TECHNISCHE UNIVERSITÄT DRESDEN

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

Application Development for Mobile and Ubiquitous Computing

Seminar Task
First Presentation

GroupNo.3
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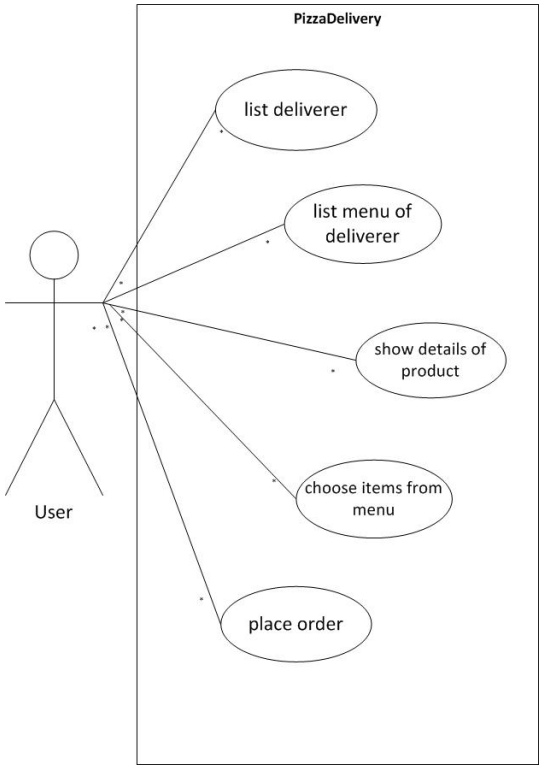
Gregor Weimann

Application Scenario

- order Pizza from different delivery services
- customer can choose delivery service that fits him
- can order from the Menu of the delivery service
- ability to plate his own pizza in GUI
- delivery service can send pizza to GPS coordinates or at predefined location
- system shows time till pizza should be delivered
- maybe mobile payment

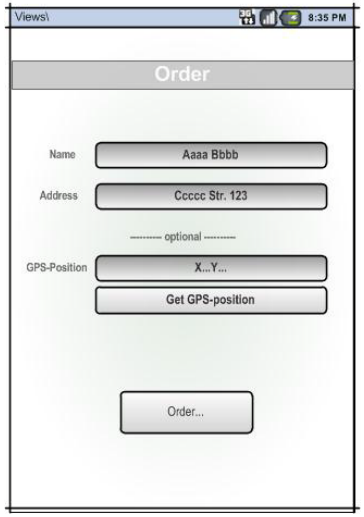


Mockup

Views\
8:35 PM
Deliverer
AAAAA
BBBBB
CCCCC
DDDDD
EEEEE

Views\
8:35 PM
Menu for BBBBB
11111 – 5,95 €
22222 – 4,95€
33333 – 7,95€
44444 – 2,95€
Order...

Views\
8:35 PM
Details of 33333
Asdfghjkl asdfghjkl asdfghjkl…
Qwertzuiop qwertzuiop qwertzuiop…
Yxcvbnm yxcvbnm yxcvbnm...
Back...


Views\
8:35 PM
Order
Name
Aaaa Bbbb
Address
Cccc Str. 123
---------- optional ----------
GPS-Position
X...Y...
Get GPS-position
Order...

Views\
8:35 PM
Confirm Order
Aaaa Bbbb
Cccc Str. 123
---------- optional ----------
X...Y...
---------- your order ----------
22222 – 4,95€
33333 – 7,95€
Sum: 12,90€
Place Order...

