Project Report
WeGotCups
Mobile development II3510

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Intro

WeGotCups is a mobile application which helps to organize events. Allows users to invite their friends to the event and helps make events easier to manage.

List of main features

- creating a new event
- editing an existing event
- deleting an event
- reading an event
- filtering old events
- inviting friends to an event
- sharing a music playlist
- notifications
- editing profile
- adding friends
- email + password authentification
- email verification
- profile pictures

Tech specs

- Target SDK: 32
- Min SDK: 23
- Version: 1.0
- Language: Kotlin

Design system

We decided to use Material Design 3, the newest design system from Google. That allowed us to make a better-looking app with a fresh and modern look.

Used Technologies

- Google Firebase
    - Firebase Auth
    - Firestore
    - Firebase Storage
- Glide
- Material 3

Solved problems

- Local storage of images
- Database asynchronous way of working
- sharing a music playlist

Application inner structure

Authorization of the users is done by email password pair. Email verification is done using one of the methods from the Firebase auth service. Same with the login verification.
Once logged in, the user does not need to login again until a logout.

The database is divided into three collections. Users, Events and Notifications. For easier interaction with the database the DatabaseHandler class was created. It consists of predesigned methods interacting with the database.

- Events have basic info about themselves, about the creator of the event, who they are shared to and what image is used for it.
- User documents in the database are connected by the id and mail to the Firebase auth users. They consist of basic user data, profile picture or eventually avatar image number.
- Notifications are sent when creating new users, sharing events, adding to friends or deleting events. They have information from where to whom they are sent, possible information about the event, what type they are and if they were seen

Firebase storage is used for keeping the pictures on the server. There are default images used for the events as well as some default profile pictures for users to use. They can be changed into any picture provided by the user. Then sent to the server.

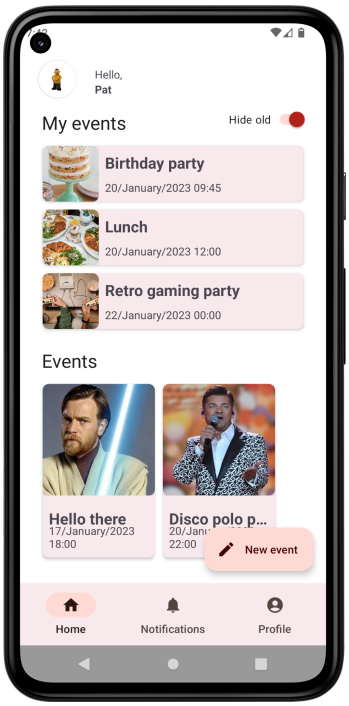
Glide is a package used for the image saving on the local device. Every time a new picture is encountered it is saved locally for faster later use.

Screens

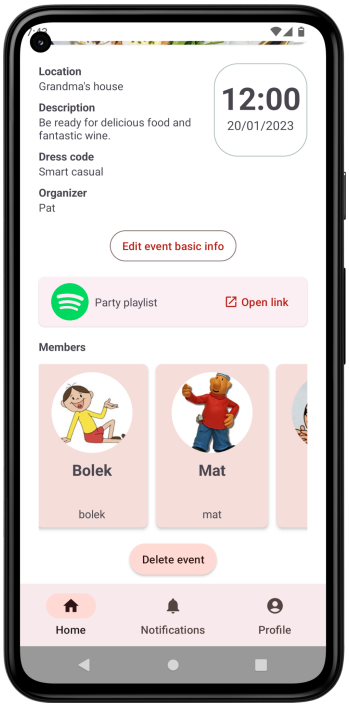
Our application uses bottom-tap navigation created from three main sections: Home, Notifications and Profile.

Home

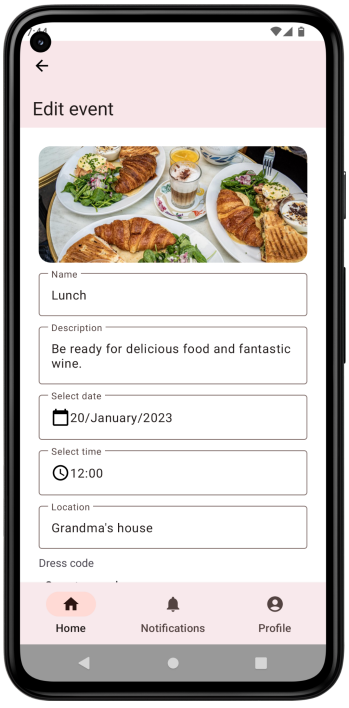
The Home screen contains a list of events and navigation to event detail. From the Home screen user can create a new event.



