



TALKIE

By

Karnbongkot Boonriong

62011135

Joshua Daniel Sevilla

62011127



INTRODUCTION

Talkie is an Android Chatting Application inspired by LINE, Whatsapp, Viber, etc. It's basically simulating a Private Chat (Person to Person Chat).



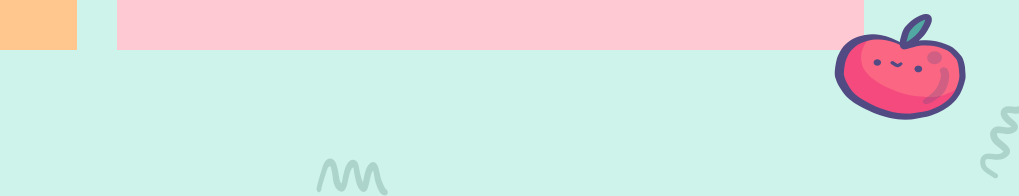
Problem & Solution

Problem

User Authentication

Solution




Use Firebase
Authentication



Firestore Authentication

E-mail

User ID

Identifier	Providers	Created	Signed In	User UID ↑
62011135@kmitl.ac.th		Nov 10, 2020	Nov 22, 2020	HoVudDwHw8gW3M8FN8HJ6TSq...
karnbongkot@gmail.com		Nov 10, 2020	Nov 19, 2020	IV5FmgzwWcM06JKc1igmAEDbit...
62011127@kmitl.ac.th		Nov 11, 2020	Nov 11, 2020	zh2nemhXLCQfYAMj3uzSQdAwotI2

Registration

**New users can create
their account**

**Put user's
information on to
Firebase**

Registration

Username

Password

E-mail

REGISTER

Login

**Check user's
information with
accounts on Firebase**

**If the information
matches, take user to
main activity**

**If not, give a Toast
error**

Login

Username

Password

LOGIN

REGISTER




Problem & Solution

Problem

Saving user information

Solution

Use Firebase Realtime
Database



Firestore Realtime Database

MyUsers

+ HoVudDwHw8gW3M8FN8HJ6TSqEIE2

- IV5FmgzwWcM06JKc1igmAEDbit02

id: "IV5FmgzwWcM06JKc1igmAEDbit02"

imageUrl: "https://firebasestorage.googleapis.com/v0/b/tal..."

status: "Online"

username: "kbuaaaaaa"

- zh2nemhXLCQfYAMj3uzSQdAwotI2

id: "zh2nemhXLCQfYAMj3uzSQdAwotI2"

imageUrl: "https://firebasestorage.googleapis.com/v0/b/tal..."

status: "Offline"

username: "Daniel"




Problem & Solution

Problem

Adding other users

Solution

Use Firebase Realtime Database to search for other users, store requests and Friend list.



Firestore Realtime Database

Request

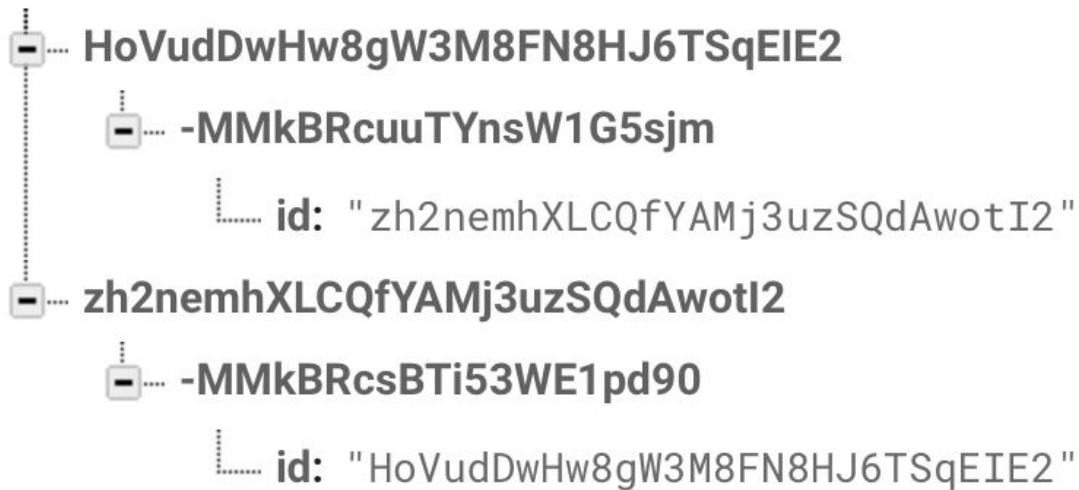
```
[-] ... IV5FmgzwWcM06JKc1igmAEDbitO2
```

```
  [-] ... -MMkORBeJ7SSVBQlZPqi
```

```
    [ ] ... id: "HoVudDwHw8gW3M8FN8HJ6TSqEIE2"
```

