

Developed by Shavit Luzon, Computer Science and Mathematics Final Project.



## INTRODUCTION

The Give and Take Android application is a sharing social application that allows users the ability to upload requests and watch others' requests based on location.

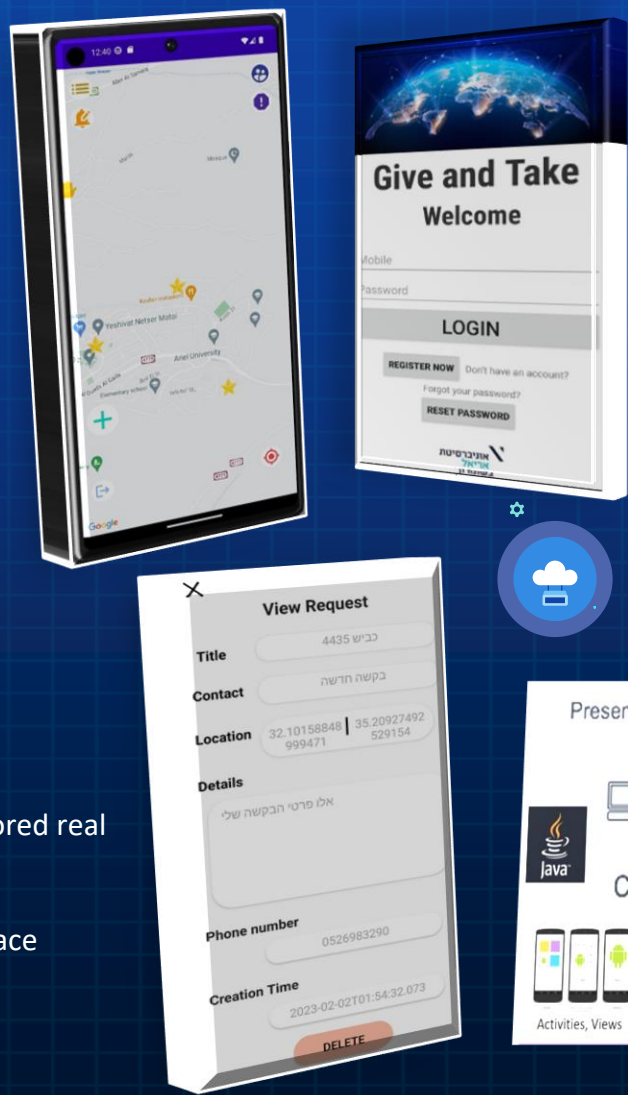
### PROJECT GOAL

To support a platform for users to "give and take" help and post events, easily based on location. For example, a partner for solving a math task, to study to sociology test or to seek volunteers for helping elderly near the campus

### CONSIDERATIONS THE SYSTEM NEEDS...

- requests to be browsed and stored real time
- location visualized
- to be kept an exclusive, safe place
- Users allowed to communicate
- Admin users managing the app

## IMAGES IN-APP



## METHODOLOGY

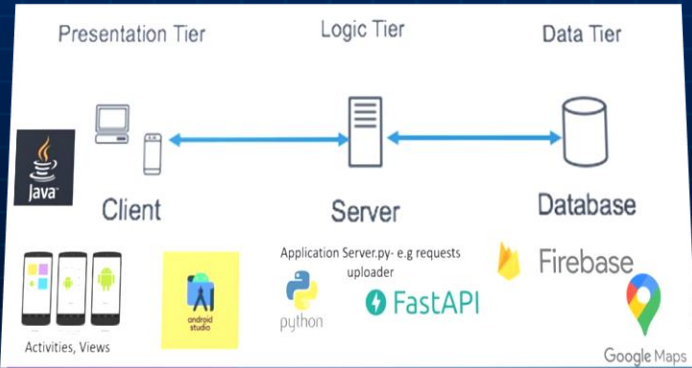
Combining the power of a map service- Google Maps, with database storing- Google Firebase Real Time database, to create a system dedicated for Ariel University's students and staff

### METHODS

- Java Android components
- Cloud Database
- Python server API
- Map service integration
- GPS sensor activation

### MODULATION

Using MVC Pattern for Android developing and 3-Tier Architecture:



## FUNCTIONALITIES THIS PLATORM PROVIDES...

- users to create requests and delete their own
- user registration and login with stored details
- a reliable, live and responsive map shared by users
- communication between the users of the application
- requests display by dedicated icons on map
- "Locate me" option on map
- notification of a new request or event according to the user's preferences: on a chosen radius of live/ pre-determined location



### ADMIN PRIVILLIGES:

- block users and delete requests
- add an event with a special icon
- watch users' list & users' requests' list



### SECURITY:

- two-factor authentication
- Requires university email verification to register users
- Requires phone number verification by SMS code
- Displays a notification on the phone about a new request or event according to the user's preferences.



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