

NOTICE!

- These materials are prepared only for the students enrolled in the course Distributed Software Development (DSD) at the Department of Computer Science and Engineering, University of Mälardalen, Västerås, Sweden and at the Faculty of Electrical Engineering and Computing, University of Zagreb, Croatia (year 2010/2011).
- For all other purposes, authors' written permission is needed!
- The purpose of these materials is to help students in better understanding of lectures in DSD and not their replacement!

Distributed Software Development



Arno van Lumig
Davor Perić

PARTool

Requirements and Architecture

Contents

- Requirements
 - Requirements
 - Non-requirements
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- User interface
- Architecture
 - Components
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Requirements

- Web interface
- Clear visualizations
- Ease of use
- Privacy
- Reliability

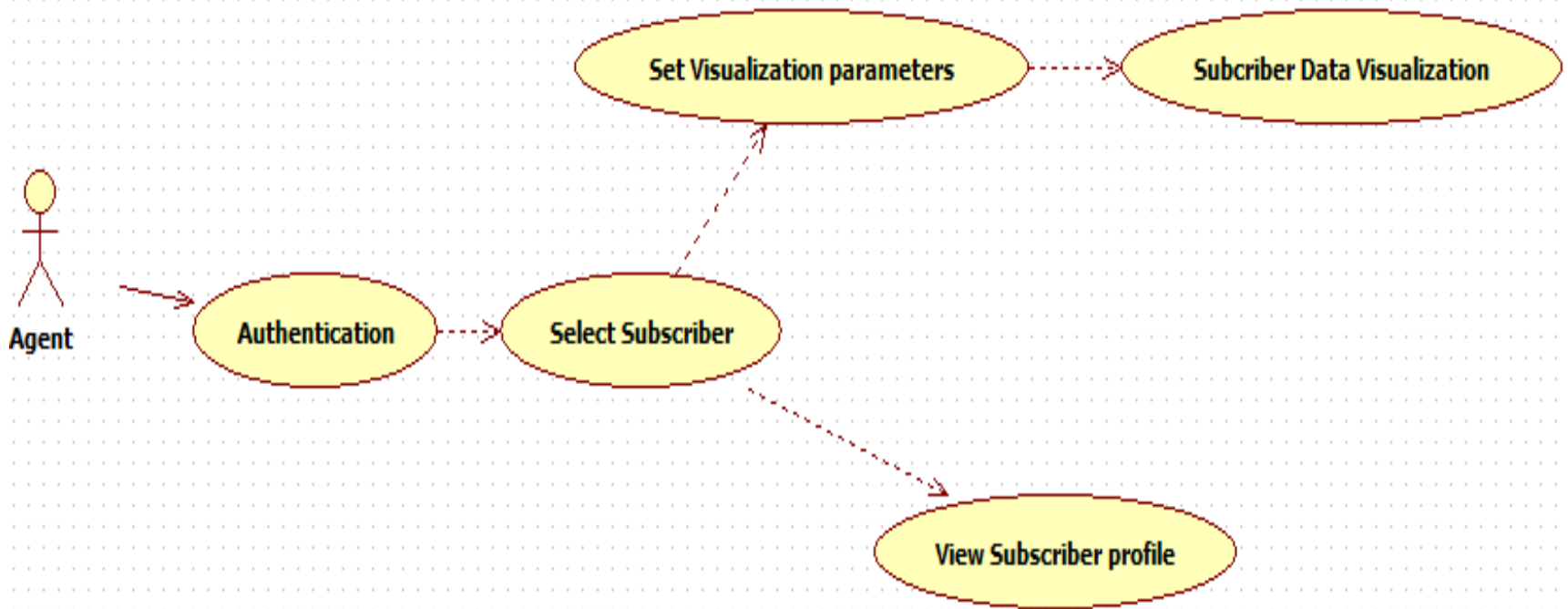
Non-requirements

- Scalability
- Device independence
- Legacy browser support

Use cases

- An agent can
 - Show profile of subscriber
 - Show usage pattern of subscriber

Use case diagram



User interface

Search profile 1 2

Search for subscriber

IMSI: 123456678

Name: van Lumig

Date of birth: 1991

Address: Netherlands

Search

Search profile 0 3 [Close tab](#)

