

# Flutter Chat App Documentation

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## 1 Project description

App allow users to communicate with each other, sending text and images. There are 4 pages:

- Sign in page - page where you can sign in with Google account;
- Home page - page where displayed list of chats;
- Add contact page - page where you can add contact by his email;
- Chat page - page where displayed list of messages, you can send either text or image;

## 2 Integrations

- `firebase_core` - core for using Google Firebase
- `shared_preferences` - used for storing user ID on device as "remember me" feature
- `firebase_auth` - package providing functionality for using authentication on Google Firebase
- `google_sign_in` - package providing functionality to authorise user by his google account
- `cloud_firestore` - package providing access to Cloud Firestore, where user's information and chats are stored
- `cached_network_image` - package for caching images (only on Android)
- `firebase_storage` - package providing access to storage where images are stored
- `image_picker` - package which allows user to pick image

### 3 List of optional requirements

- Support for Android and web
- Implementing BLoC pattern
- Signing in process (only google)
- Offline support (for web only text)

### 4 Instruction

For the first launch you need to sign in using your (or test one) Google account, then you will be redirected to home page, where at start will be no chats.

To add new contact, tap on icon of side menu, then "Add contact", page for adding new contacts will be shown. Type email of user you want to add, then press "Add", after that you will be redirected to chat page with this user. On bottom there will be button with camera icon, which after pressing it will show a window to pick up an image you want to send. No text can be attached to it. To send a message, type it in text field and press icon on the right. To return to home page, press arrow button on app bar or press "Back" button on phone or in your browser.

In home page chats with new messages will be marked with message icon. Tap on chat to enter chat page. In side menu there is "Sign out" button, which will obviously sign you out.

### 5 Test account

- Email: flutter\_test@gmail.com
- Password: 12345678

### 6 Database schema

There are two main collections in database: "users" and "chats".

- "users" - information about user, such as name, email, URL of photo. ID of document in this collection equals to userID used by Firebase Authentication
- "chats" - contains userID of users in this chat and "messages" collection with all messages related to this chat. Document in "messages" collection contains text and image URL (in case of sending text image URL equals to empty string and vice versa), userID of sender and timestamp.