Risk Mitigation

1. Our application will require Location services to run in the background and detect when the user is within a certain distance from a location.

*Plan for mitigation:* We will all research how to access the location services for an Android application and report what we learned in the meeting that will be held in two weeks.

**Update:** We decided to use geofencing. Documentation for it is found here: <https://developer.android.com/training/location/geofencing> According to that documentation, geofencing is “Geofencing combines awareness of the user's current location with awareness of the user's proximity to locations that may be of interest.” This is exactly the sort of thing we need for location services.

1. Our application will require communicating with google maps app by getting the directions to the desired location.

*Plan for mitigation:* Kristina will research how to connect/communicate with Google maps to get the directions to the desired location and report in the next week’s meeting.

**Update:** We found that we could communicate with Google maps to get directions to the location by using Intent. Here is the documentation: <https://developers.google.com/maps/documentation/urls/android-intents> We will keep a list of the desired locations in the database; the app will interact with the database to fetch the closest location.

1. Our application will require the ability to open a system notification to make the user aware of location proximity.

*Plan for mitigation:* Chase will research sending notifications in Google and Stack Exchange and will report in next week’s meeting.

**Update:** Chase found documentation on the Android Developer Website. It is here: <https://developer.android.com/guide/topics/ui/notifiers/notifications>. We would have to add the support library in the build.gradle. There are functions that we can use to set the content of the notification and the channel using functions found in the notification API.

1. Our application will require the use of local storage to store tasks and addresses.

*Plan for mitigation:* David will research data storage using user system memory and report in one week.

**Update:** David found documentation on the Android Developer Website. It is here: <https://developer.android.com/training/data-storage/sqlite> This will allow users to store the tasks and its necessary information together in a logical format

1. Our application might require access to user contact list.

*Plan for mitigation:* Kristina will do the research on how to access the user’s contact list (the ability to connect the contact to the task and then display it as the task is being completed). She will report on her research in three weeks.

1. Our application might require the use of a microphone to record voice for notification of proximity. The requirement for this is to save a voice recording that can be played at notification time.

*Plan for mitigation:* Storage of audio will already be done in step 4. If time permits, Chase has a Galaxy Tablet to try out the microphone feature. He will research using a microphone for recording audio files and saving to the local data storage. He will report his findings at the meeting held in 3 weeks.

1. Our application might use a *Vtiger* Rest API to access data from the customer relationship management software.

*Plan for mitigation:* If time permits, David will research how to communication with Vtiger for syncing of customer information and tasks and will report in three weeks.