TECHNISCHE UNIVERSITÄT DRESDEN

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

Application Development for Mobile and Ubiquitous Computing

Seminar Task

Second Presentation

Group 12
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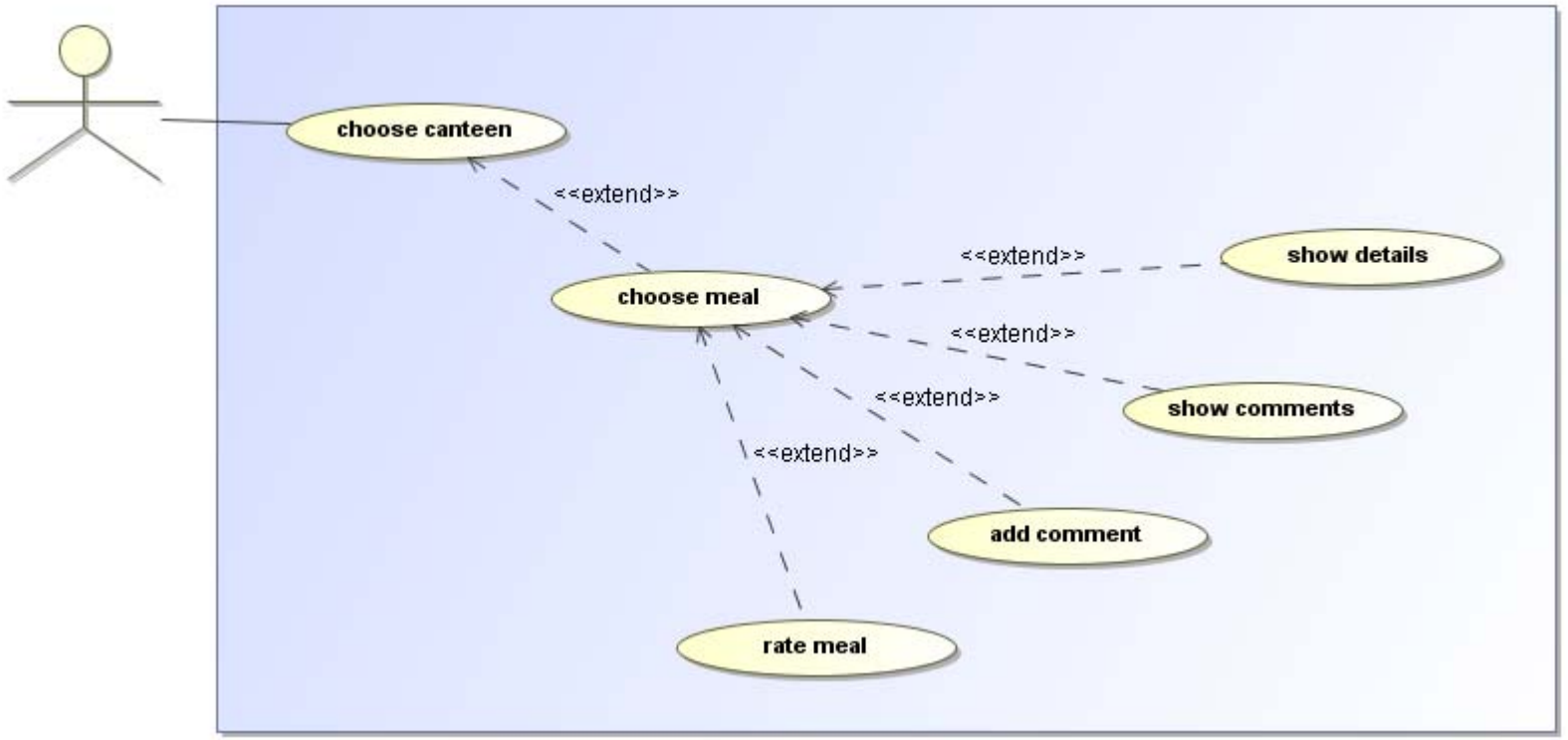
Outline

