## Exercise 10.1: Make the Music Player Location Aware (MAD Music Player, optional)

Implement requirement 3 for your music player (from exercise 5.4):

1. Extend your music player to always display the current location and its address.
2. A selected song should only be valid within a certain radius (f.e. 1000 meters) from the location where it was selected:



If the user moves out of the circle belonging to a song selection, music should stop and the song info not be shown. If the user enters a circle the corresponding song selection should be shown.

**Notes:**

* You can get the distance between two Location objects using the method Location.distanceTo() (see <https://developer.android.com/reference/android/location/Location.html)>
* Use the APIs from the lecture.

Alternatively, you could try to use *geofences* – an advanced topic to set events once you enter or leave an area: <https://developer.android.com/training/location/geofencing.html>