

Project Layout

Find My Friends - Android Application

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1.Introduction

1.1 Purpose

The purpose of this project is to make it easier to find friends in any city/country by using the GPS from Google Maps. Also you can create a user profile and interact with new people.

1.2 Product scope

The scope of this project is to connect people no matter where they are. The application allows users to:

- Find their friends
- Make friends with new people
- Exchange locations

2.Overall description

2.1 Product Perspective

This project was created with the idea of a self-contained product that helps people find their friends through a Global Positioning System. Users can also add in their friend list new people and remove them.

2.2 Product Functions

The final version of the product will have the following features:

- user registration
- user login
- user logout
- search function for users
- personal data about the user
- add friends
- remove friends

- share location
- find location of a friend

2.3 User Classes and Characteristics

The Users of the application will have the following rights:

- they can access the app by creating an account
- they can access the Google Maps
- they can view their friends' location
- they can view their personal information and add data
- they can view their friends' information
- they can share their location
- they can search and add/remove friends.

2.4 Operating Environment

The user minimum requirement is: Android 11.0. The application runs on both physical and virtual devices.

2.5 Design and Implementation Constraints

The integrated development environment, frameworks and the technologies used to create this project are the following:

- Ionic Framework.
- Flutter Framework.
- Corona Software Development Kit.
- Framework7.
- React Native Frameworks.
- jQuery Mobile Framework.
- Xamarin Android Framework.
- NativeScript Android Framework.

The integrated development environment is Android Studio Electric Eel | 2022.1.1 Patch 2 for Windows.

We use XML files because XML provides a standard method to access information, making it easier for applications and devices of all kinds to use, store, transmit, and display data.

The programming language that we use is Java.

2.6 Assumptions and Dependencies

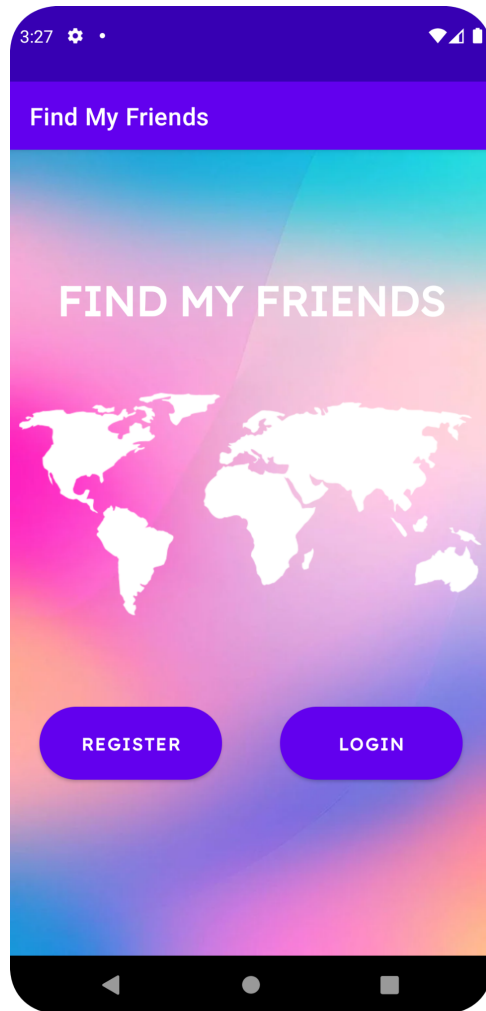
Not applicable.