- Introduction / Application Scenario
- Use Case Diagram
- Mockups
- Technologies
- Challenges
- Work Plan

Application Scenario

- target group:
  - students thinking about having lunch at the refectory
  - research assistants using the refectory of our university
- questions:
  - Where should I go to have lunch?
  - Which meals should I avoid? Which ones are recommendable?
  - Whats about the price?
- our solution:
  - mobile application providing information about the meals at the refectories including ratings

Use Case Diagram



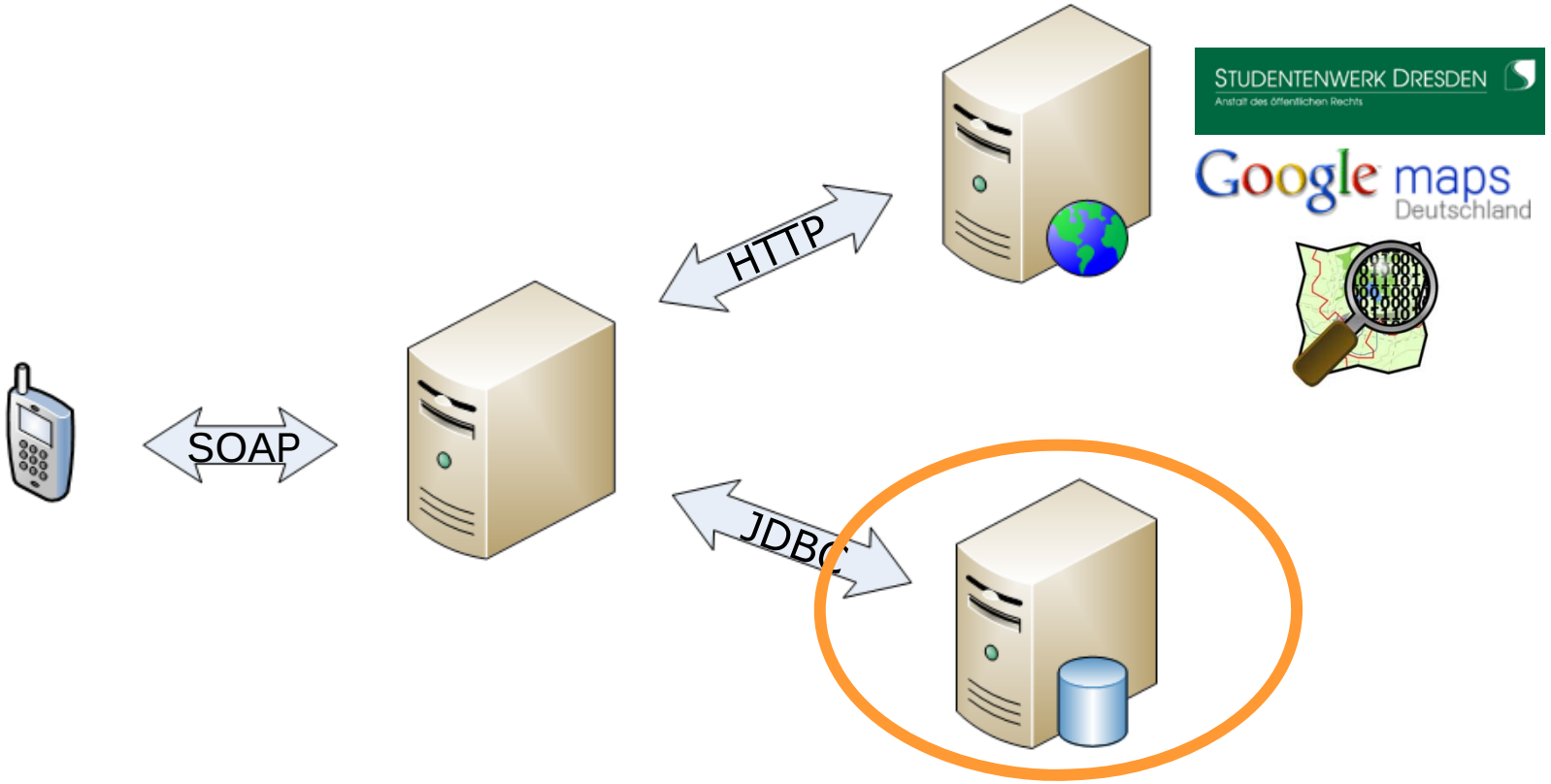
Mockups


Refectories
Neue Mensa
Bergstrae 51, 01069 Dresden
Alte Mensa
Mommsenstr. 13, 01069 Dr...
Mensa Reichenbachstrasse
Reichenbachstr. 1, 01069 D...
1
2 ABC
3 DEF
4 GHI
5 JKL
6 MNO
7 PQRS
8 TUV
9 WXYZ
* .
0
- +
SHIFT
SPACE


Bauerngulasch mit Sauerkraut u
Details
Comments
---|+++
Price for Students: 2.08
Exit
Enter
1
2 ABC
3 DEF
4 GHI
5 JKL
6 MNO
7 PQRS
8 TUV
9 WXYZ
* .
0
- +
SHIFT
SPACE


Bauerngulasch mit Sauerkraut
Details
Comments
1. Back to Menu
2. Back to Refectories
3. Write a Comment
4. Rate the Meal
5. Back
---|+++
Cancel
Select
1
2 ABC
3 DEF
4 GHI
5 JKL
6 MNO
7 PQRS
8 TUV
9 WXYZ
* .
0
- +
SHIFT
SPACE