Sat 0

Fri 14

Thu 28

Wed 42

Tue 56

Mon 70

Sun 84

12am 1 2 3 4 5 6 7 8 9 10 11 12pm 1 2 3 4 5 6 7 8 9 10 11

0 14 28 42 56 70 84 98 112 126 140 154 168 182 196 210 224 238 252 266 280 294 308 322

Profile items

- Roaming
- Voice
- SMS
- MMS
- GPRS

Profile items properties

Roaming abcdef + -

Voice 123456 + -

Measure type

- Number of calls
- Duration
- Rated amount
- Discounted amount

Aggregation

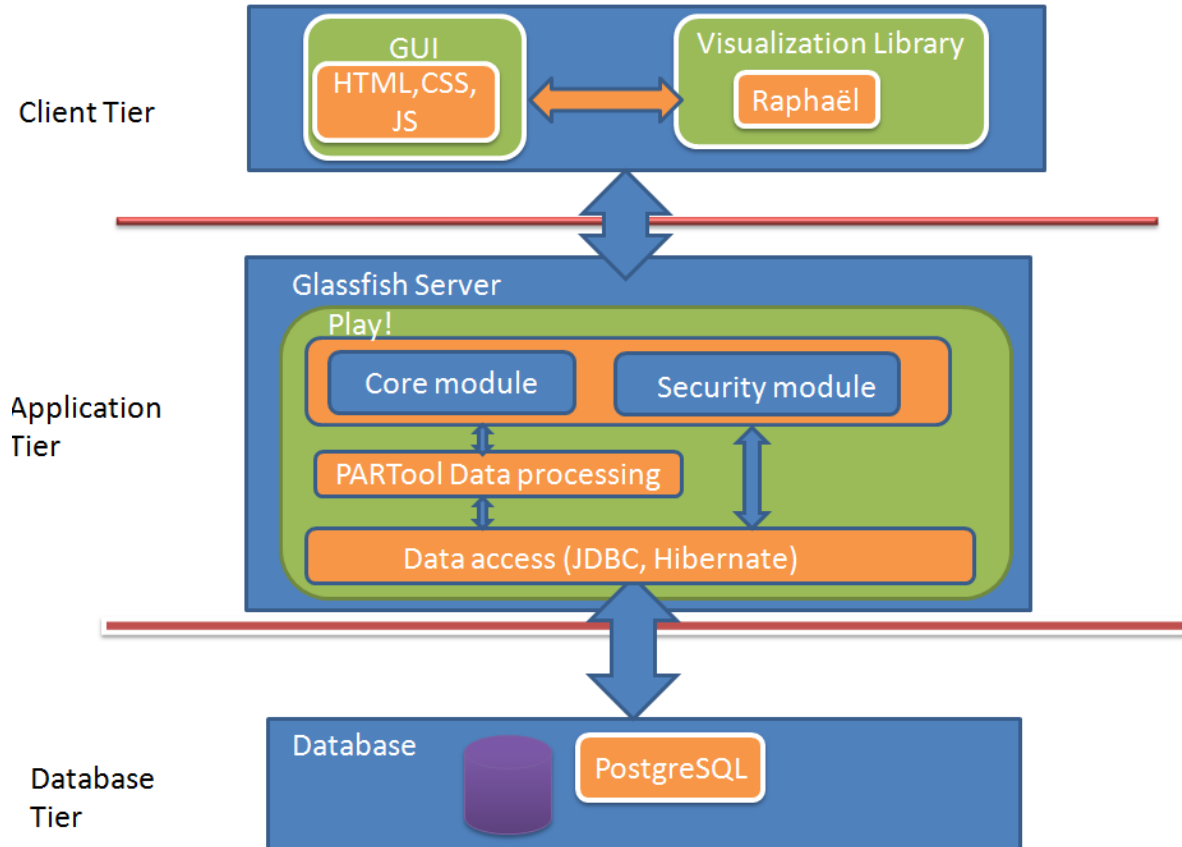
- Sum
- Average

Date range

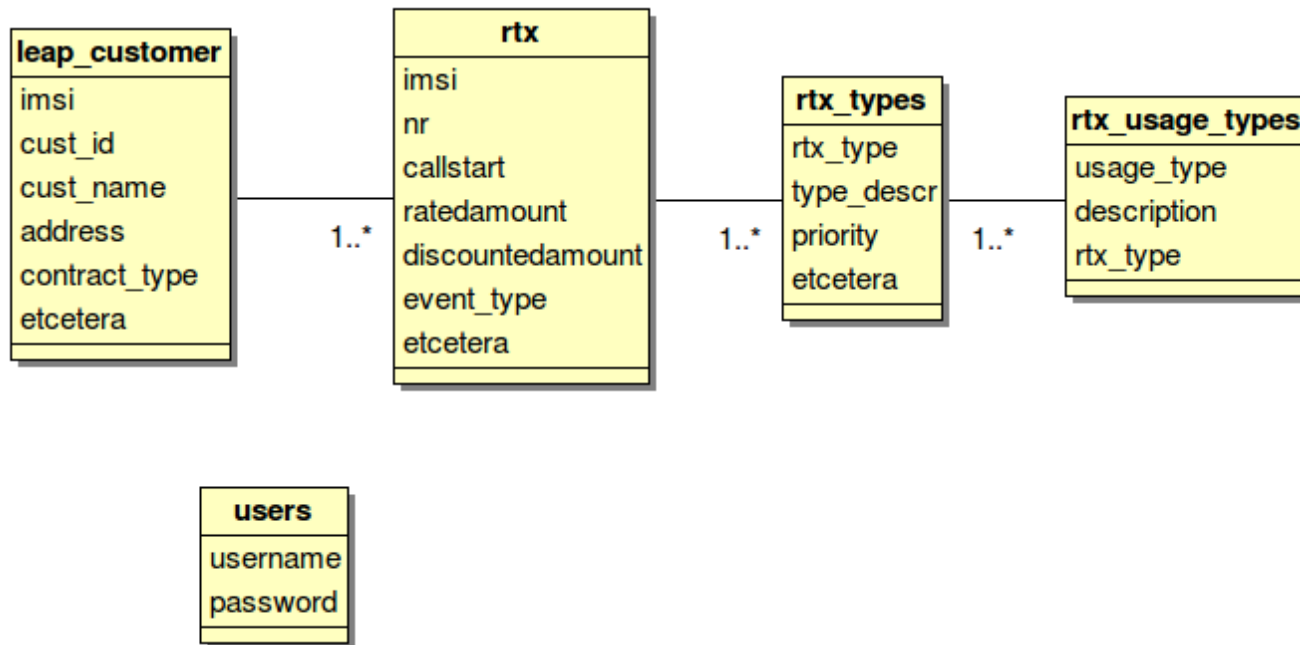
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End date: mm/dd/yyyy

