



Application Development for Mobile and Ubiquitous Computing

Location based ATM search

Second Presentation

Group #11

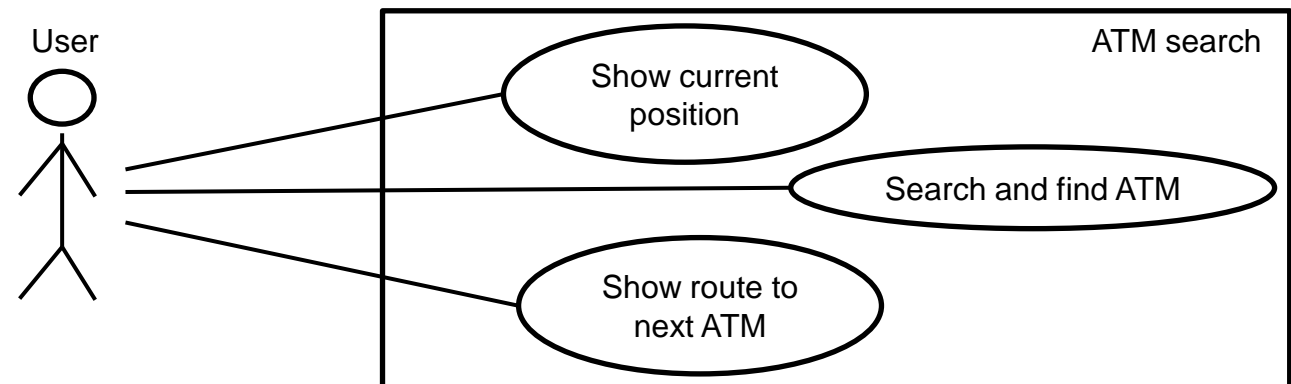
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Problem:

- Customer wants to draw out money
 - without handling charges, if possible
 - Customer has no idea where the next ATM is located
- Find the next ATM near your current position

Solution:

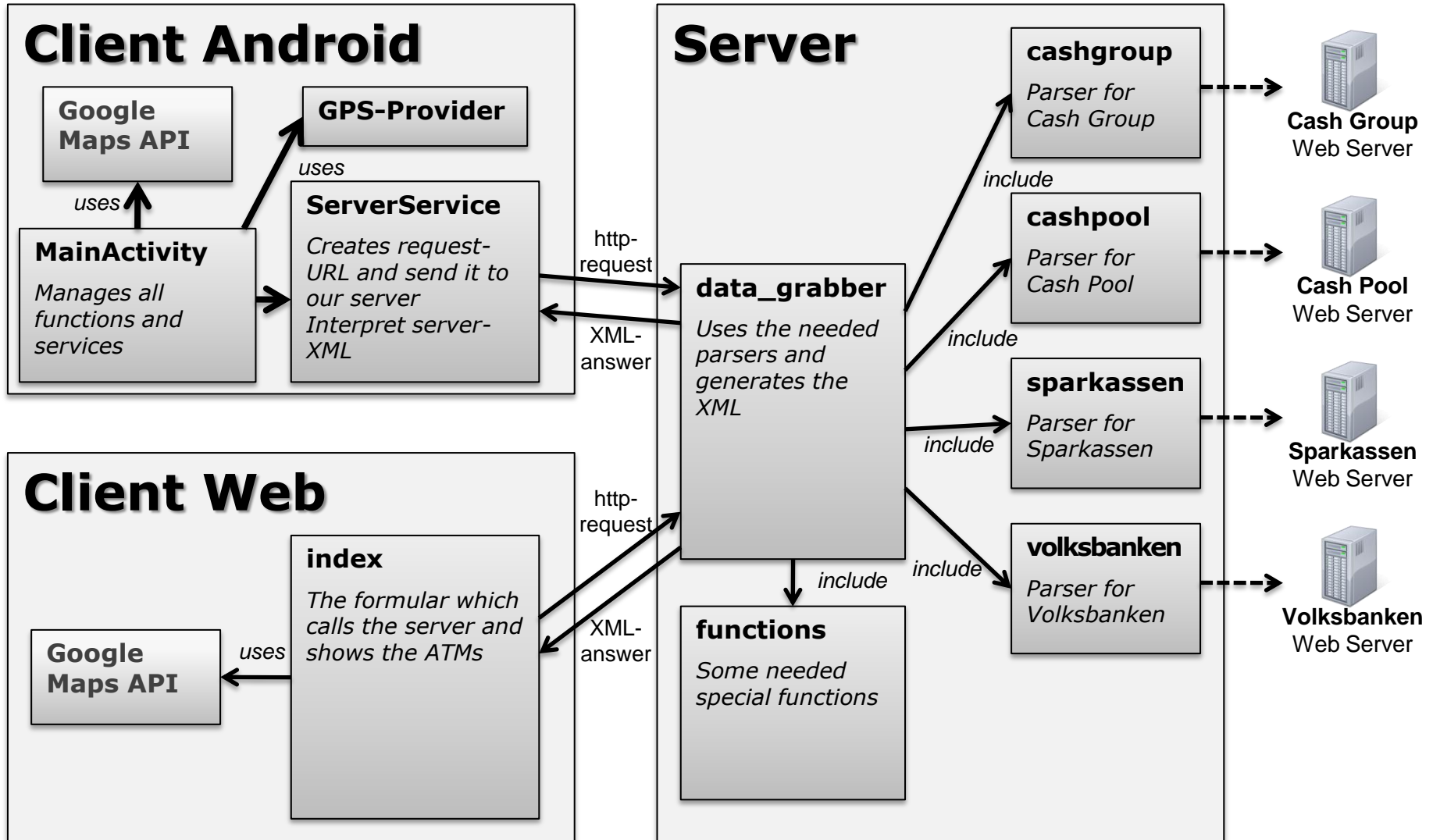
- Creating a mobile application which searches the next ATM based on the current user position



