

**Objective** - Predict the propensity to churn for the users provided in the data.

**Definition of Churn** - If user uninstalls the app (event\_name = app\_remove) then they are defined as churned user

**Expected Output** -

1. Presentation on approach and findings
2. Provide the output data in below format for users who have not churned yet in the dataset

user_id	Probability to churn	Rank
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**Note** - If you don't find any information on event here you can google it, all custom events are available on google documentation

**Documentation of custom event\_name:**

(A) Few of the events/variables provided in data sheet

**1. user\_engagement:**

Triggered when a user interacts with the app for a set minimum duration.

**2. screen\_view:**

Triggered when a screen transition occurs, firebase analytics logs a screen\_view event that identifies the new screen.

**3. session\_start:**

A session\_start is triggered when the user interacts with the app for a minimum of 10 seconds in foreground and before this interaction the app was idle for more than 30 mins. A session would be considered completed when more than 30 minutes had passed since the app was in the foreground.

Read more:

<https://firebase.googleblog.com/2018/12/new-changes-sessions-user-engagement.html> 4.

**first\_open:**

Triggered when the user launches an app after installing or re-installing it. **Imp:** This event is not triggered when a user downloads the app onto a device, but instead when he or she first uses it.

**5. ad\_click:**

Triggered when a user clicks on an ad.

**6. ad\_impression:**

Triggered when a user sees an ad.

**7. app\_clear\_data:**

Triggered when the user resets/clears the app data, removing all settings and sign-in data.

**8. app\_exception:**

Triggered when the app crashes or throws an exception.

**9. app\_remove:**

Triggered when the app is uninstalled.

**10. app\_update:**

Triggered when the app is updated to a new version and launched again.

**11. os\_update:**

Triggered when the device operating system is updated to a new version.

**(B) Customized events by Developers.** (We always have suffix – event/events at the end)

**1. ad\_close\_event:**

Triggered when an ad is closed.

**2. album\_art\_change\_event:**

Triggered when the user tries to change the thumbnail of the image displayed on the playing window song.

**3. audiobooks\_event:**

Triggered when the user clicks on hamburger (3-line menu) -> Audiobooks and does an

action. **4. bottom\_option\_click\_event:**

Triggered when the user clicks on any of the 5 options on the bottom, i.e., 'Playlist', 'Songs', 'Artist', 'Album' or 'Folders'.

**5. equalizer\_event:**

Triggered when the user clicks on hamburger (3-line menu) -> Equalizer and does an

action. **6. feature\_popup\_events:**

Any popup we give for a new feature through remote config triggers this event.

**7. floating\_player\_event:**

Triggered when a user plays a song directly from file storage or internal storage folders in the phone.

**8. genres\_page\_event:**

Triggered when the user clicks on hamburger (3-line menu) -> Genres and does an

action. 9. **ham\_burger\_click\_event:**

Triggered when the user clicks on hamburger (3-line menu).

10. **landing\_page\_events:**

Triggered when the users do any action viz. 3 dot option click, long press options selected, or any other options inside any page out of, Playlist, Songs, Album, Artist, Folder etc.

11. **inside\_page\_event:**

Triggered when users do any action viz. 3 dot option click, long press options selected, or any other options **inside an actual** playlist, or a folder, or an artist. For the inside playlist we are getting separate data, however, data for inside actions on other list items like Album, Artists, etc. is present at aggregate level only for now.

12. **list\_item\_clicked\_event:**

Triggered when the user clicks on a list item, like Song, or Playlist, or Album. This can be better understood if you look at the string values showing what activity is happening.

13. **lyrics\_page\_events/lyrics\_open\_event:**

Triggered when the user opens the lyrics in the playing window or does some control actions in the lyrics page.

14. **mini\_youtube\_event:**

Triggered when the user minimizes the YouTube video window or does an action in the mini window. Has only three string values as of now.

15. **notification\_events:**

Triggered when the user uses the notification panel to listen to songs, or clicks on the player window present in the notification panel.

16. **number\_of\_items\_event:**

This event when triggered basically tells us the count of the number of items on a particular 'current\_page', viz. the count of items in 'Songs' page, or 'Playlist' page, 'Audiobooks', 'Manage Presets', etc.

17. **permission\_event:**

Triggered when the app asks the users for any of these 3 permissions: Storage, Camera, Contacts. Also tells us if the user denied or allowed.

18. **playing\_window\_event:**

Triggered when the user has the song playing window open in the foreground or the user does any action/clicks buttons in the playing window, viz. Favourite, Add to playlist, etc.

19. **playlist\_event:**

Triggered when a user does an action in the playlist page, like, CREATE\_NEW\_PLAYLIST,

ADD\_SONGS\_DIRECTLY\_TO\_PLAYLIST, and ADD\_SONGS\_TO\_EXISTING\_PLAYLIST.

**20. ringtone\_cutter\_event:**

Any action performed in terms of cutting or making a ringtone via 'Ringtone Cutter' triggers the event and feature shows up here.

**21. settings\_page\_event:**

Triggered when a user clicks on hamburger (3-line menu) -> Settings and performs certain action in the Settings page.

**22. theme\_event:**

Triggered when a user clicks on hamburger (3-line menu) -> Themes and does an action.

**23. video\_notification\_event:**

When a video is played in the app, its details come up in the notification panel just above the music player's panel. If a user clicks on 'back', 'next', 'pause', 'cross', etc. then this event is triggered.

**24. voice\_assistant\_event:**

Clicking on the 'mic' icon near the top search bar triggers the event.

**25. wellness\_event:**

Triggered when the user clicks on hamburger (3-line menu) -> Calm and does an action.

**26. widget\_event:**

Triggered when a user listens to a song from the 'widgets' area of his/her phone.

**27. youtube\_event:**

Triggered once the user reaches the YouTube video window or does an action in the window.