

Application Development for Mobile and Ubiquitous Computing

CarSurfing

Second Presentation

Group Number 7

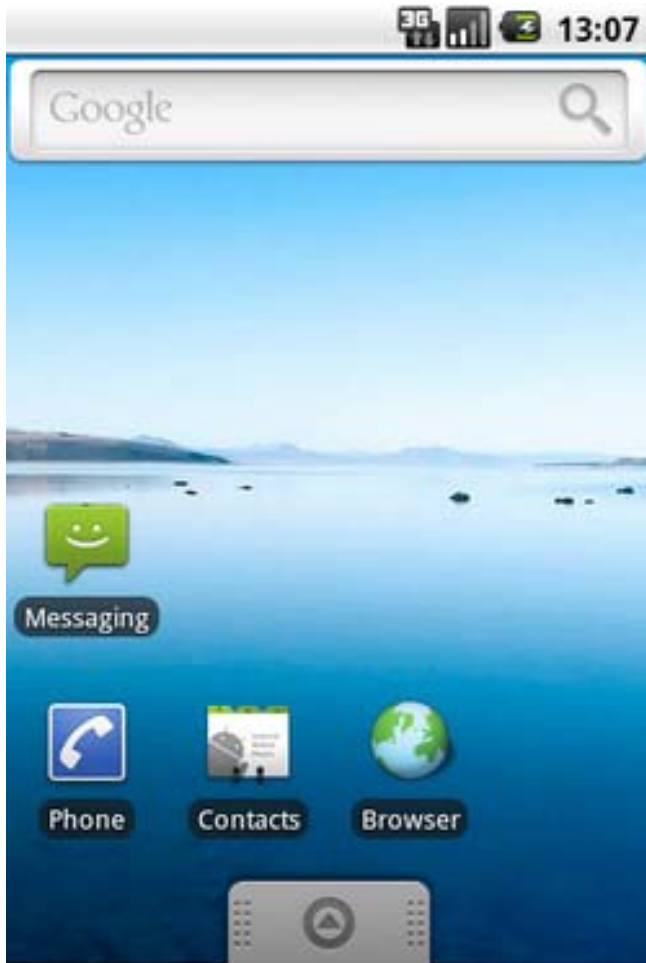
Team: Franz Lehmann, Samuel Rizerio



Promiss:

- Help people to find **hitchhikers** or **car drivers** also road vehicle to travel a distance that may either be short or long.

ANDROID



History

- Initially developed by Android Inc., a firm later purchased by Google, and lately by the Open Handset Alliance.
- The Open Handset Alliance (OHA) is a business alliance of 50 firms including Google, HTC, Intel, Motorola, Qualcomm, Texas Instruments, Samsung, LG, T-Mobile, NVidia, and Wind River Systems to develop open standards for mobile devices.
- Managed code in the Java language, controlling the device via Google-developed Java libraries.
- In October, 2009, Gartner Inc. predicted that by 2012, Android would become the world's second most popular smartphone platform, behind only the Symbian OS which powers Nokia phones very popular in the world.

Android 1.5 (Cupcake) ▪



On *30 April 2009*, the official 1.5 (Cupcake) update for Android was released. Included in the update are:

- Ability to record and watch videos with the camcorder mode;
- Uploading videos to YouTube and pictures to Picasa directly from the phone;
- A new soft keyboard with an "Autocomplete" feature;
- Bluetooth A2DP support (which in turn broke Bluetooth connectivity with many popular cars and headsets);
- Ability to automatically connect to a Bluetooth headset within a certain distance;
- New widgets and folders that can populate the desktop;
- Animations between screens;
- Expanded ability of Copy and paste to include web pages.

Android 1.6 (Donut)



- On *15 September 2009*, the 1.6 (Donut) SDK was released. Included in the update are:
 - An improved Android Market experience;
 - An integrated camera, camcorder, and gallery interface;
 - Gallery now enables users to select multiple photos for deletion;
 - Updated Technology support for CDMA/EVDO, 802.1x VPN, Gestures, and a Text-to-speech engine
 - Speed improvements for searching, the camera.

