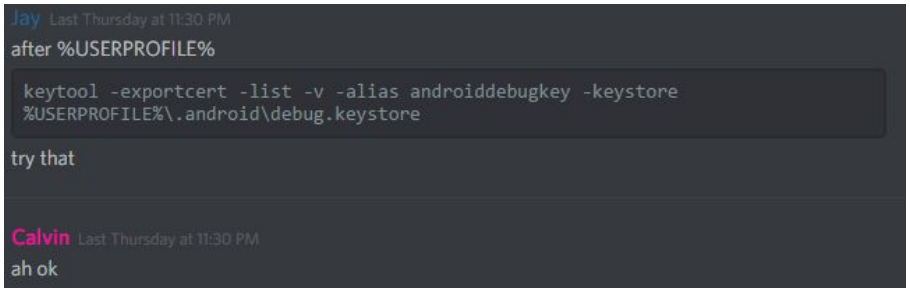
Major/Existing Component: The Login Screen

One of the major components of the Motivational Alarm is that users will be able to complete tasks, and earn achievements as rewards for completing said tasks. With that being said, our team had decided to use Google Firebase and its development platform as a means for using User Authentication and a DataBase to store our tasks/achievements, as well as tracking a user's progression with completing these objectives. We've also decided to use Crashlytics along w/ FireBase as a means to get information about our uses and their crashes.

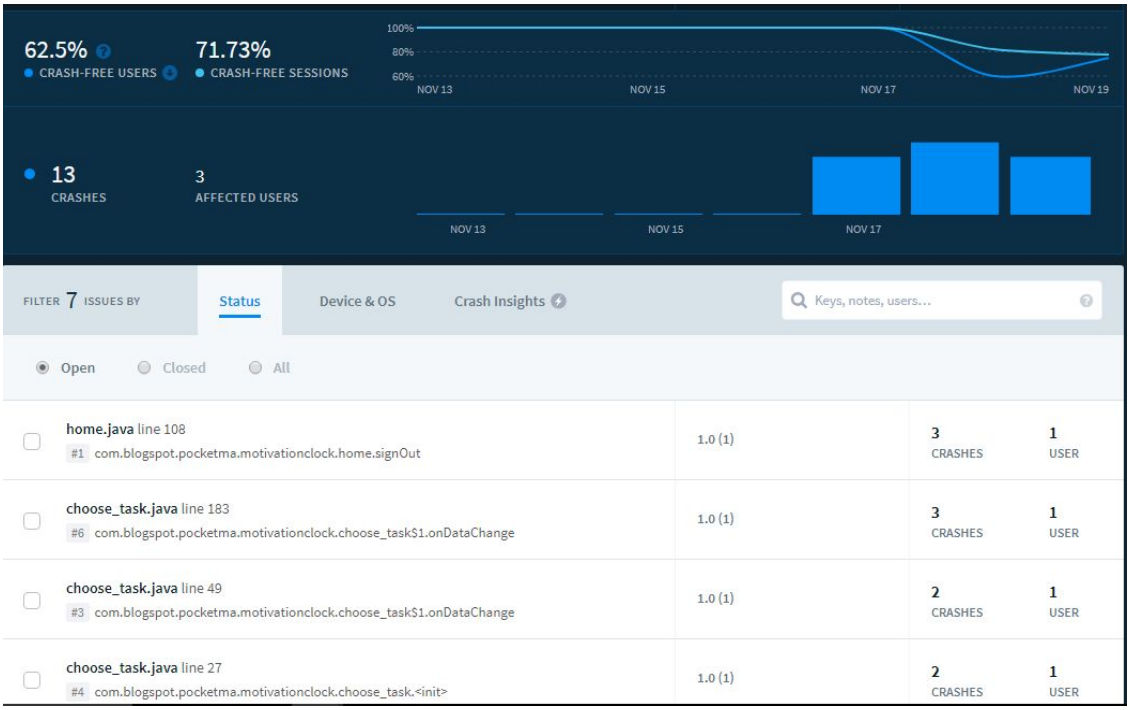
With our login screen, Users are to use a google email/account to access our app (as we're using Google FireBase)




We decided to test the logins using as  many google emails as we could, seeing how successful each login would be. An issue had occurred where a user would be able to login to their emails using the default gmail login screen (like you would normally see when accessing Gmail), but would then be stuck on the page with no way to actually access the app.