- Server-Side
 - PHP 5.3
 - simpleXML

- Web-Formular
 - PHP 5.3
 - Google Maps API – static maps

- Android-Client
 - Android 1.6 / Java
 - GPS for location based information
 - Google Maps API / Google Geocoding API



▪ Request

- Simple http-request via given URL:
.../data_grabber.php?ort=xx&str=xx&nr=xx&plz=xx&bank=xx
- ort: the city where to find ATMs
str: the current street
nr: the number where the user is on the street
plz: the zip-code of the city
bank: the atm-network (cg,cp,vb,sk,all)

▪ Answer

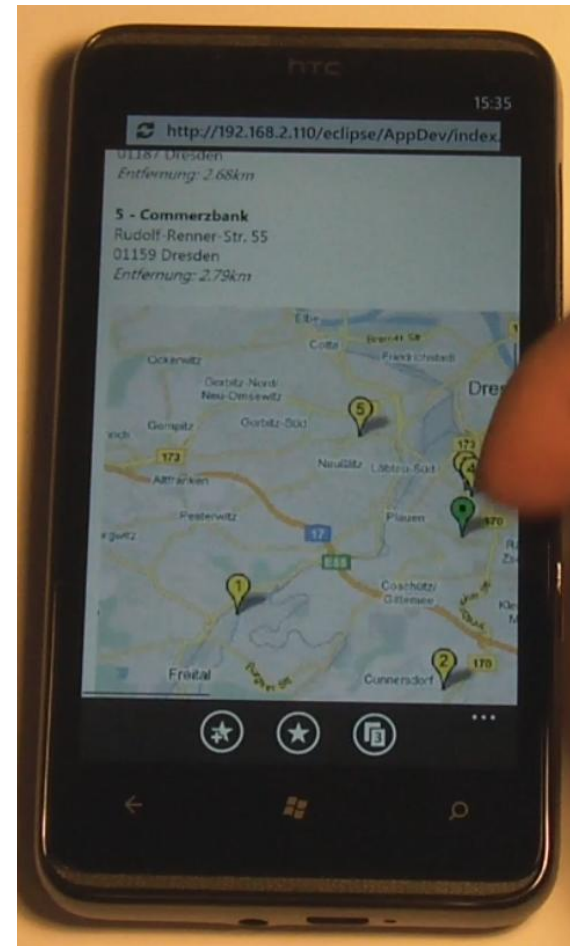
- `<?xml version="1.0" encoding="UTF-8" ?>`
- Structure:

<code><banken></code>	
<code><automat></code>	the ATMs
<code><name></code>	the name of the ATM
<code><plz></code>	the zip-code, where the ATM is
<code><ort></code>	the city, where the ATM is
<code><strasse></code>	the street, where the ATM is
<code><entfernung></code>	the distance to the ATM in km

- Customer Satisfaction Challenge
 - Usability
 - Small Screen Size
 - Always find a ATM

- Device Challenge
 - Heterogeneity of software
because we use client-server-architecture with defined communication rules

- Server
 - Volksbank-Parser has to be implemented
- Web Formular
 - fully implemented
 - Shows Map with the positions of the ATMs
 - For use with client without Android, for Example Windows Phone



- Implemented
 - Create server-request
 - Show ATM and own position on a map

- Currently not implemented
 - Show route to selected ATM
 - Final GUI

- Server-Side
 - Implement parser for Volksbank

- Web-Formular
 - Optimize for mobile Clients

- Android-Client
 - Create final GUI

- For everything:
 - Real-life test