GitHub Username: danielluanv

WARY

Description

WARY (WhereAReYou) is an application that helps you locate your nearby friends without an internet connection.
The app works best outdoors and can locate people up to 200mts away (WIFI range).

Intended User

This app is intended for people that are in open and very crowded spaces, e.g. music festivals, and need to locate people around them.

Features

- Find nearby friends while being offline where search results are displayed with AR
- Store friends information
- Security Settings
    - Password before searching
    - Security Question
- Reachability Settings :: individually or in general
    - Always searchable → high
    - Notify me → medium
    - Block user → low
    - Not searchable → no trust → nobody find me

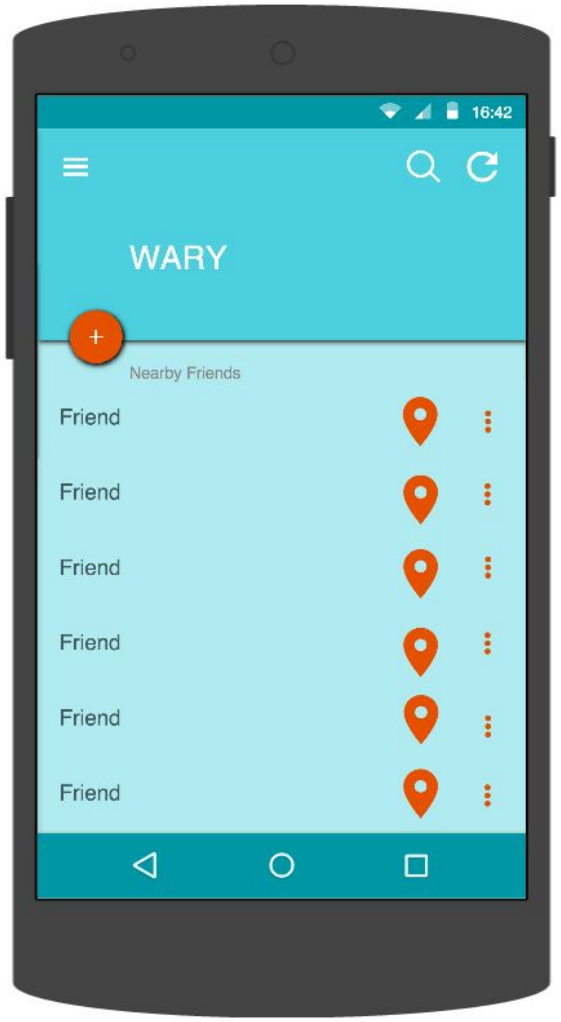
User Interface Mocks

These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Photoshop or Balsamiq.