Technologies

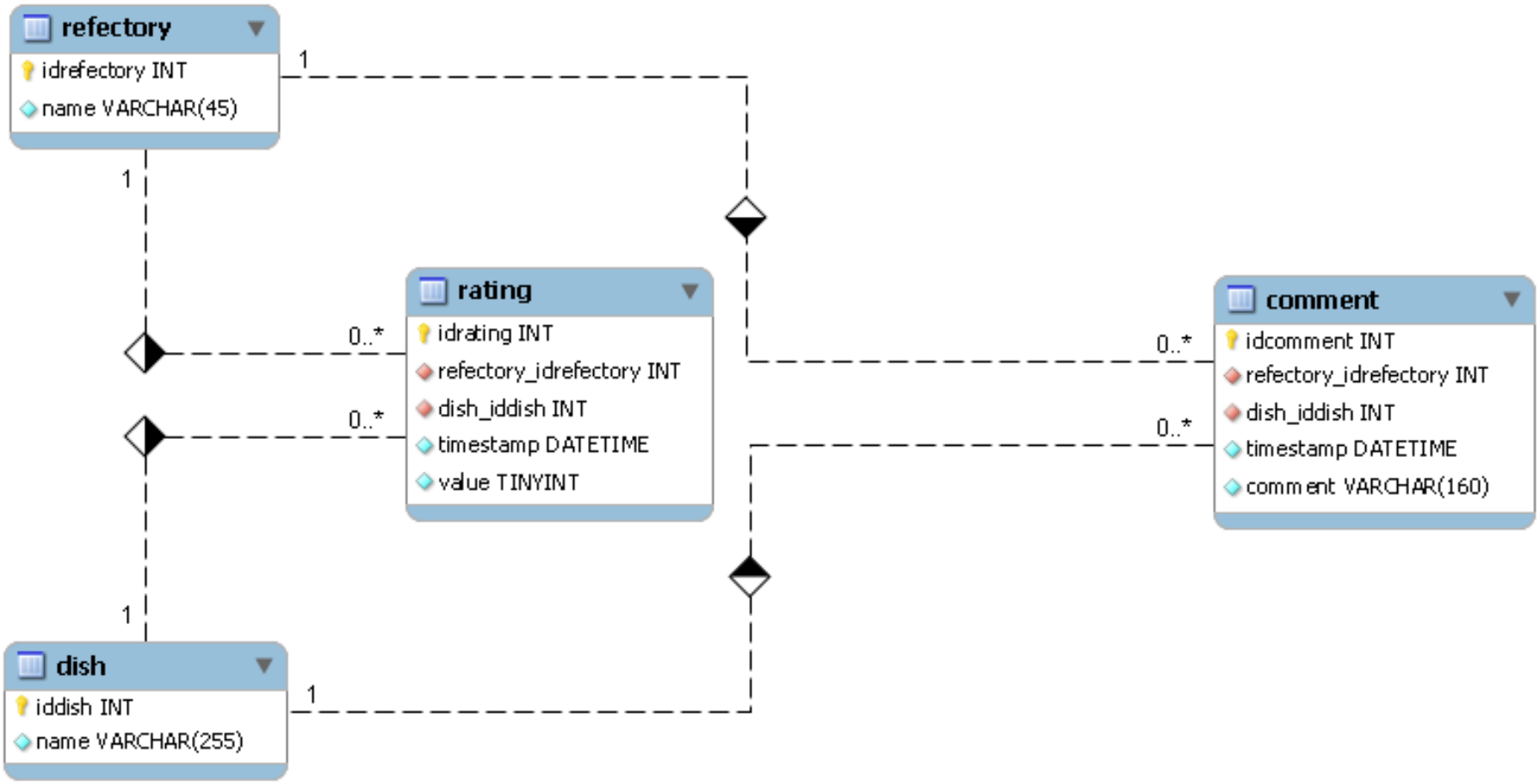


Java ME with LWUIT 1.3