Android 2.0 (Eclair)



- On *26 October 2009*, the 2.0 (Eclair) SDK was released. Among the changes are:
 - Optimized hardware speed;
 - Support for more screen sizes and resolutions;
 - Revamped UI;
 - New browser UI and HTML5 support;
 - Better black/white ratio for backgrounds;
 - **Improved Google Maps 3.1.2;**
 - Microsoft Exchange support;
 - Built in flash support for Camera;
 - Digital Zoom;
 - Improved virtual keyboard;
 - Bluetooth 2.1.

android
developers

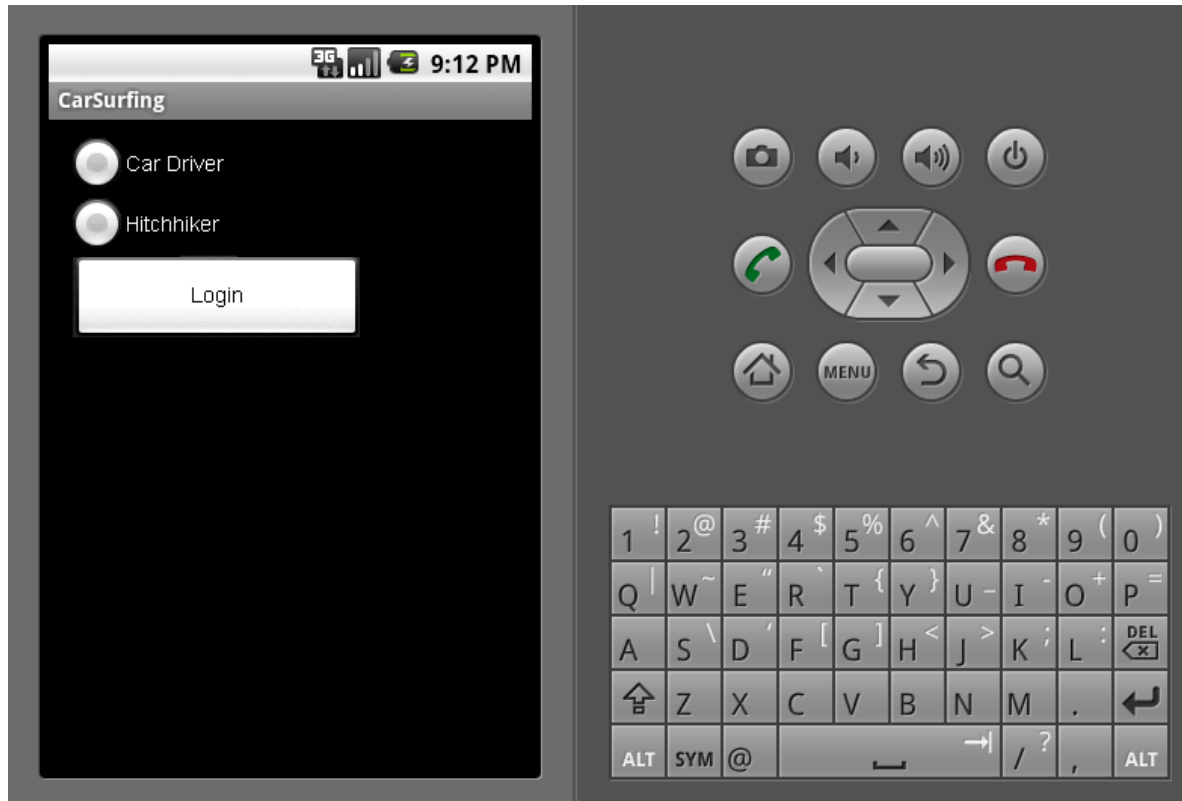


- The Android 2.0.1 API (6) platform delivers an updated version of the framework API. This identifier, called the "API Level", allows the system to correctly determine whether an application is compatible with the system, prior to installing the application.
- Android also provide an API to access the Google Maps. So with the help of the Google MAPs and the location APIs the application can show required places to the user on the MAP.
- The application can ask for periodic update of the device location. The application can also register a intent receiver for proximity alerts like when the device is entering and existing from an area of given longitude, latitude and radius.
- The Facebook APIs also works with the Android SDK.
- Integration with a data server using a web service protocol.

