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Mobile POI Guide

A tour guide with offline maps, POIs and explanations
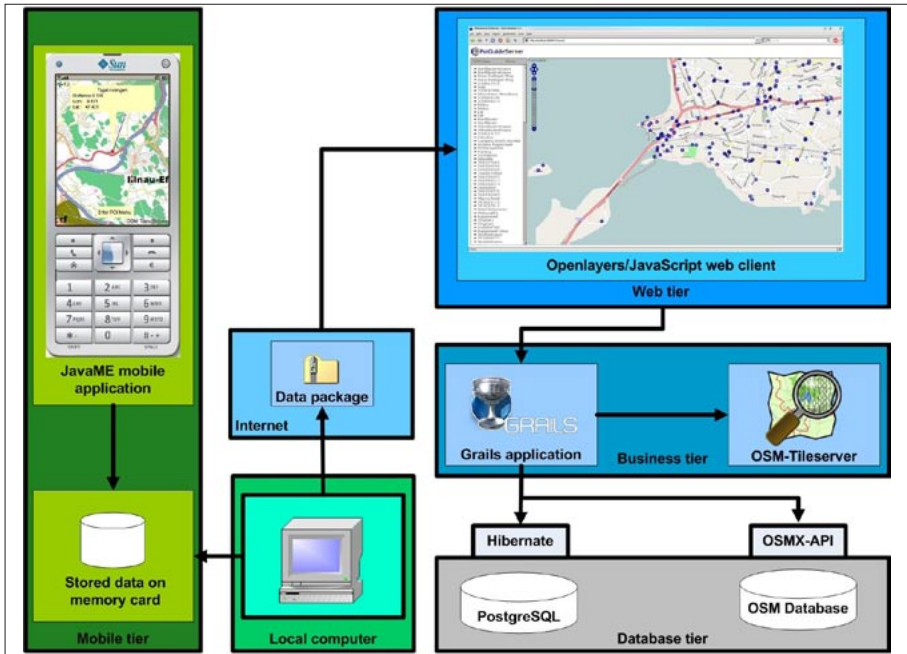
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Task: Finding a point of interest in a foreign region is often difficult. As a tourist you rely heavily on the quality of the guide you are using. Often these guides are created, licensed and sold by a single party. Many of these guides are also legally restricted. Updating or adding information can be troublesome. To avoid such limitations, this project aims to create a free-to-use mobile/server solution which allows a community to author and share guide information in a collaborative way.

Objectives: The key objective of this thesis was to create a mobile guide application, based on open source software, which is capable of using such information and presenting it to the user in a convenient way. Using a map and markers, as well as a position (GPS) based notification service; the user should be made aware of points of interest in his vicinity. If interested, additional information should be presented to the user. Making use of the fact that most of today's mobiles support multimedia, it would also be desirable to enhance this POI information with audio files or images. Another key objective was to be able to download such data before a trip to use it on the go, avoiding expensive downloads, and to guarantee

POIGuide system overview

that the service also works in regions without internet access. For that purpose, a web application should also be developed for the mobile client, which allows interested users to create and download packages containing all necessary information (map, media and information).

Solution: A Java ME application was developed for the mobile client, to support a broad range of devices. The web application was created using the Grails framework. As data source for the guide information, OpenStreetMap was used, a project which aims to provide free map data. For more information see http://wiki.hsr.ch/StefanKeller/wiki.cgi?MobilePOIGuide