TECHNISCHE UNIVERSITÄT DRESDEN

Department of Computer Science Institute for System Architecture, Chair for Computer Networks

Application Development for Mobile and Ubiquitous Computing

Seminar Task - MobileEatFind

Second Presentation

GroupNo. 10
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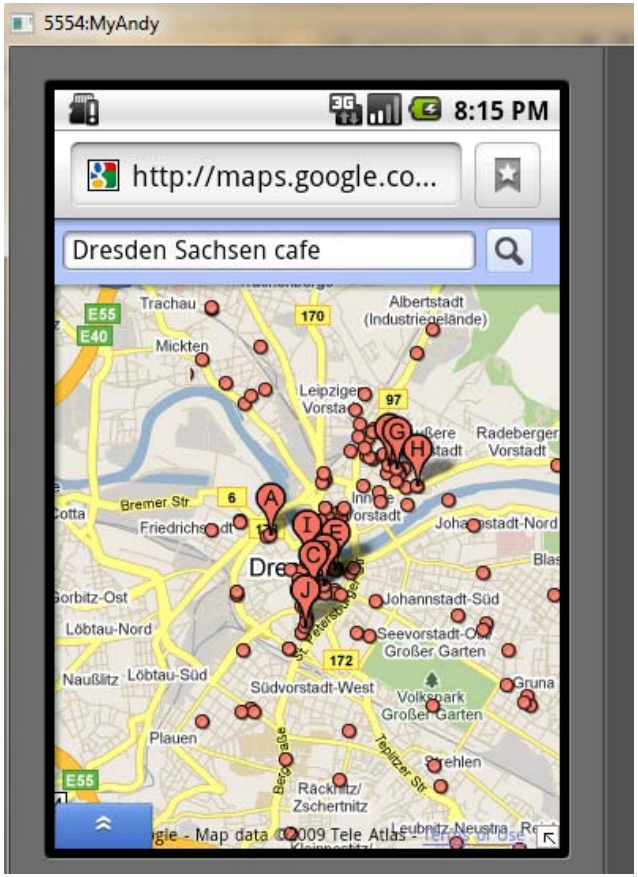
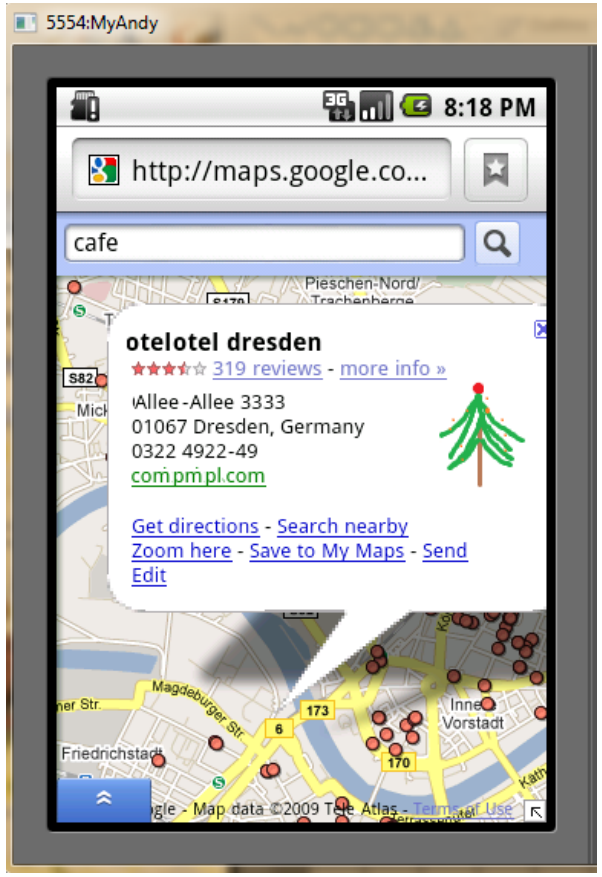
Application Scenario – to remind

- Historical city center with lots of cafes, restaurants, bars...
- Customer is thursty/hungry/tired/lasy and has no wish to enter any queues or check menus and prices „on-foot“
- Instead he has a mobile device with application capable to find all nearby locations on Google Maps,...
- ... check menus, check free tables amount
- And possibly show way to place

Application Scenario

- Someone can say – “But we have Google!”