Firestore Realtime Database

FriendList

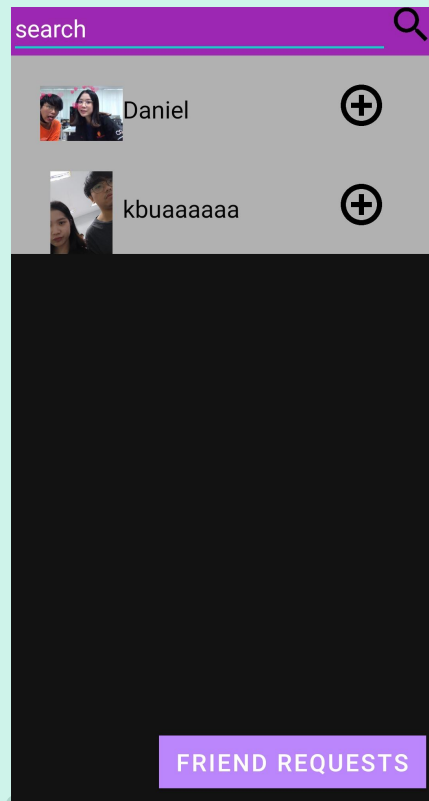


Search for other user

User click search button

Query data from
Firebase and list
them down

A When user click the
add button, request
will be store in
Firestore

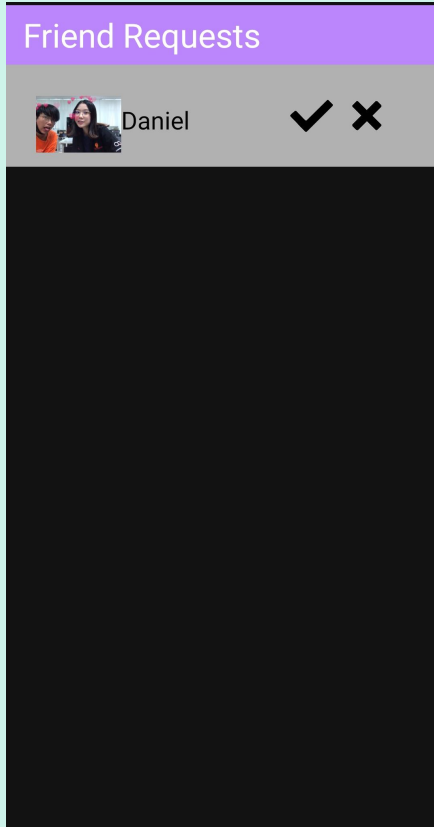


Friend Requests

**List user's request
from Firebase**

**Click accept, that
user's ID will be added
to their friend list**

**Click decline, the
request will be
removed**






Problem & Solution

Problem

Contacts and list of user's chat

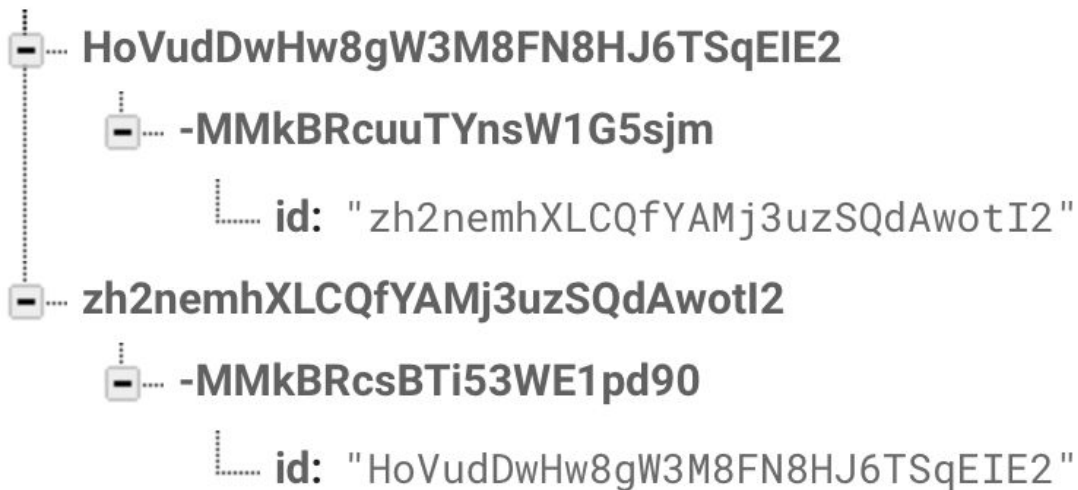
Solution

Use Firebase Realtime Database to store list of user's contact and conversation.