3.External Interface Requirements

3.1 User Interfaces

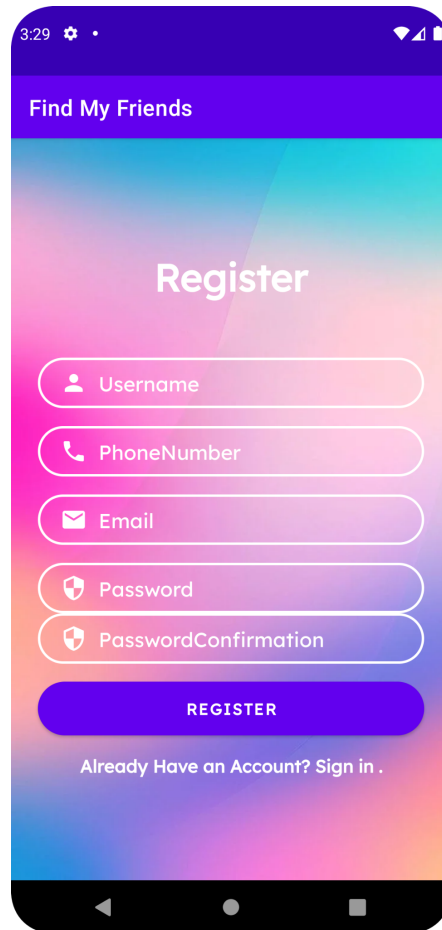
Main Activity

When the application starts, the users have to either log in the application(if the account is created) or register. For login and register we created 2 buttons, each button takes us to a specific page.



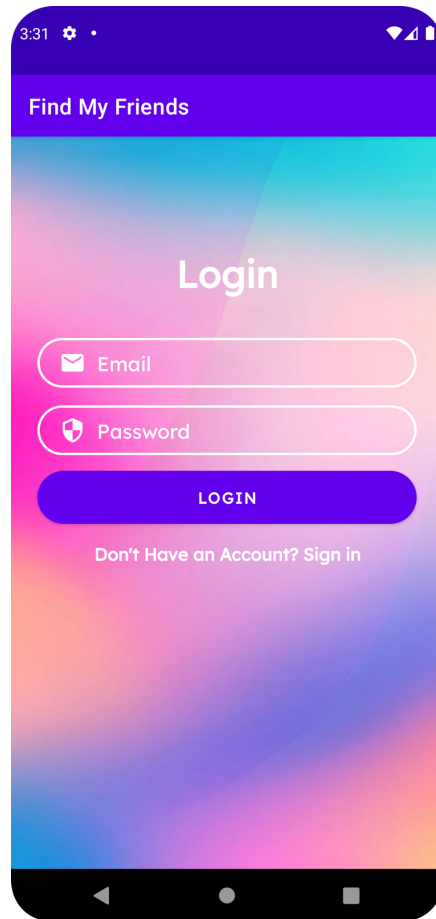
Register Activity

In the first instance, if a new user of the application wants to access it, he must create an account in the application by using the Register page. The next step is done by the application itself, saving the data, after which the user must access the Login page to enter the application.



Login Activity

To log into the application, the users must enter their personal data corresponding to their accounts. The next step is done by the application itself, which recognizes whether the username and password correspond to a user.



Maps Activity

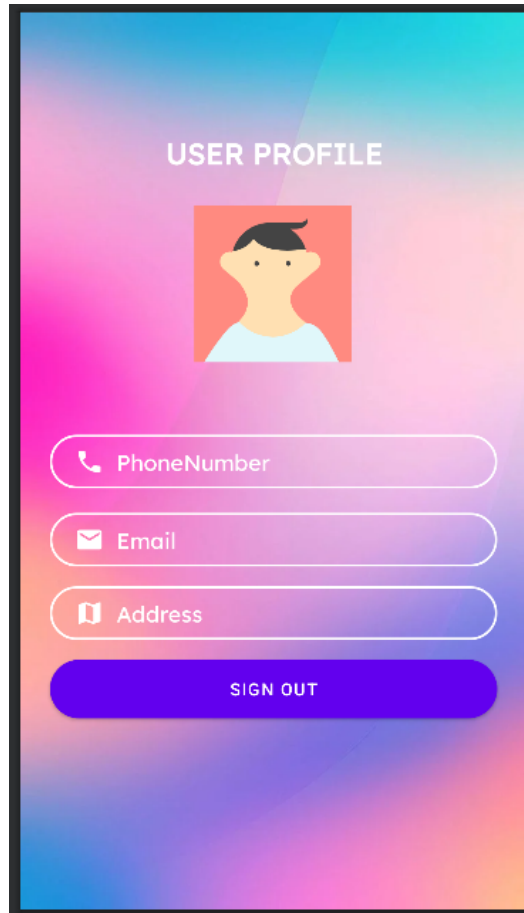
After successfully completing the login, the users of the application can view their location in real time on the map.