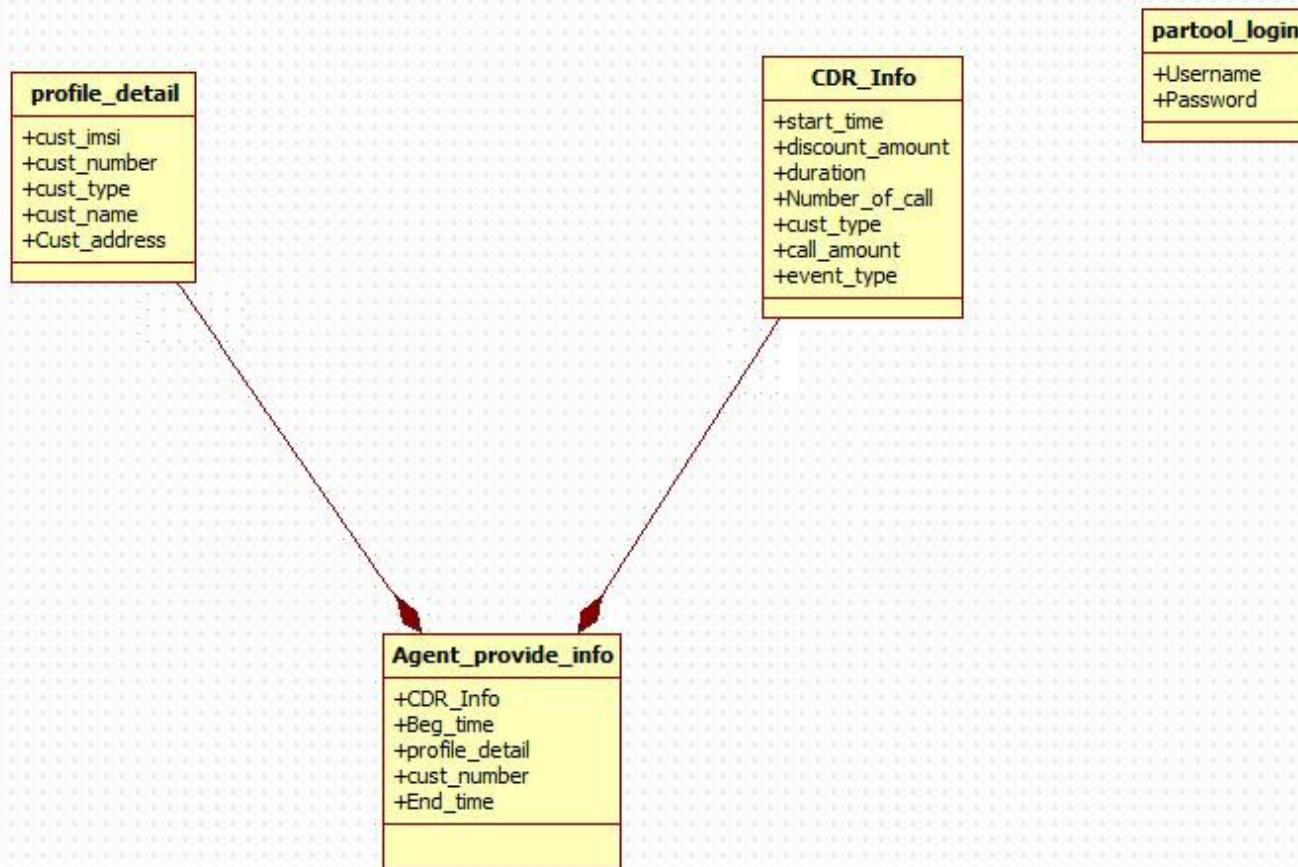
System components

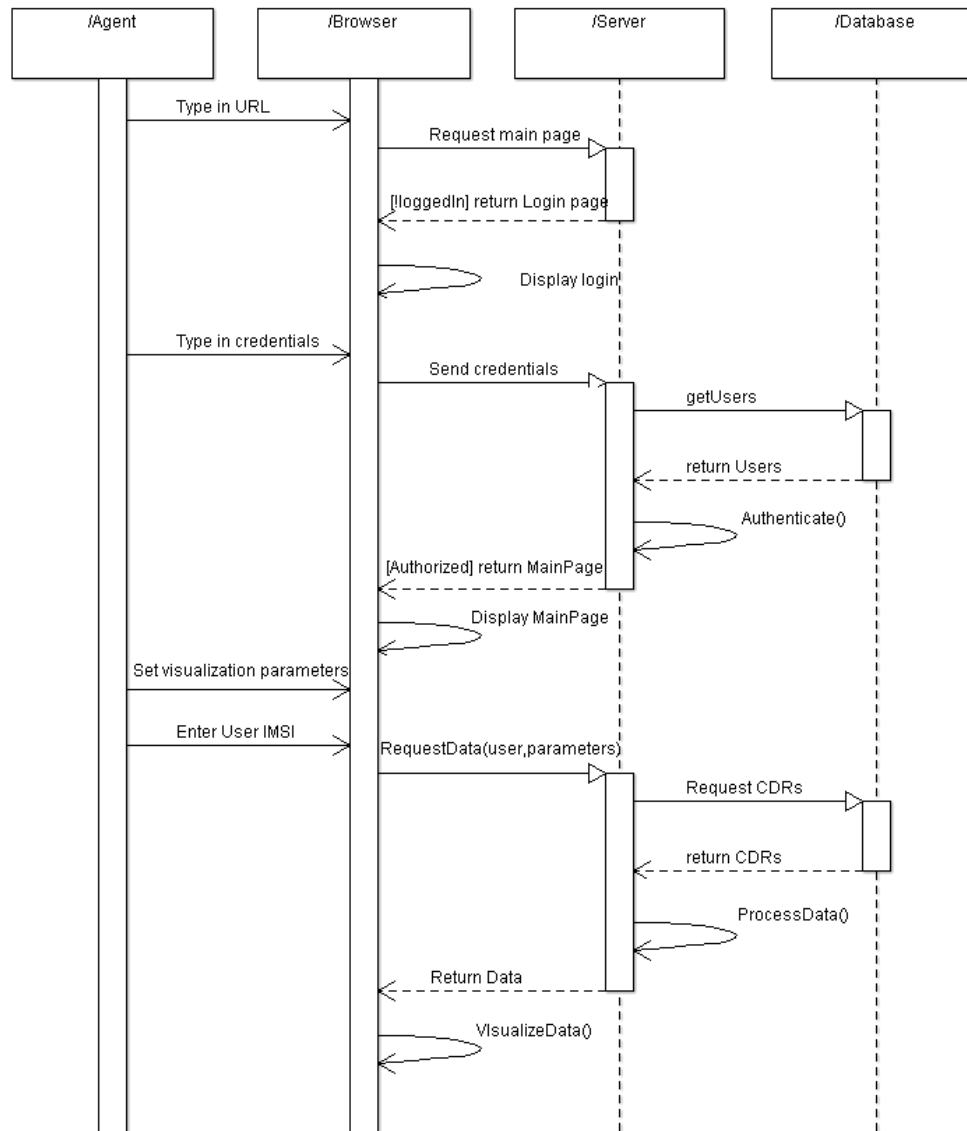


Database structure



Class diagram





Technologies

- Web application

- HTML, CSS
- Javascript, Raphael.js
- jQuery, JSON
- AJAX
- REST



dreamstime.com



- Web server

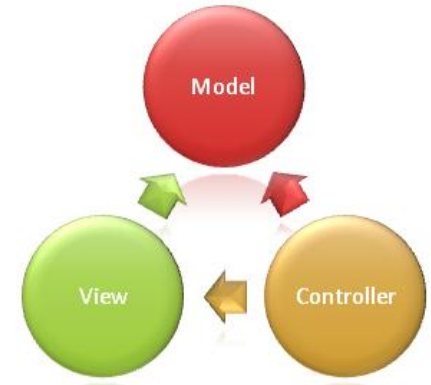
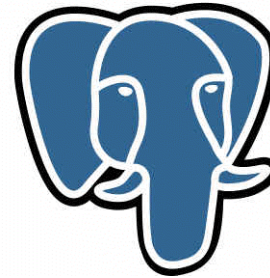
- Glassfish



Technologies continue

- Database
 - PostgreSQL
 - Hibernate, JPA
- Design pattern
 - MVC (play framework)

PostgreSQL



Play! 

Questions?