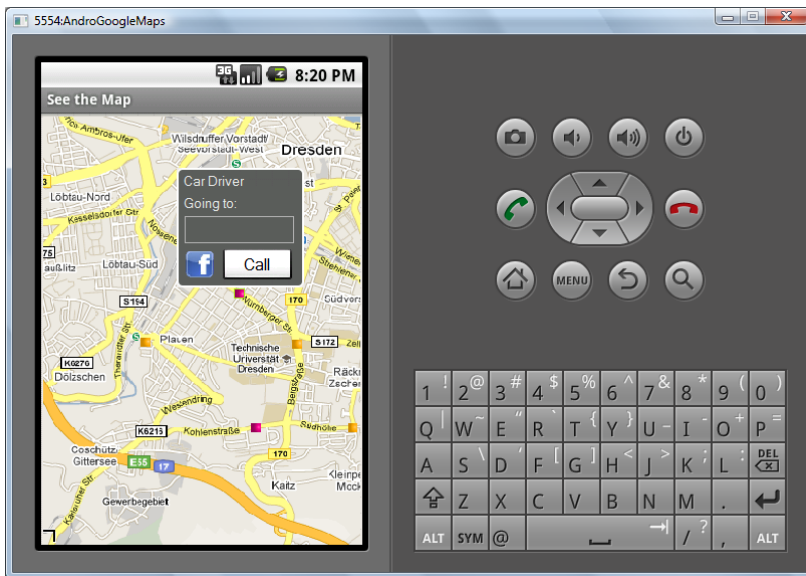


- Google Maps provides high-resolution satellite images for most urban areas.
- Like many other Google web applications, Google Maps uses JavaScript extensively.
- Google created the Google Maps API to allow developers to integrate Google Maps into their websites with their own data points. It is a free service, and currently does not contain ads, but Google states in their terms of use that they reserve the right to display ads in the future.
- Localization:
 - GPS-based services.
 - WLAN-based / WiFi-based services.
 - Cell transmitter-based services.