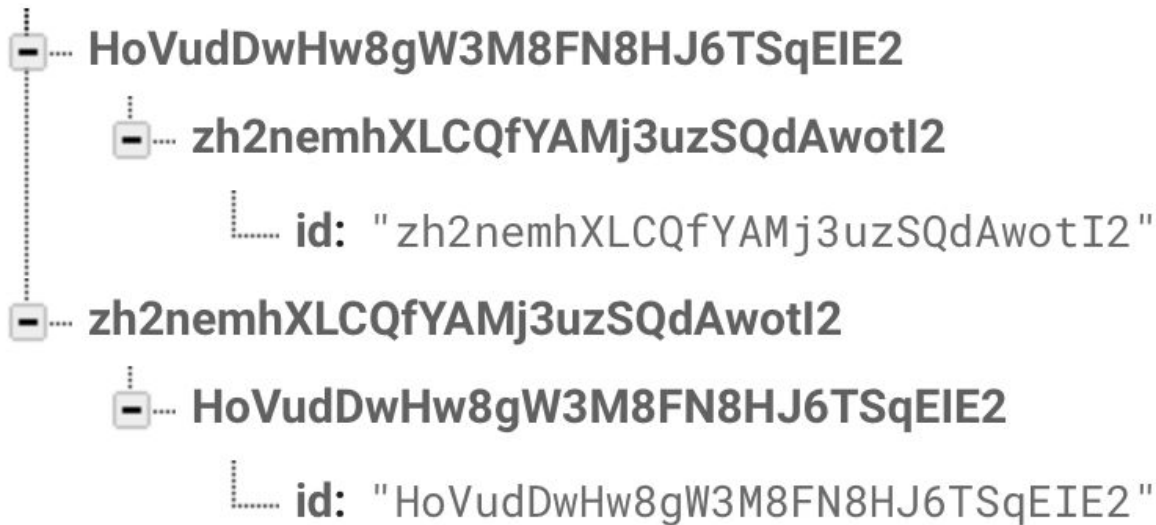
Firestore Realtime Database

FriendList



Firestore Realtime Database

ChatList

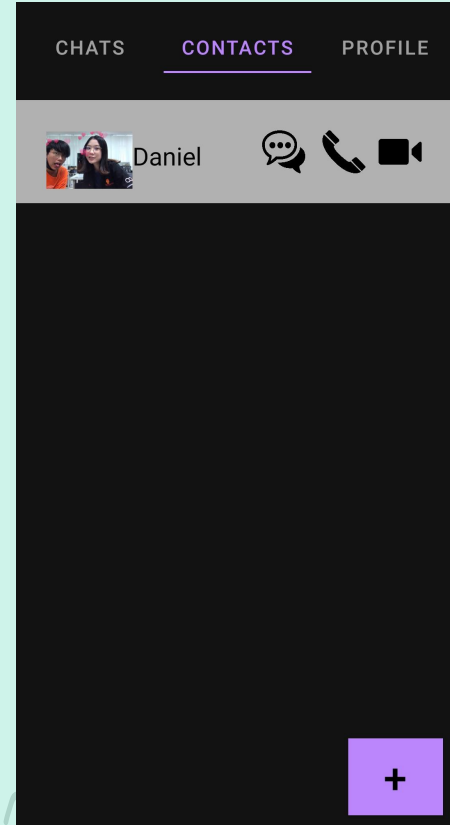


Contact

List user's contacts
from Firebase

The "+" will direct
user to the adding
activity

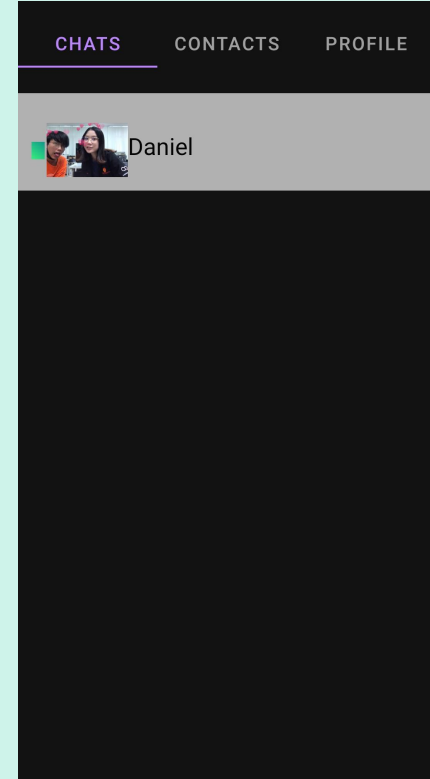
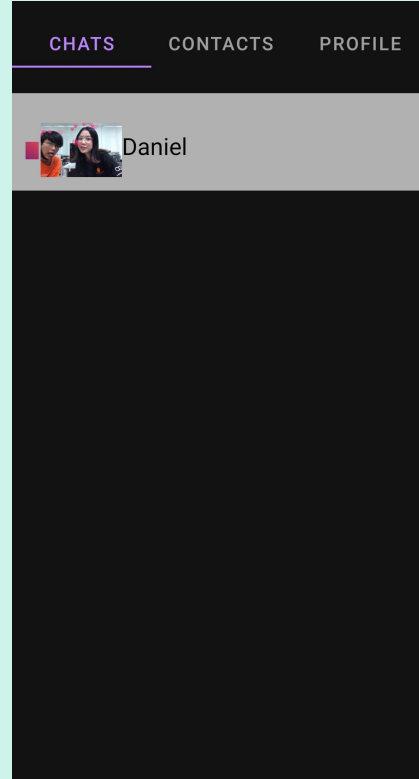
Future plan : groups