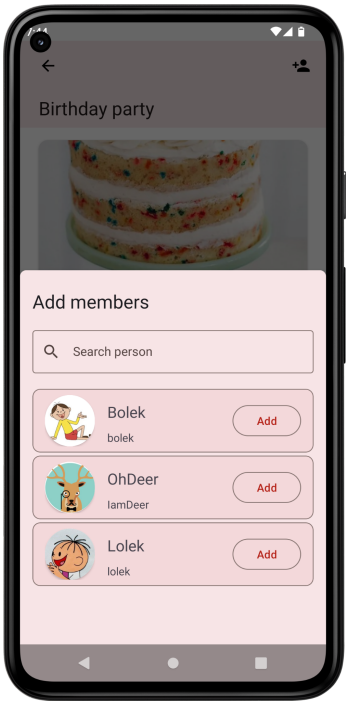
Home screen



Screen of event detail - contains all info and list of members



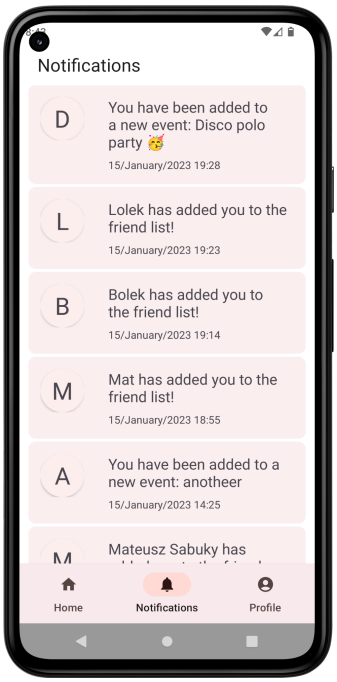
User can edit event



Author of the event can add members to event

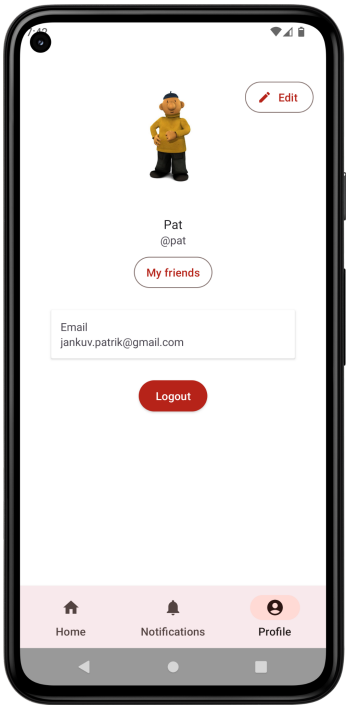
Notifications

It contains a list of all notification messages.

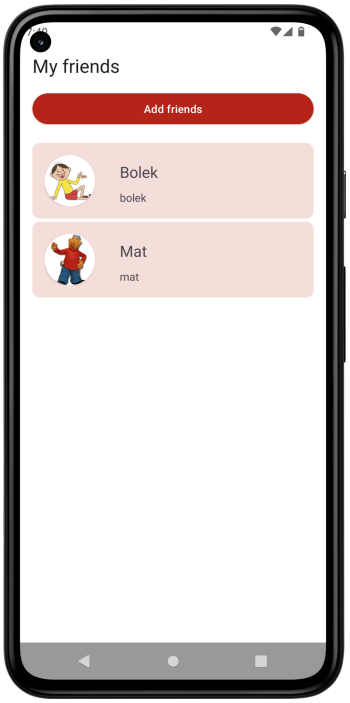


Profile

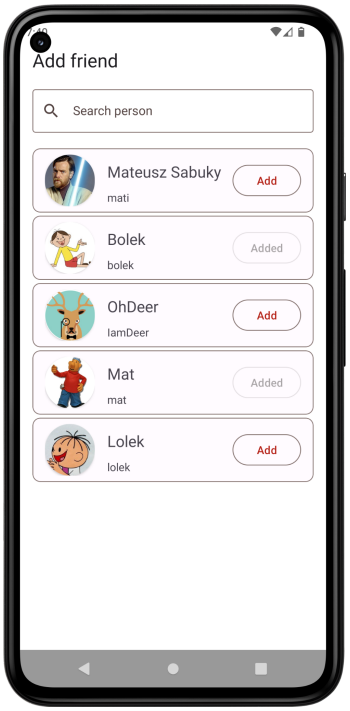
The Profile screen offers management of user info and friends.