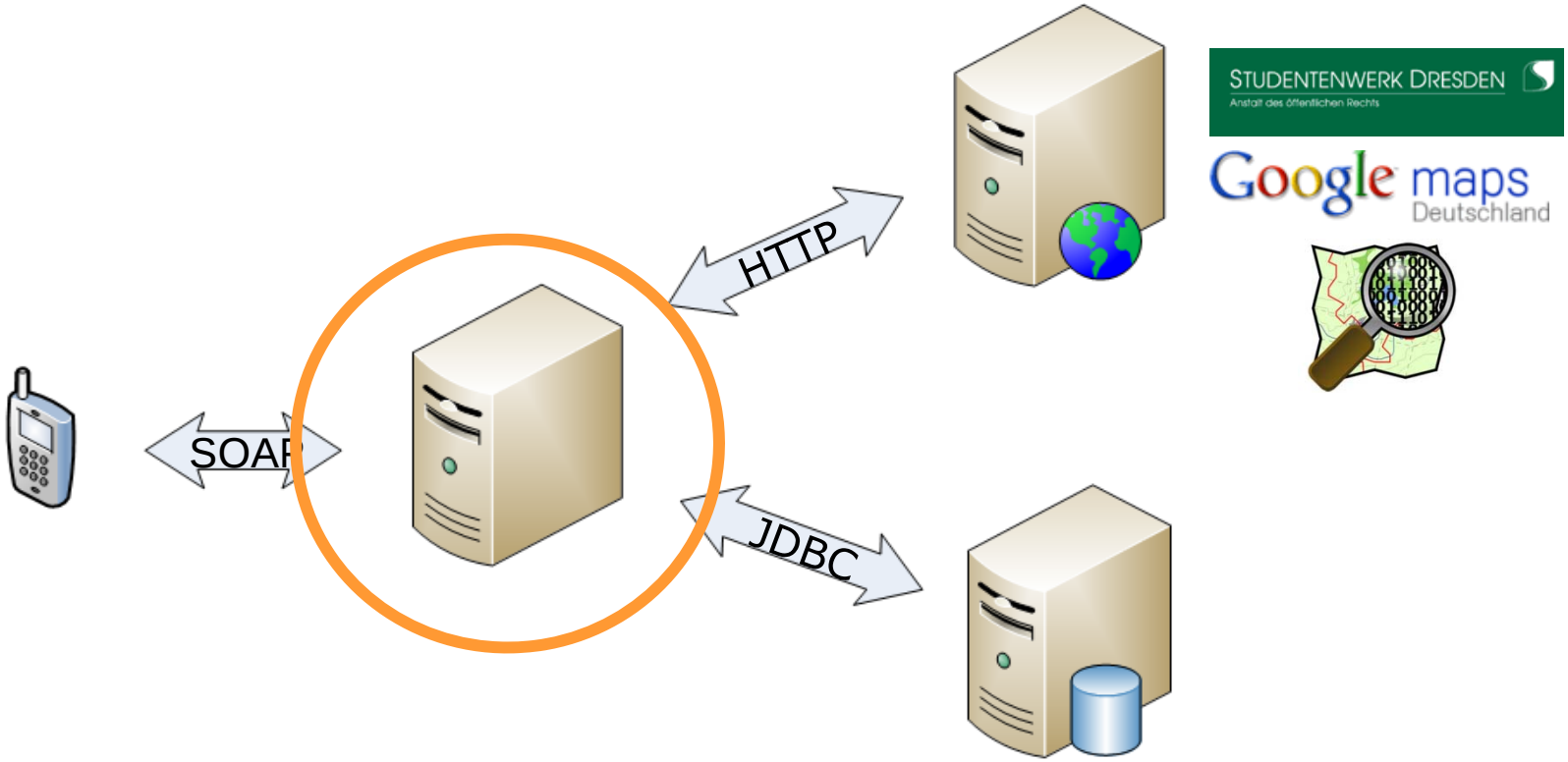
Apache Tomcat 6.0.18 with JAX-WS Servlet