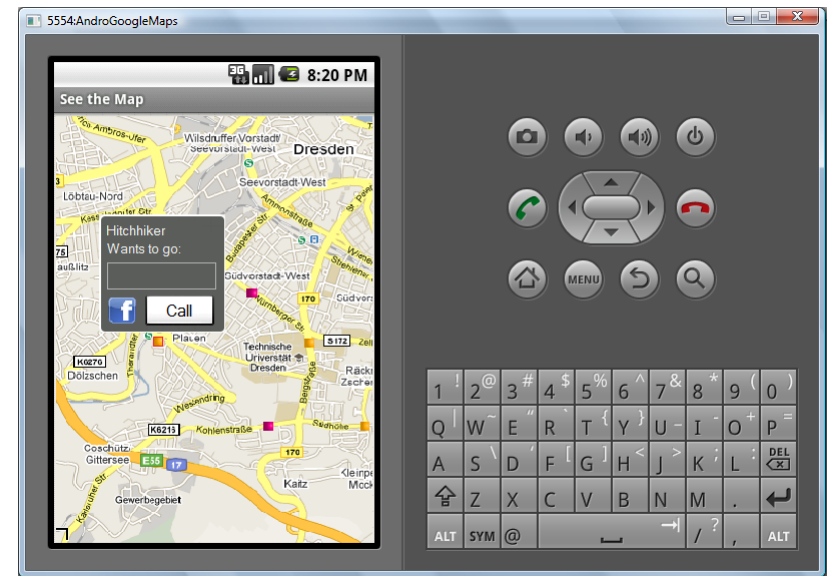




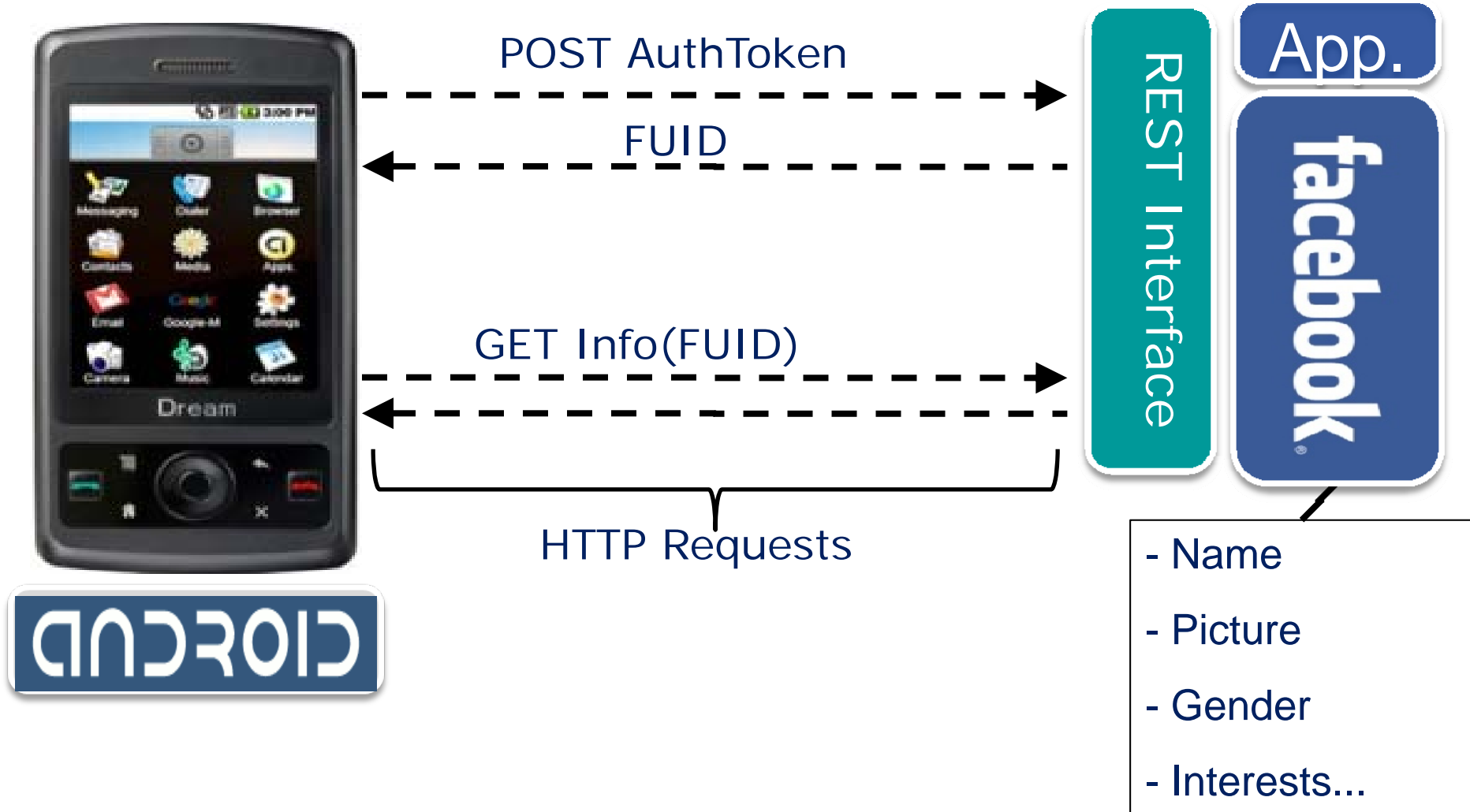
Two possibilities to login.