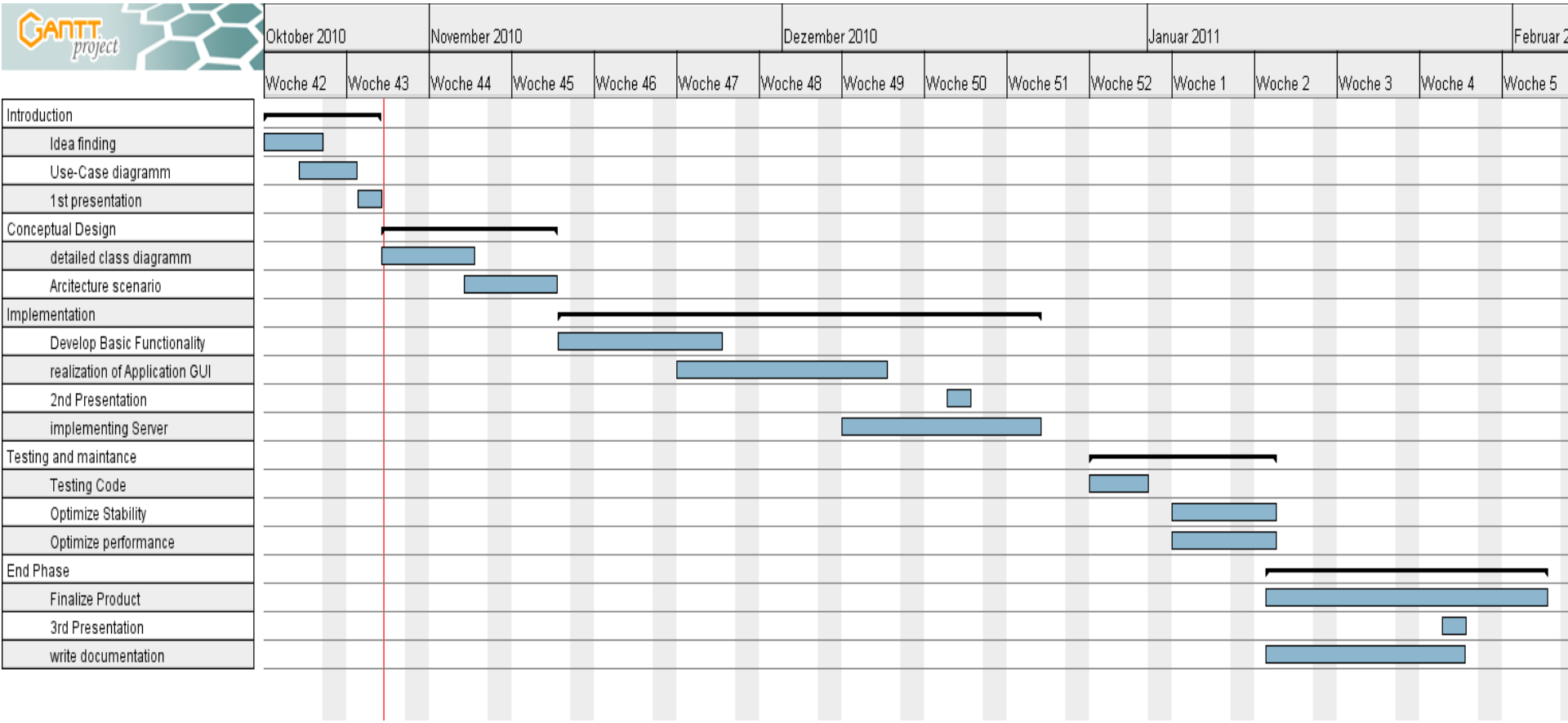
Technologies

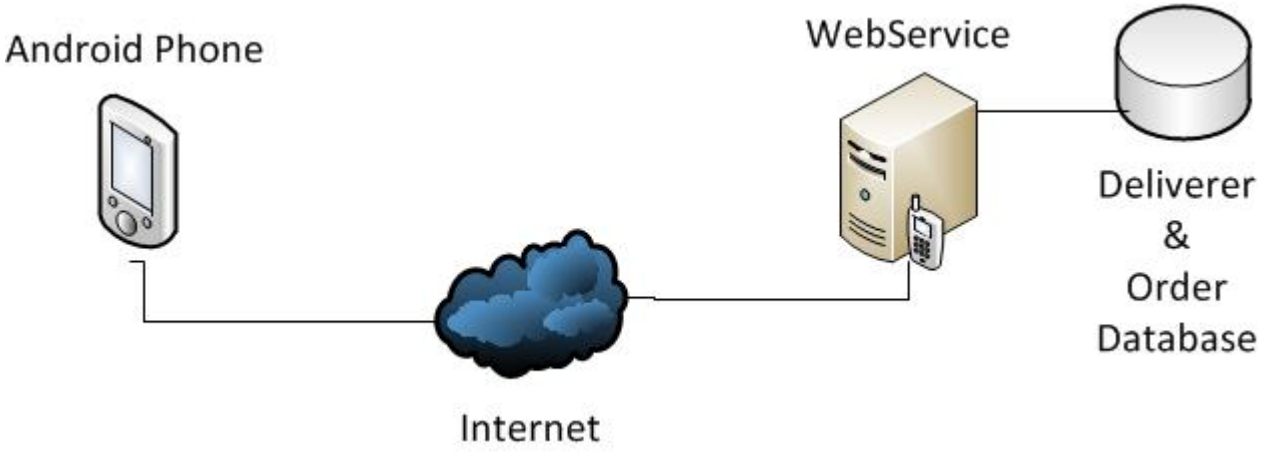
- server
  - MySQL database
  - Web Services (SOA) with Apache Axis
  - runtime environment using Apache Tomcat
- client
  - Android 2.1
- connection via GPRS/UMTS/WLAN

Challenges

- bandwith limitations
  - send all needed data to the mobile device
    - cache on phone
    - update only if needed
  - downscale images to reduce data volume
  - use thumbnails to preview
- usabilty
  - drag and drop ingredients on the Pizza with native gestures
  - adopt GUI to small screen
- device challenges
  - limitation of ressources
  - process recieved data in time

Work plan


GANTT project
Oktober 2010
November 2010
Dezember 2010
Januar 2011
Februar 2
Woche 42
Woche 43
Woche 44
Woche 45
Woche 46
Woche 47
Woche 48
Woche 49
Woche 50
Woche 51
Woche 52
Woche 1
Woche 2
Woche 3
Woche 4
Woche 5
Introduction
Idea finding
Use-Case diagramm
1st presentation
Conceptual Design
detailed class diagramm
Arcitecture scenario
Implementation
Develop Basic Functionality
realization of Application GUI
2nd Presentation
implementing Server
Testing and maintance
Testing Code
Optimize Stability
Optimize performance
End Phase
Finalize Product
3rd Presentation
write documentation

Architecture

- intend to use Client/Server architecture
  - access server trough Web Service using SOAP
  - need a database to hold our data
  - client runs on mobile device with android operating system