MySQL 5.1.37

Database Schema



Technologies

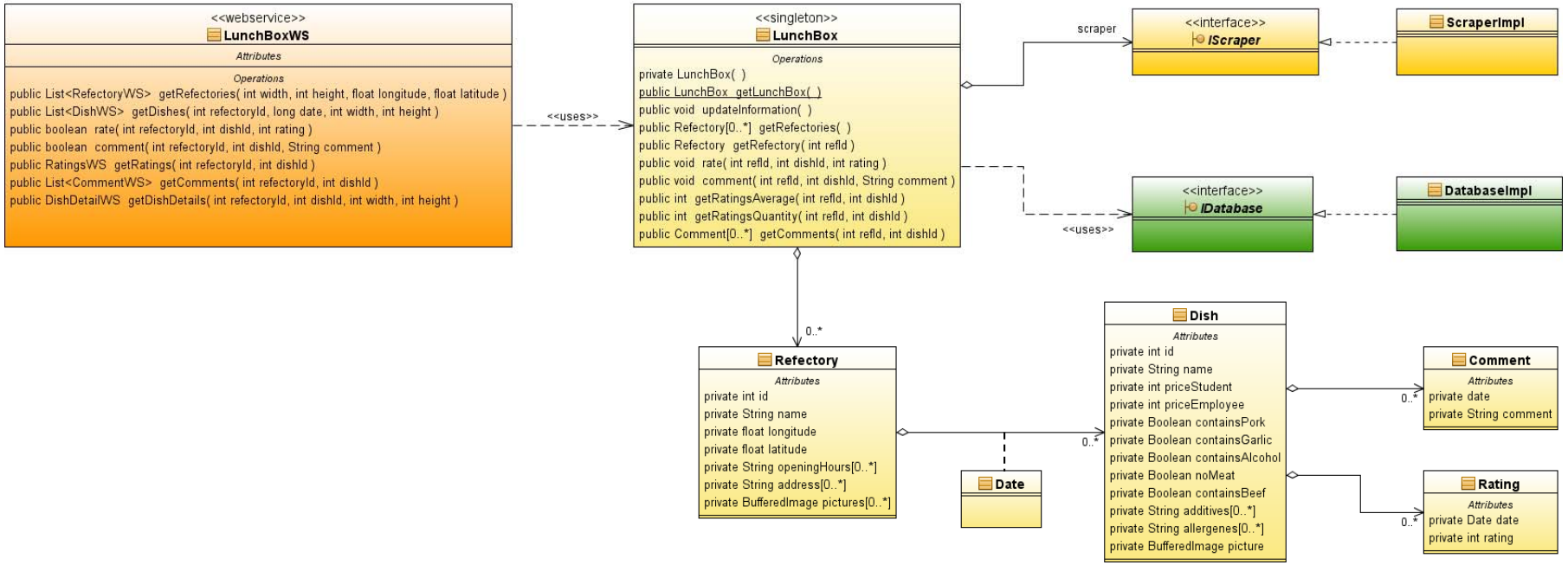


