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Submission Instructions

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GitHub Username: ShaunNeubert

Watch My Tracks

Description

Want to keep track of where you've been, or let someone else know where you are? *Watch My Tracks* will record your location at a pre-defined interval and optionally send it via SMS to one of your contacts automatically. View your history and visualize it on Google Maps.

Intended User

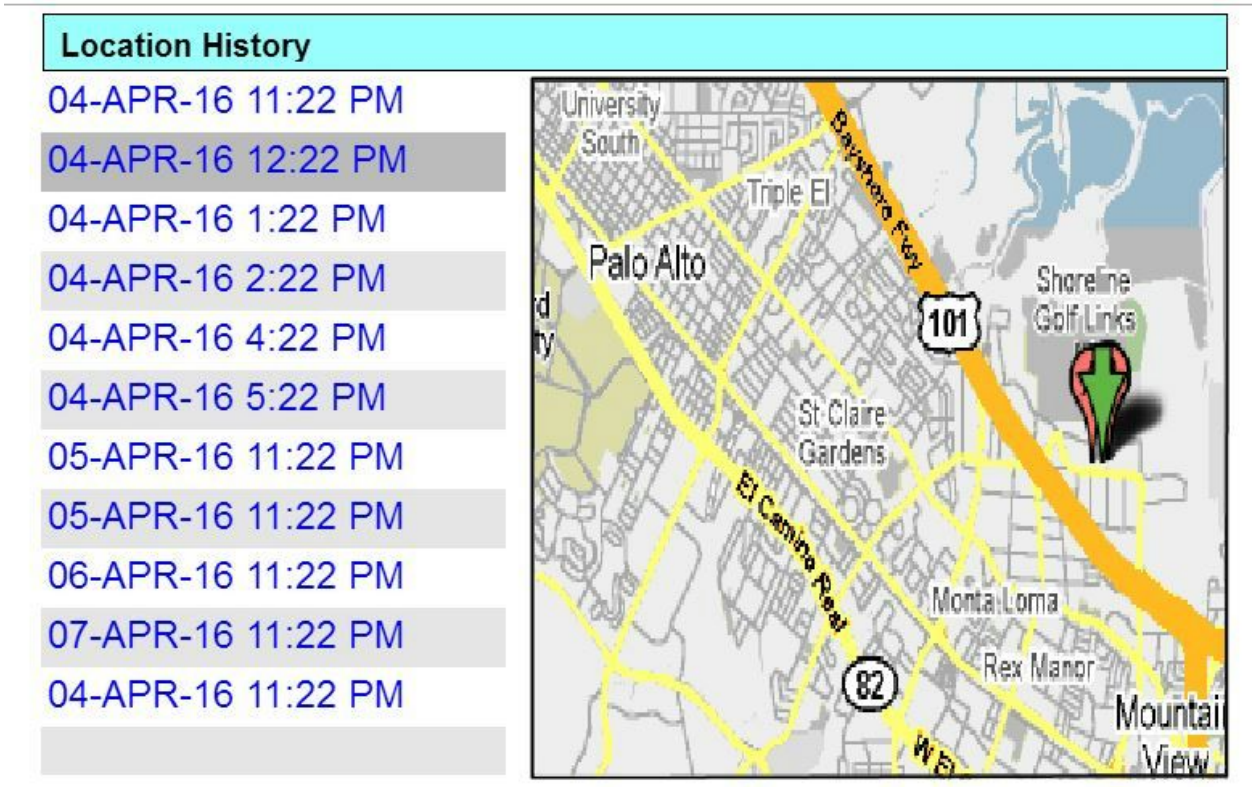
This app is mostly for families to keep track of each other (or keeping an eye on your teenage kids), but can also be useful for anyone waiting to meet you by showing them your travel progress.

