ARIEL UNIVERSITY

GIVE AND TAKE INFORMATION SYSTEM POSTER Group ID: 40
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INTRODUCTION

Give and Take is an app designed to fulfill location-based needs and connect individuals seeking specific assistance or resources. Whether it's finding a study partner in the university library to tackle a challenging math problem, preparing for a sociology test, or locating volunteers to support the elderly near your campus.
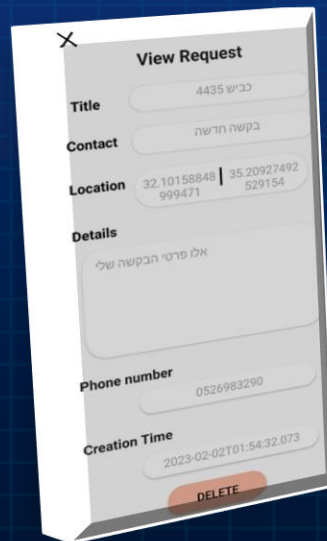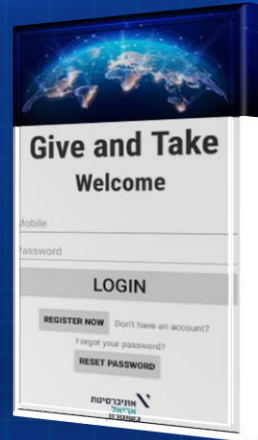
PROJECT GOAL

To create a robust platform that facilitates seamless connections and resource sharing within local communities. By leveraging location-based filtering, our aim is to provide users with a convenient and efficient means to find and offer assistance, exchange resources and engage in reciprocal acts of kindness.

SYSTEM CONSIDERATIONS

- Real-time browsing and storage of requests.
- Visualization of location information.
- Ensuring the system maintains an exclusive and secure environment.
- Facilitating communication between users.
- Provision of administrative user roles to manage the app.

IMAGES
IN-APP

METHODOLOGY

Integrating Google Maps as a map service and utilizing Firebase Real Time database for efficient data storage, to develop a dedicated system specifically designed for Ariel University students and staff. Through this system, users will have the ability to mark and share events on a collaborative map.
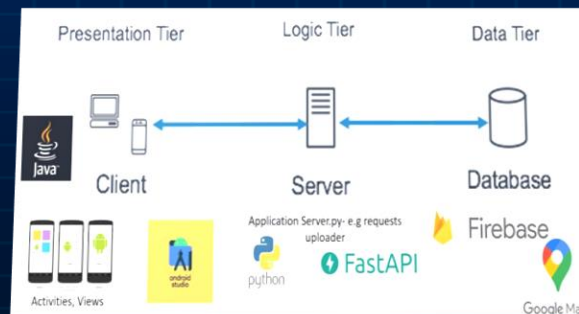
IMPLEMENTATION

- Java Android components for the app's functionality.
- HTML and CSS for the client-side user interface.
- Cloud-based database for data management.
- Python server API for handling server-side operations.
- Seamless integration of the map service.
- Activation of the GPS sensor to ensure accurate location tracking.

SYSTEM DESIGN

The system is developed using the MVC (Model-View-Controller) pattern for Android development and follows a 3-Tier Architecture approach.

FUNCTIONALITIES

The platform offers the following key functionalities:

- Users can create and delete their own requests.
- User registration and login with securely stored details.
- A reliable, real-time, and interactive map shared among users.
- Seamless communication between application users.
- Requests are displayed on the map with dedicated icons.
- "Locate me" option to pinpoint the user's current location on the map.
- Notifications of new requests or events based on user preferences and within a selected radius of live or pre-determined locations.

ADMIN PRIVILLIAGES:
- Ability to block users and delete requests.
- Option to add events with special icons.
- Access to users' lists and users' requests lists.

SECURITY & SAFETY:
- Two-factor authentication for enhanced user protection.
- User registration requires verification of the university email.
- Phone number verification is conducted through SMS codes to ensure user authenticity.

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