Java ME with LWUIT 1.2.1

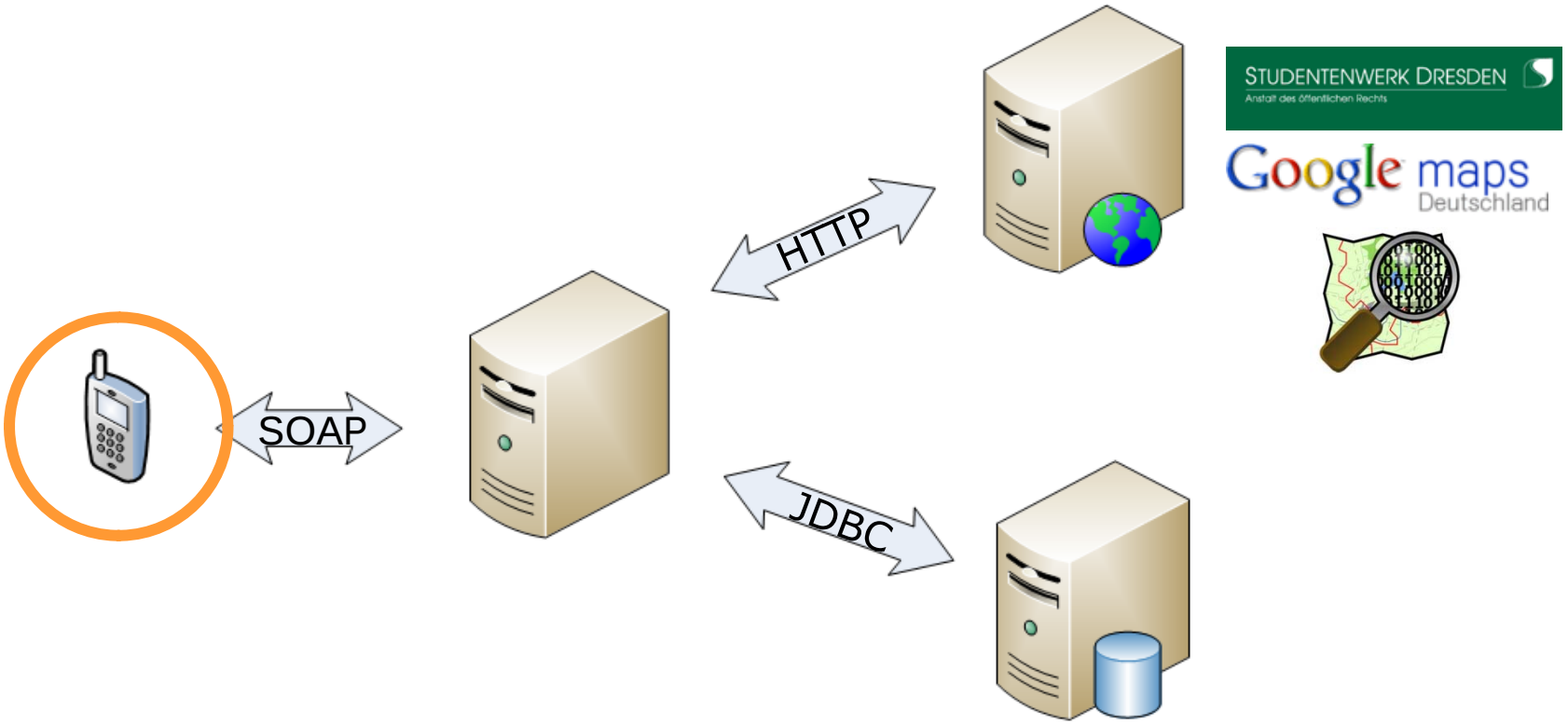
Apache Tomcat 6.0.18 with JAX-WS Servlet