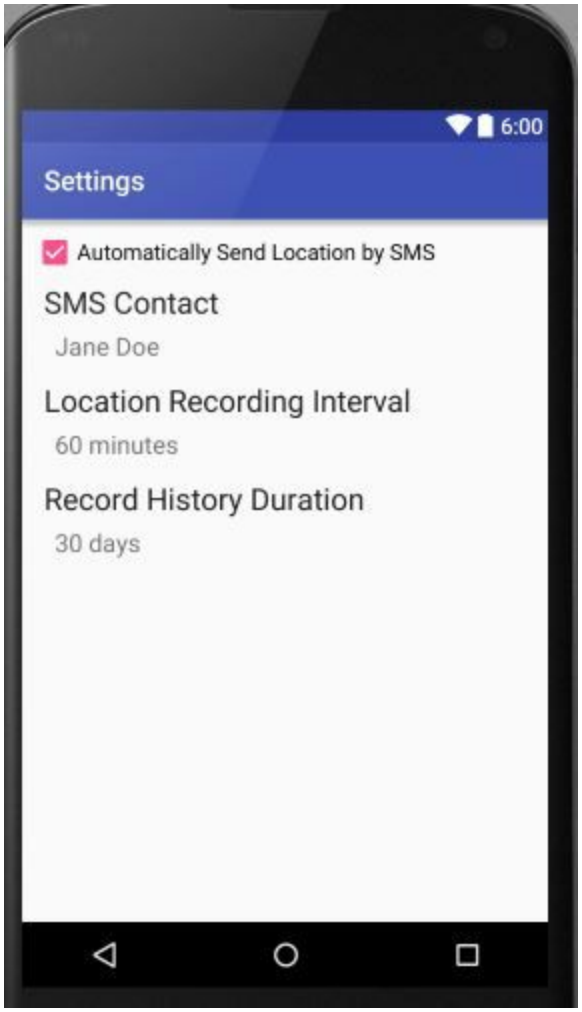
Features

- Automatically looks up GPS location and records it in a database with a time stamp.
- Automatically sends a map link to a designated contact, if enabled.
- Lets you review your past locations on Google Maps
- Lets you share your current location with others manually
- Purges data older than a set interval automatically

User Interface Mocks

Screen 1 - Main interface activity for tablet. Will be two fragment in separate activities on phone.





Screen 2

Settings screen for app.

Screen 3

Lock screen widget, lets the user mark/send their location on demand.

Add as many screens as you need to portray your app's UI flow.

Key Considerations

How will your app handle data persistence?

Content provider on top of Sqlite, and a bit of shared preferences.

Describe any corner cases in the UX.

I'm not currently aware of any.

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

Play services for location and maps, a content provider library wrapping a more current version of Sqlite, Picasso for some image drawing.

Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and decompose them into tangible technical tasks that you can complete incrementally until you have a finished app.

Task 1: Project Setup

Write out the steps you will take to setup and/or configure this project. See previous implementation guides for an example.

You may want to list the subtasks. For example:

- Design Database
- Import database library
- Set up content provider helper library and help generate content provider classes
- Add appropriate permissions for location, SMS services, access contacts, and lock screen widget
- Add broadcast receiver for alarm

Task 2: Implement UI for Each Activity and Fragment

- Design fragment to list historic locations
- Design fragment to display map of selected location
- Write main activity layout for tablet and phone (two pane for tablet)
- Write settings activity
- Make layout for widget

Task 3: Other tasks

Location Services

- Write routine to find current location
- Store location in database via content provider
- Write routine to purge history older than preference settings
- Write Loader for location history data.

SMS Notification

- See if user wishes to notify contact automatically
- Send last location via SMS

Alarm Services

- Set up alarm for automatic locating
- Set up broadcast receiver to handle alarm

Settings Activity

- Add routine to select a contact from personal contacts for SMS notification
- Write code to access different settings from shared preferences.
- Add ability to select time intervals for automatic locating
- Add ability to select amount of days to keep in history

Lock Screen Widget

- Write code to implement remote view and send message to broadcast receiver, as well as reset the alarm.

Add as many tasks as you need to complete your app.

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