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Geo Care

Description

Geo Care is a simple , easy to use app for anyone who likes to track their path via GeoFencing. They can also track geopoint entrance or exit for their family members too.

## Intended User

Family.

Features

List the main features of your app:
- Saves geofencing locations
- Updates via notifications whenever we reach within a saved location.
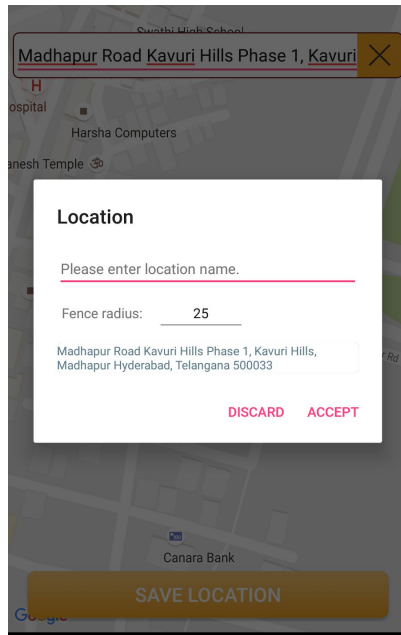- FCM notification to the concerned person..

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 1
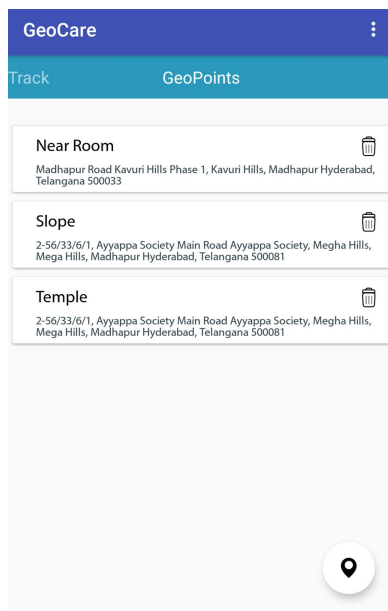
Here I will show all the saved locations, which will be further used for tracking geofences.

Screen 2

This is the screen while saving my geofence locations.

Key Considerations

How will your app handle data persistence?

Will create a content provider for saving the geofencing coordinates..

Describe any corner cases in the UX.

Don't think this situation might arise as of now.

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

Will surely use these:
1. `com.android.support:design:`
2. `com.android.support:appcompat-v7:`
3. `Com.google.android.gms:play-services:` `(May need)`
4. `Com.squareup.picasso:picasso:` `(For showing images)`
5. `Com.android.support:cardview-v7:` `(Card view structure in list)`

```
6.  com.github.Aritra1704:UtilitiesJitPackLib: (My libraries for common uses)
7.  com.github.Aritra1704:LocationFinder: (Finding location for weather updates)
8.  com.github.Aritra1704:CustomAlerts: (Custom dialogs popups if required)
```
9. May need some more for designing purposes.

Describe how you will implement Google Play Services.

Uses of Google APIs:
- For location updates in the form of notifications every time the user reaches their target location.
- GeoFence and ActivityRecognition.

Next Steps: Required Tasks

Task 1: Project Setup

First need to gather all data source regarding this project. Will checkout the Google APIs documentation and working procedures.

Task 2: Implement UI for Each Activity and Fragment

List the subtasks. For example:
- Build UI for MainActivity and detail activity
- Integrate Location Services API calls and saving the data in local database.
- Implement Geofencing api for creating virtual fences.
- Implement Activity Recognition API

Task 3: Data optimization and reusability

Subtasks:
- Optimize all data and code reusability for similar modules. Create single screen for all possible same data paths with all possibilities of error handling.
- All the content provider data insertion, updation, deletion has to happen in Asynctask Loader.
- All the background data fetching work has to be done in IntentService.
- All the data will be inserted and maintained in the content provider so that user can check it out even when he is in offline mode.

Task 4: Support multiple Android versions.

Support code for multiple versions of Android.
- Permission handling for devices above Marshmallow.
- Support for devices atleast upto Jellybean.

Task 5: Final testing

Final testing procedures for all modules, orientation changes

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