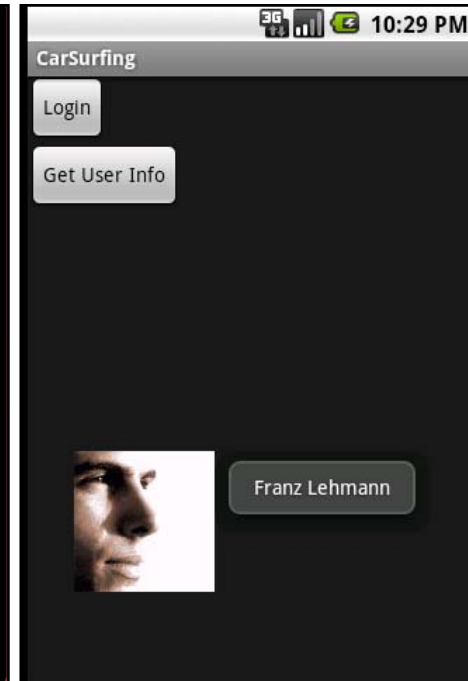
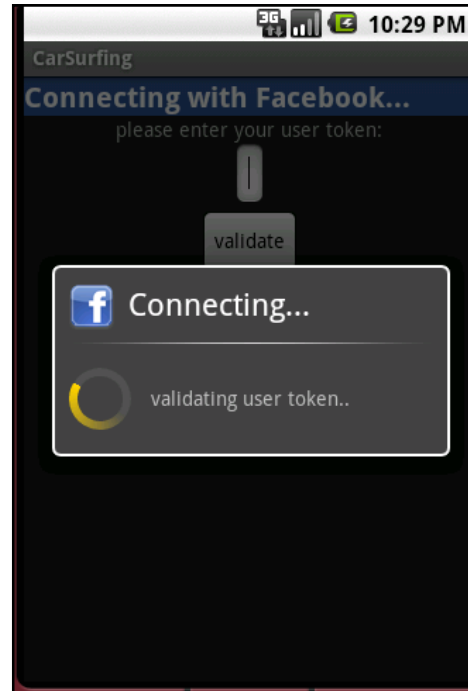
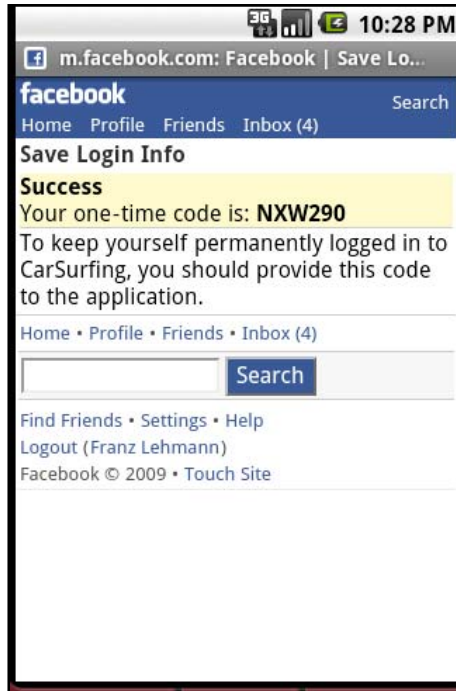
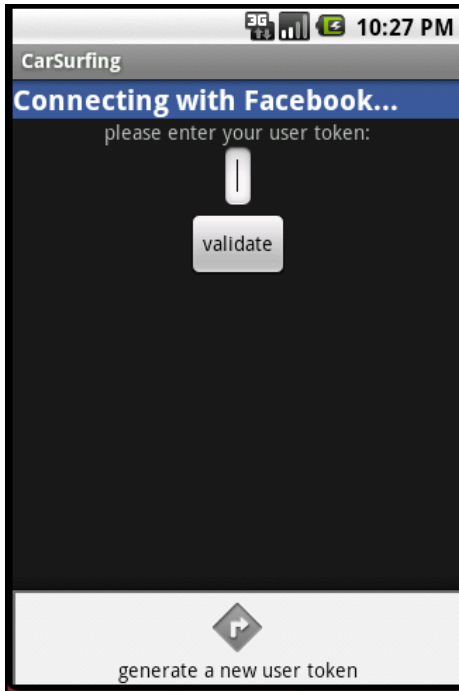


Being a Hitchhiker.