MySQL 5.1.37

Server Architecture



Technologies



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Screenshots of the Running Application

Challenges (1)

data scraping

- „Studentenwerk“ doesn‘t provide any API

→ solved by means of *Cobra Java HTML Parser* and *HtmlCleaner*

usability and customer satisfaction

- clear structured user interface e.g. filter for vegetarians

→ use of LWUIT

restricted device capabilites

- adaptation of images to the screen size (resolution)

→ adaptation by means of functions provided by the JAVA API at the server

Challenges (2)

heterogeneity

- usability at any devices supporting MIDP 2.0 and CLDC 1.1

→ no tests on different devices done yet

context awareness

- using location based information for calculating the distance to different refectories

→ distance calculation to the different refectories at the server by means of google maps API and YOURS

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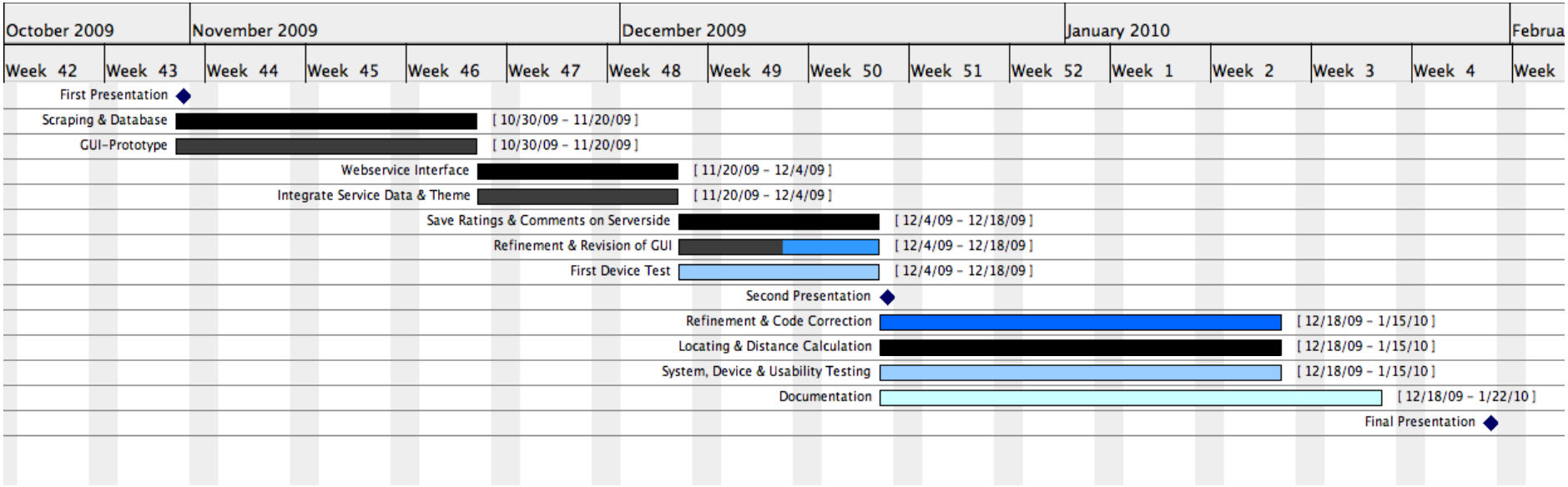
Work Plan



Thank you for your attention!