



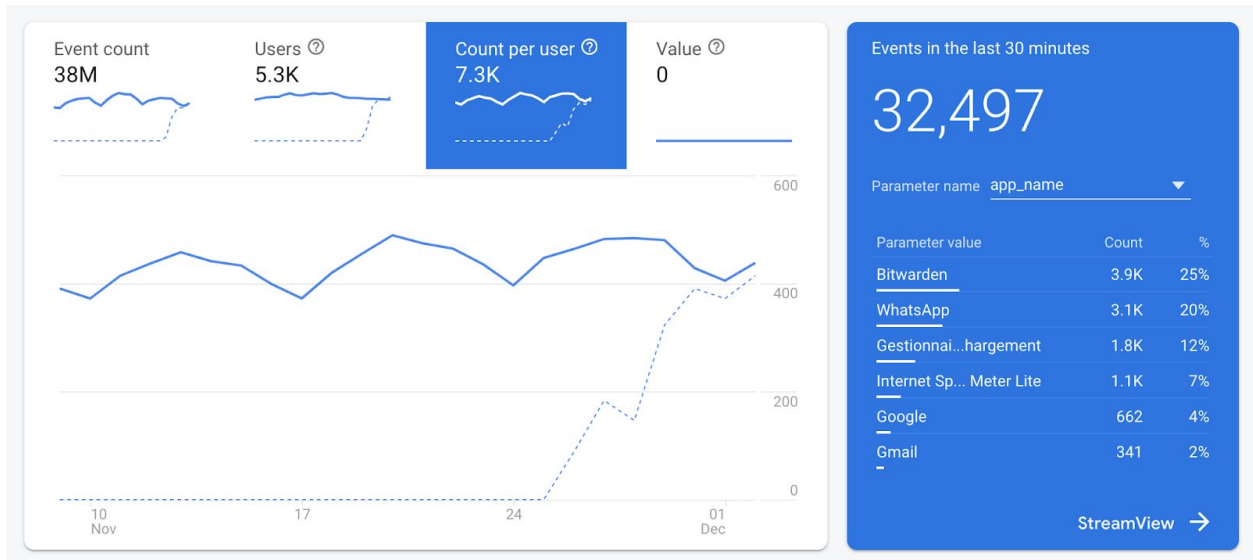
Tell us what your idea is.

An average user receives 150 notifications in a day. These notifications contain promotions, spam which a user might not even look at. Crono is designed to cut through the clutter and provide a notification experience that surfaces only useful information in the notification drawer. With Crono, your notifications will become smart notifications.

The Crono logo, consisting of the word "crono" in a white, lowercase, sans-serif font, centered within a blue rounded rectangle.

Currently, Crono acts as a bridge between android device and pc. Notifications are synced between browser and android device. User can share files and clipboard data etc. Crono has about 15000 active users, growing daily. Crono is available at <https://play.google.com/store/apps/details?id=com.getcrono>

But that's not all.



Firestore Analytics screenshot for notifications processed by Crono (per user)

Tell us how you plan on bringing it to life.

Notification Classifier

I will build a **TensorFlow Lite** model, by manually training notifications (tens of thousands of notifications). Tensorflow model will be integrated into Crono Android app.

- The model will identify similar types of notifications and group them under categories.
- This model will work offline, as it will be integrated into android app.

Notification classifier will be a model that will predict the type of notification. Based on the content of notification the model will categorize the notification into the following five categories.

1. **Primary** will contains notifications that are categorised as high priority notifications. These notifications will be displayed in the Notification drawer.
2. **Messages:** All the notifications that are categorized as conversations by the Tensorflow model will fall under this category. These notifications will leverage Android Notification grouping and will form a single group in the Notification Drawer.
3. **Transactions:** Any notification that contains sensitive financial information like bank statements, credit card transactions will fall under this category.



4. **Promotions:** Notifications that are categorised as spam will come in this category. Crono will auto remove these notifications from the Notification Drawer. User can still access these notifications from Crono app.
5. **Reminders:** Tensorflow Lite model will also detect time-sensitive + important notifications. Crono will show these notifications under Reminder group. Also, Crono will make sure to remind the user about the notification context at the appropriate time.

Required Google Services

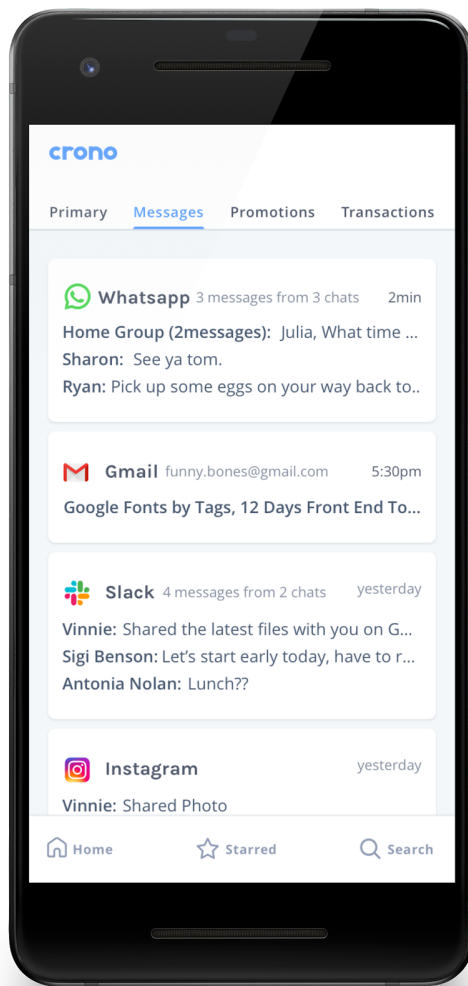
1. **Firebase**
2. **TensorFlow Lite**
3. **Google Cloud Functions**

Timeline

1. **December-January:** Generate training dataset from notifications.
2. **February:** Training TensorFlow model and integration into Android App
3. **March - April:** App logic + UI + UX work
4. **May:** App launch



Crono Interface



How can I use Google's Help

- **Mentoring:** I would love to learn from Google engineers on how to move forward with my idea
- **Data Set:** The main challenge with any ML based project is proper dataset. May google can help with a better version of data set than my own.

Tell us about you.



I am Abhishek, a software developer from India. I have about 5 years of work experience handling Android development and Backend. I majorly code in Kotlin, Java and Scala. I have participated in Google Summer of Code (14,15) and Google Code-In both as a student and mentor. I am a huge fan of technology and gadgets.

Next steps.

- Be sure to include this cover letter in your GitHub repository
- Your GitHub repository should be tagged #AndroidDevChallenge
- Don't forget to include other items in your GitHub repository to help us evaluate your submission; you can include prior projects you've worked on, sample code you've already built for this project, or anything else you think could be helpful in evaluating your concept and your ability to build it
- **[The final step is to fill out this form to officially submit your proposal.](#)**