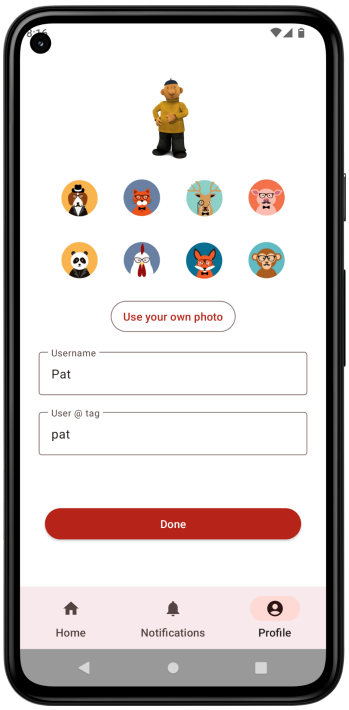
Profile main screen



List of users friends



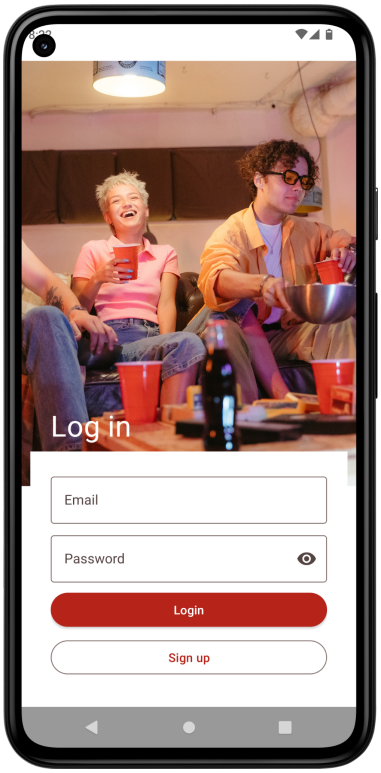
Adding new friends

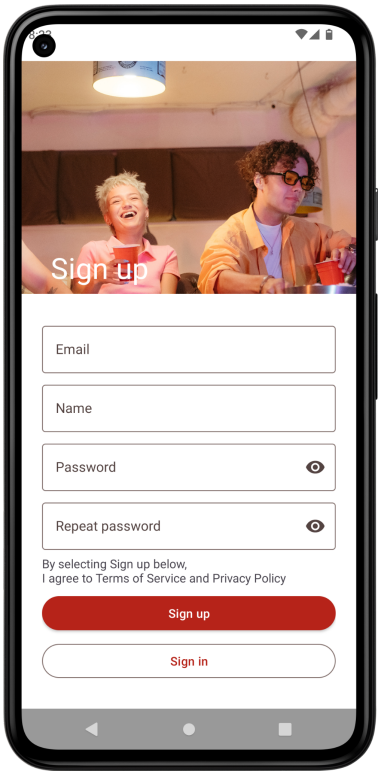


The screen editing user info. The user can select a name, username and profile picture. If the user doesn't want to upload his own photo, he can use one of the predefined avatars.

Login and Sign up

If the user wants to use our app, he needs to create an account. Our app allows creating an account with email and password. After registration, the user needs to verify his email, and after that, he can log in.





Features that can be added in the future

- Hiding chosen events
- Removing friends
- Exiting or removing from event member group
- Blocking other users
- Notifications leading to the event/user they are about
- Push notifications
- More collaboration by introducing tasks

Project overview

Lousy time management prevented us from implementing more features than we wanted. You can find lines of code that are not used but are prepared for additional functions in the source code. We also decided to cut the tasks feature and focus on properly implementing existing features and eliminating bugs.

Conclusion

WeGotCups is an app with fundamental functionalities that lack features thanks to lousy time management. However, the application is ready to add new features. As the primary deficit, we feel a lack of creating tasks, which could give the app a practical aspect and increase usability.