Screen 0

	**Login** Login screen

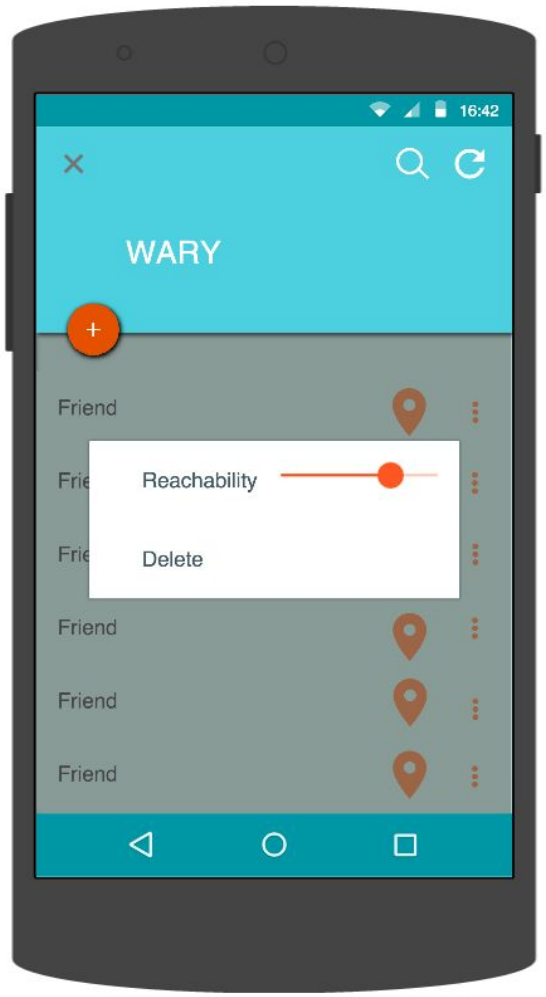
Screen 1



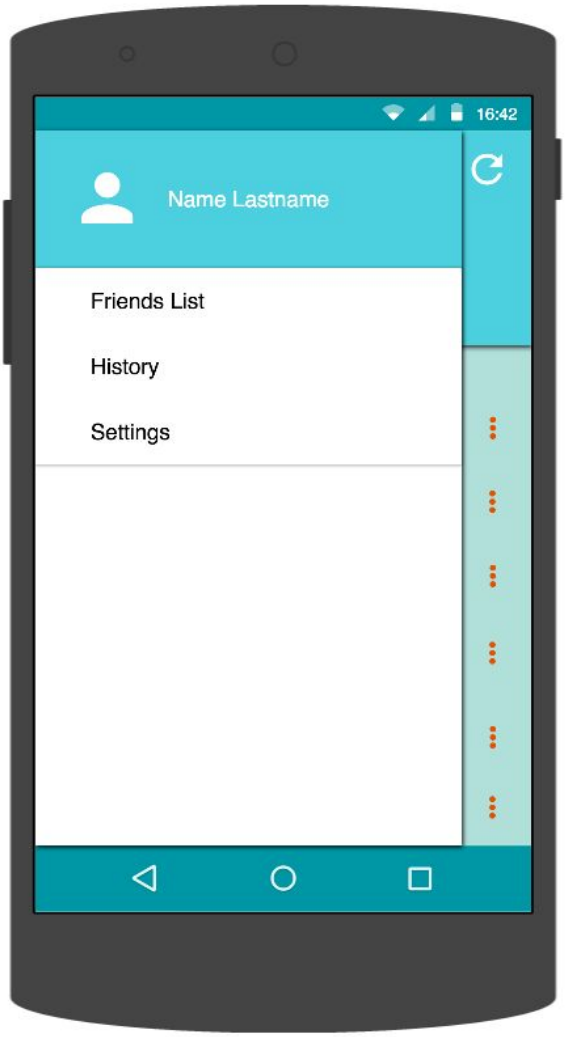
Friend List

This screen shows the user's friends. Here, the friends can be located and individual levels of reachability can be set.

Screen 2

	**Friend Options** Small individual menu for friends to define reachability or delete person.

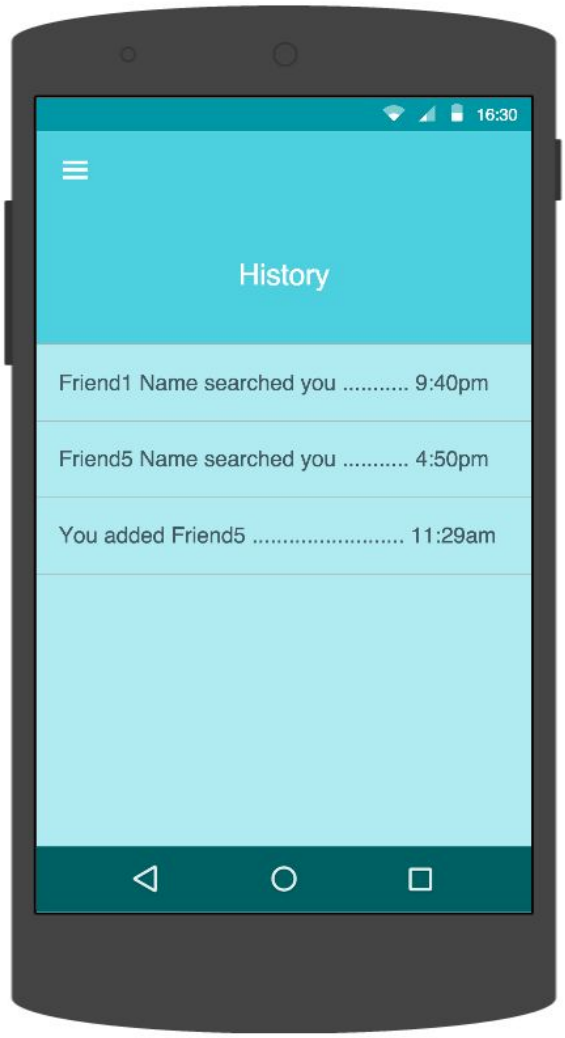
Screen 3

	**Navigation Drawer** Navigation options for the app

Screen 4

	**Result Screen** This screen shows the results of the search with AR.

Screen 5



History Screen
Screen to show a log of the user's actions

Key Considerations

How will your app handle data persistence?

Own Content Provider with SQLite to store relevant information from the user's friends, e.g. device's mac address and reachability setting, and a log of the user's actions.

Describe any corner cases in the UX.

The search process requires both devices to be already paired with a "handshake" in order for a device to be displayed in the Friend's List. If the user wants to find a friend that is not already on the Friends List and not besides him (at least in a direct line of sight), the handshake will be difficult to achieve or at least not straight forward as if both users were in front of each other. For this scenario I am considering that User A wants to find B, but B has the device locked and tucked in a pocket (worst-case scenario).

Possible solutions:

- Schedule a recurring notification/alarm in B's phone letting the user know that A is trying to pair the devices.
- Set off a notification that vibrates for a long period (10 secs maybe) to try to gain B's attention.

Describe any libraries you'll be using and share your reasoning for including them.

- Metaio: Displaying results with AR
- Google Play services: Obtain current location from user using FusedLocationApi, and GCM.

Next Steps: Required Tasks

Task 0: Prototype

- Prototype
    - Connect with nearby devices using wifi p2p
    - Share information with nearby devices using wifi p2p
    - Alternate workflows for communication between devices with wifi p2p
        - Connect/Communicate even if A is awake and B is asleep
    - Define discoverability flow.
        - How do we give the user the option to start/stop broadcasting?
        - How do we give the user the option to start/stop discovering nearby (wifi p2p) devices?
- Handle new issues that come up in this stage

Task 1: Project Setup

- Set up:
    - Google Play Services
    - Set up P2P Wifi
    - Set up Metaio SDK

Task 2: Implement UI for Each Activity and Fragment

- Build UI for:
    - Main Activity (Friends List)
    - Navigation Drawer
    - Settings
    - History

Task 3: Storage

- Define database
- Implement Content Provider and Sync Adapter.

Task 4: Connectivity

- Connect with nearby devices
- Share location with nearby devices

Task 5: AR

- Display search results with AR.