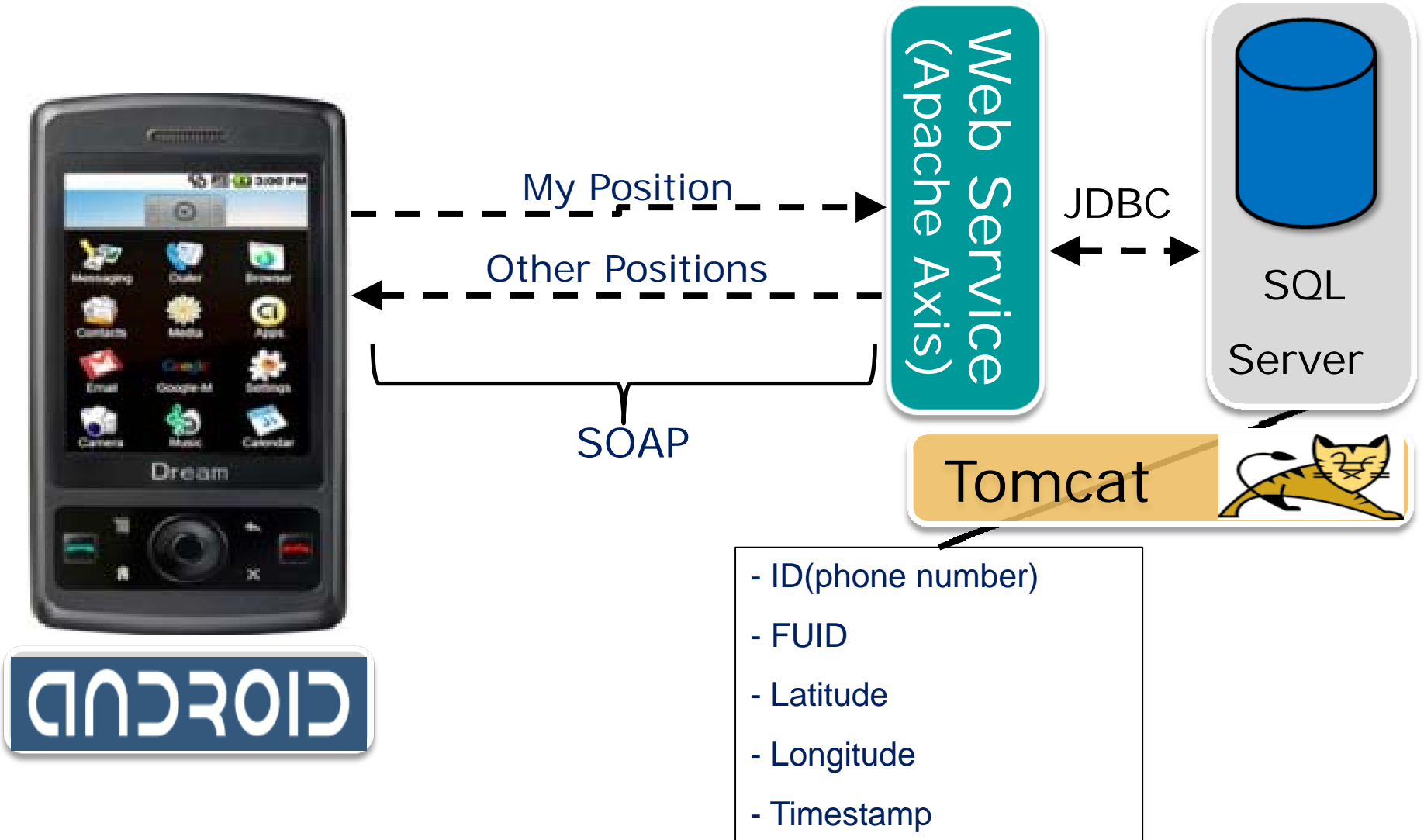
Being a vehicle driver.





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LoginProcedure (only once!)

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Information
Retrieval





CarSurfingServerCom

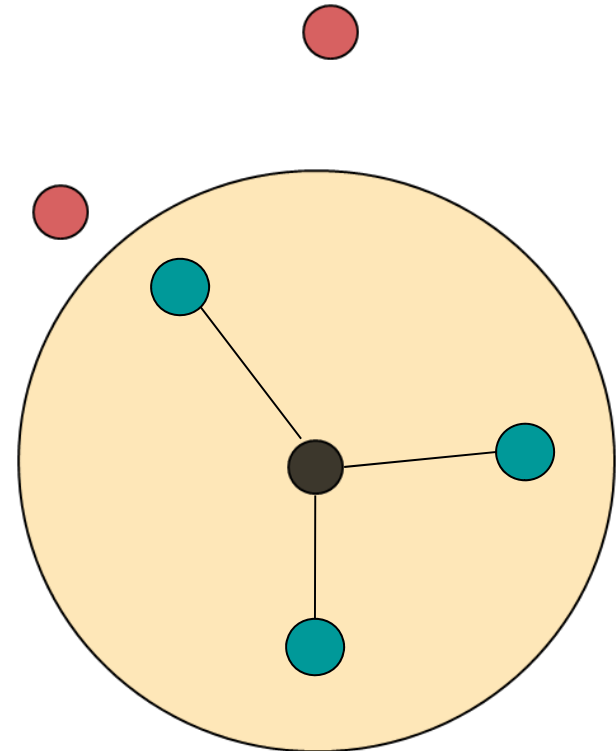
ID: 267858 Latitude: 63

FUID: 87632 Longitude: 867

Submit

```
[[{"id":0, "tuid":0, "latitude":63, "longitude":867},  
{id:12345, "tuid":372465, "latitude":105,  
longitude:200}, {"id":12346, "tuid":372465,  
latitude:100, "longitude":200}, {"id":12346,  
tuid:37246, "latitude":105, "longitude":200},
```

} JSON



Selection criteria:

- Distance (<50km)
- Timestamp (<10min)

- Improve the navigation on the map and the popup functions.
- Integration between the map view and the facebook interface.
- Apply the Data Server in the communication between users, fully integrated with facebook and the map view.

today	Second presentation
08.01.2010	First global prototype (merge parts)
22.01.2010	Final prototype (debugged)
29.01.2010	Final presentation