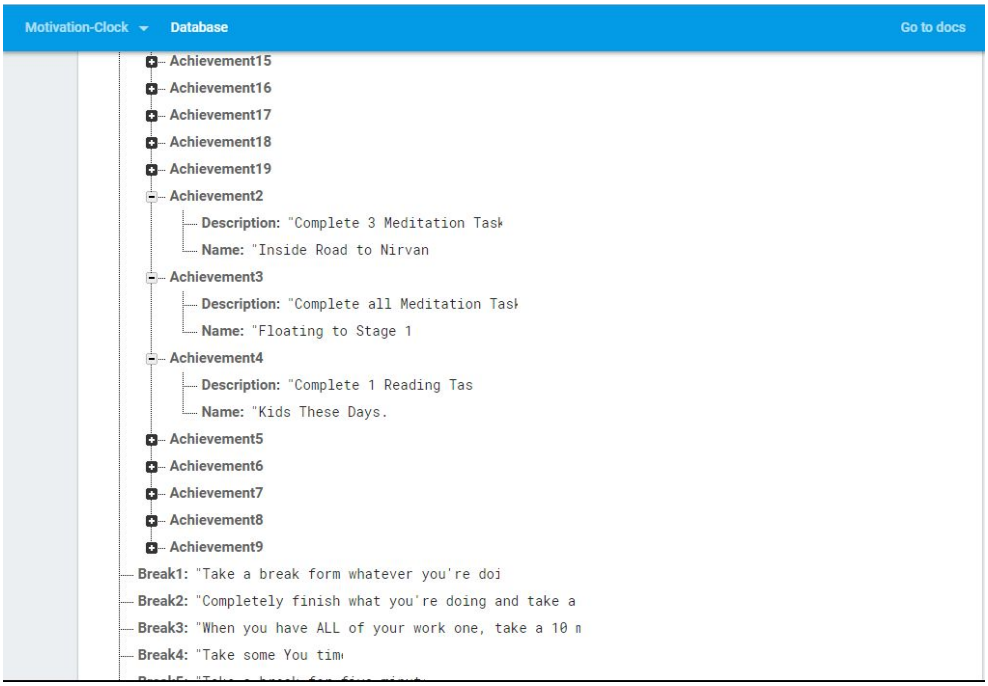



Thankfully, after looking into the issue more, we were able to find out that not all of our test units were in sync, so only some of the emails/users could log in while others were stuck. So by adding the users onto the FireBase. not only were our logins successful, but our Crashlytics data center started to function properly as well. We were able to get all of the emails used for our tests onto both databases, giving us a “preview” of what the system could possibly look like.



Not yet implemented feature: Achievements

Our achievements page will be using a similar storage method as our task list, which uses Google FireBase's data structure system.




Our tests before implementing this consisted of writing some of our tasks and achievements into the Database, and further planning out how to implement these 2 things.

System tests for the functionality represented by at least one use case

One of our use cases involved an Actor who was bored and had spare time, in which he pressed the "I'm Bored" button in the Motivational Alarm and was given set tasks to complete.

Above is a picture of the list of tasks given to the User after either pressing the “I’m Bored” button, or waking up to an alarm.


After inserting each of the tasks into the Google FireBase database, we tested out placing 5 of these tasking (randomly picked) onto any of the 5 buttons as shown in the emulator’s screen above. One of the issues we found w/ testing is that task’s kept being randomly generated after leaving the task screen instead of staying fixed.

However, with further testing, we were able to figure out how to retain the tasks after 1 generation using the Users unique Google ID, so no further issues were had.