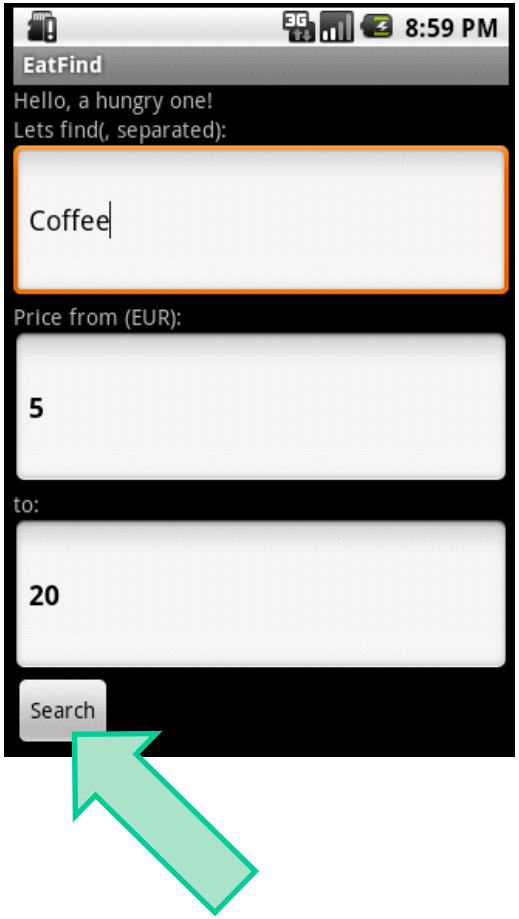


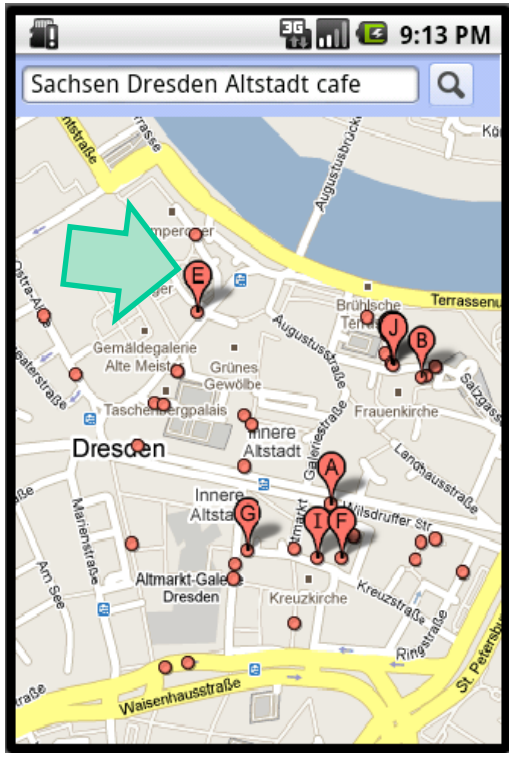


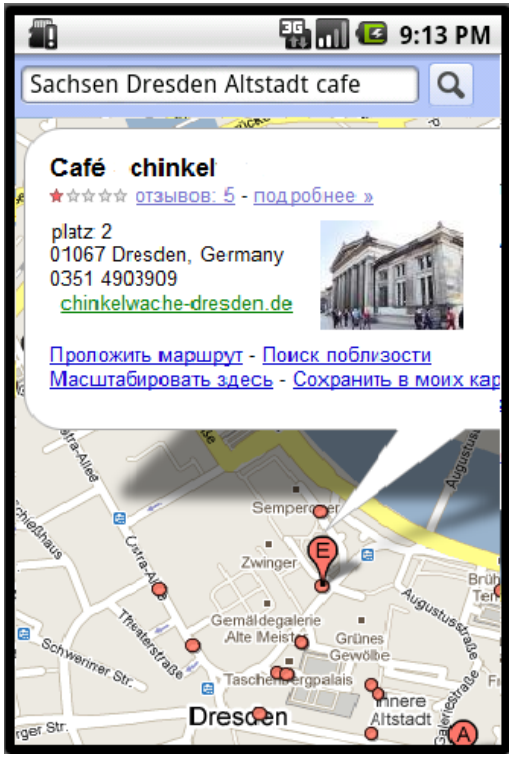
Application Scenario – refined

- What Google has:
  - Google Maps
  - Any business can be registered -> found
  - Customer reviews (try to read all though)
  - Link to business web site
- What is still missing -> couldn‘t be checked:
  - Prices
  - Required product availability
  - Free places amount

