**Database Structure**

Reminders can be on multiple devices, and can be coming and/or going reminders

Reminders need at minimum a Description with optional body.

To send a non-device reminder to multiple people, two reminders are made, one for each user

* Devices
  + DeviceID1
    - Device-user
      * Going
        + Count: 0
        + Flag: false
      * Coming
        + Count: /\*number of reminders\*/
        + Flag: /\*set to alert function\*/
    - User1
      * Going
        + Count: 0
        + Flag: false
      * Coming
        + Count: 0
        + Flag: false
    - User2
      * Going
        + Count: 0
        + Flag: false
      * Coming
        + Count: 0
        + Flag: false
  + DeviceID2
    - Device-user
      * Going
        + Count: 0
        + Flag: false
      * Coming
        + Count: 0
        + Flag: false
    - User3
      * Going
        + Count: 0
        + Flag: false
      * Coming
        + Count: 0
        + Flag: false
    - User1
      * Going
        + Count: 0
        + Flag: false
      * Coming
        + Count: 0
        + Flag: false
  + DeviceID3
    - Device-user
      * Going
        + Count: 0
        + Flag: false
      * Coming
        + Count: 0
        + Flag: false
* Users
  + DeviceID1
    - Reminders
      * D1Reminder1
        + Body: Message body
        + Destination: anywhere
      * D1Reminder2
        + Body: who knows what could be put here
        + Description: /\*Brief description of reminder\*/
  + DeviceID2
    - Reminders
      * D2Reminder1
        + Body:
        + Destination:
        + Description:
  + DeviceID3
    - Reminders
      * D3Reminder1
        + Description:
        + Destination:
  + User1
    - Devices
      * DeviceID1
      * DeviceID2
    - Reminders
      * U1Reminder1
        + Body: Bring the boxes full of books, and the new card game
        + Description: Bring boxes
        + Destination: Mom’s house
      * U1Reminder2
        + Description:
      * U1Reminder3
        + Description:
  + User2
    - Devices
      * DeviceID1
    - Reminders
      * Reminder2
      * Reminder3
  + User3
    - Devices
      * DeviceID2
    - Reminders
      * Reminder4
      * Reminder5

**Cloud Messaging (Notifications)**

User1 subscribes to

* User1
* DeviceID1
* DeviceID2

User2 subscribes to

* User2
* DeviceID1

User3 subscribes to

* User3
* DeviceID2

**Functions**

When flag Devices,DeviceID1,Device-user,Going goes high, publish a message to FCM-topic DeviceID1; if there’s only 1 Going/Coming reminder, message takes from reminder Description, Body, etc.; if there are more than 1 Going/Coming reminders, message states how many reminders there are, and destinations.