List of Conversation

**List user's
conversation**

**Show the status of
user's contact
(Offline/Online)**






Problem & Solution

Problem

Chatting

Solution

Store messages on
Firebase Realtime
Database



Firestore Realtime Database

Chats

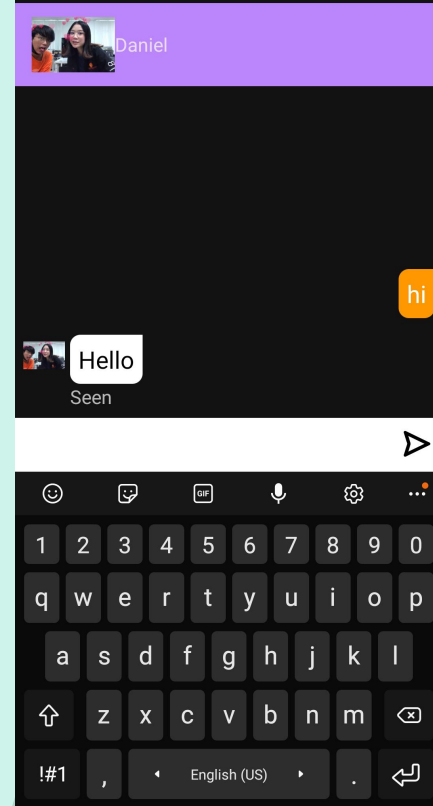
```
-MMkBTkdfD0JvuUCp5Ui
  message: "hi"
  receiver: "zh2nemhXLCQfYAMj3uzSQdAwotI2"
  seen: "y"
  sender: "HoVudDwHw8gW3M8FN8HJ6TSqEIE2"

-MMkBWK_wTtv6dMzjMTY
  message: "Hello"
  receiver: "HoVudDwHw8gW3M8FN8HJ6TSqEIE2"
  seen: "y"
  sender: "zh2nemhXLCQfYAMj3uzSQdAwotI2"
```

Chat

List the conversation

Future plan : add options to send other types of media (video, pictures, voice message) , group chat






Problem & Solution

Problem

Calling/Video calling

Solution

Use Sinch voice & video
APIs



Calling

**Future plan : show
username instead of
user's ID, show user's
profile picture**

zh2nemhXLCQfYAMj3u
zSQdAwotl2

INITIATING



zh2nemhXLCQfYAMj3u
zSQdAwotl2

INCOMING CALL



Calling

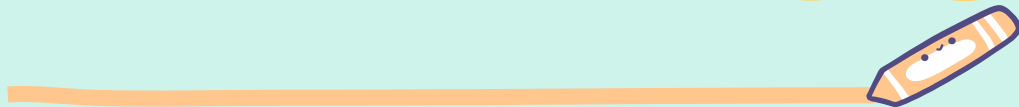
Future plan :
show username, add
mute audio, mute
video , group call.



Sinch Logs

2020-11-22 20:46:01.000 +0700 a97f2374-69df-48e0-8add-b16a8d53143e	data origination	HUNG UP	39 s 0.0000 USD	Talkie
2020-11-22 20:45:45.000 +0700 641abd2f-2eb8-4ac0-bacb-e2a46eb0a261	data origination	CANCELED	0 s 0.0000 USD	Talkie
2020-11-22 20:45:34.000 +0700 b277b2c6-c7aa-4405-ab54-72823f05ddb4	data origination	CANCELED	0 s 0.0000 USD	Talkie
2020-11-22 20:45:20.000 +0700 6d574661-b59a-4753-ae3c-231628212e64	data termination	DENIED	0 s 0.0000 USD	Talkie

THANK YOU



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