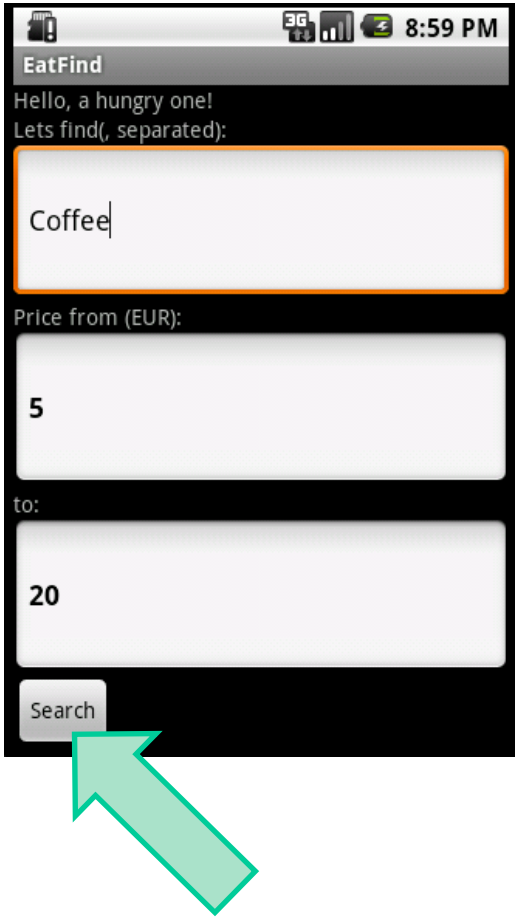
Application Scenario - GUI

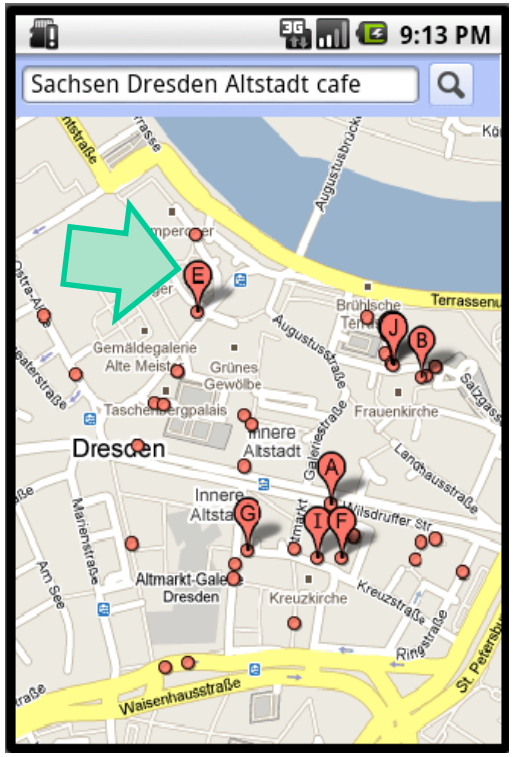


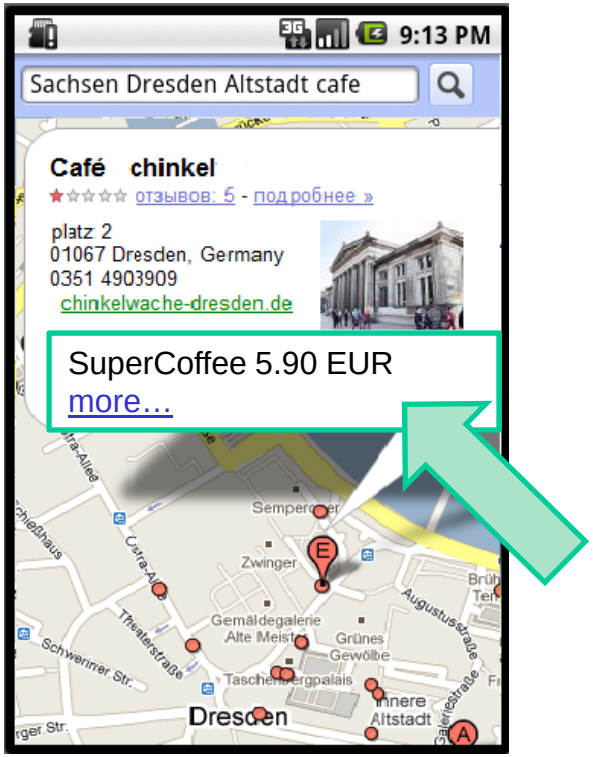




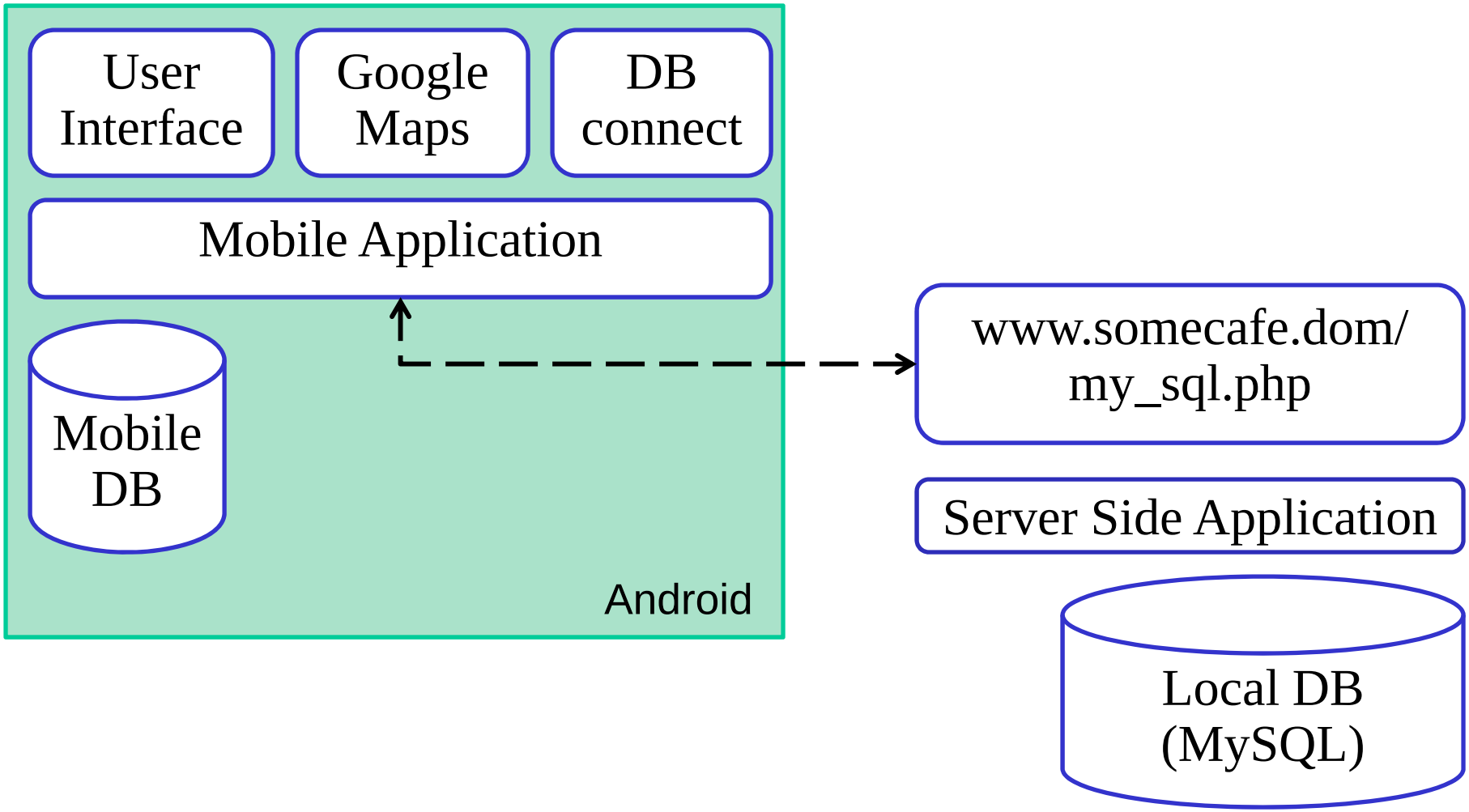
Application Scenario - GUI







Application Architecture



Application Workflow

1. User specifies item and prices “from-to”

2. User clicks on “Search”

```
geo:latitude,longitude
geo:latitude,longitude?z=zoom
geo:0,0?q=my+street+address
geo:0,0?q=business+near+city
```

3. Maps are opened
   - Location querying is used
   - Dresden is by default (for test reasons)
   - Prices are stored locally

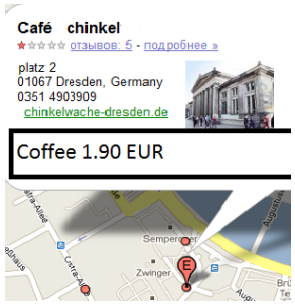
```
public int price_from = 5;
public int price_to = 20;
```

4. User chooses some pinpoint

```
... String item_specified = “coffee”;
String baseURL  =
http://coolcafe.com/mysql.php
String query = baseURL +
”?DB_column”+item_specified; …
```

```
<?php
$con =
mysql_connect
(HOST NAME,
USER NAME,
PASSWORD);
… ?>
```

4.1 Server of Local
- Has mysql.php
- Has MySQL DB



5. Pop-up with response appears

Technologies

- Android Platform
  - A mobile OS running on Linux kernel
  - We are using version 1.6
- Google Maps API
- MySQL database (server side)
  - Open source database software
- PHP-aware web server

Challenges

- Correct query construction
  - Not only „coffee“ could be searched for
- Intergrate result into Pop-ups
  - Or try other ways (e.g. return Items List)
- Way-finder
- Google Maps Querying works, but „currently under development“ (i.e. not fully supported)

Work plan 2010

- Further development of Android application
  - Query construction
  - Maps
- Web application (db_connect.php)
- Server side MySQL Database
  - Ready, but needs improvement
- Testing
- Final presentation on 29.01.2010