After adding friends, users will be able to share location, and thus they will be able to see both their location and the location of their friends.



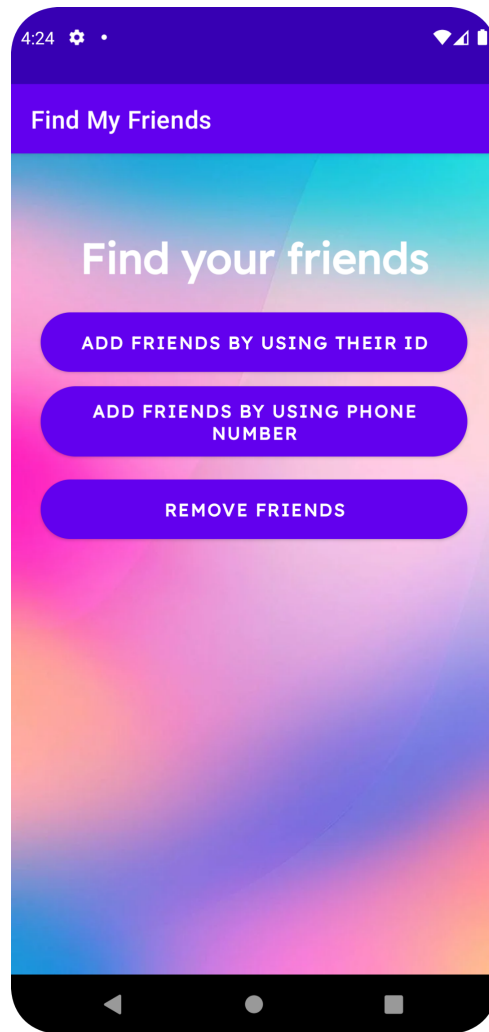
User Profile Activity

The users can view their own profiles and modify their data.



Find Friends Activity

And the most important interface of the application that users can access is to add/remove friends by using their personal ID/phone number.



4.System Features

In this paragraph are noted and described the functional requirements for the application.

4.1 Login User

4.1.1 Description and Priority

The user will be able to log in to the application using his specific account that the application will recognize.

Priority: High

4.1.2 Stimulus/Response Sequences

Input: On the register page the following information will be completed: user-specific password and username, then press the Login button.

Output: Login status.

4.1.3 Functional Requirements

- The user will enter the username and password.

- The user will press the login button.

REQ-23: Require a textbox in which the user enters the username.

REQ-24: Require a textbox in which the user enters the password.

REQ-25: Require a button that the user must press after entering the data.

REQ-26: If the entered user is the wrong one, then the login cannot be successfully and an error message will appear.

REQ-27: If the password entered does not correspond to the user then the user will not be able to authenticate successfully and an error message will appear.

REQ-28: If the username and password are entered correctly, the user will enter in Maps Activity.

4.2 Add your Friends

4.2.1 Description and Priority

On the Find your friends page, the user can add new friends by pressing one of the Add friends buttons, following the opening of a new page where the user will fill in the data specific to the selected type of addition.

Priority: High

4.2.2 Stimulus / Response Sequences

Input1: There is an Add button on the Find my Friend page.

Output1: The button will open a field for inserting the ID/phone number.

Input2: Press the add button

Output2: Save the data entered.

4.2.3 Functional Requirements

REQ-14: On the Find my Friend page there are 2 buttons for adding people on your friend list where the user will select the specific button.

REQ-15: After completing the field the user will press the Add button which will send to the person they want to add a message where they have to accept or refuse.