AUDI RESOURCE PROCESS VISUALIZATION

Team 2 // Gumbrecht, Guo, König, Mühlroth, Stauffert

01 // PROJECT GOAL
02 // SOFTWARE DEMO
03 // SYSTEM ARCHITECTURE
04 // PROCESS REFLECTION

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01 // PROJECT GOAL
background

- **7** countries, **11** plants
- **1.5 million** cars / year
- **4000** cars / day
- **1000** electrical components / car
- **4 million** electrical components / day

How to monitor the status of
electrical components in the global range?

01 // PROJECT GOAL
AUDI‘s NEEDS

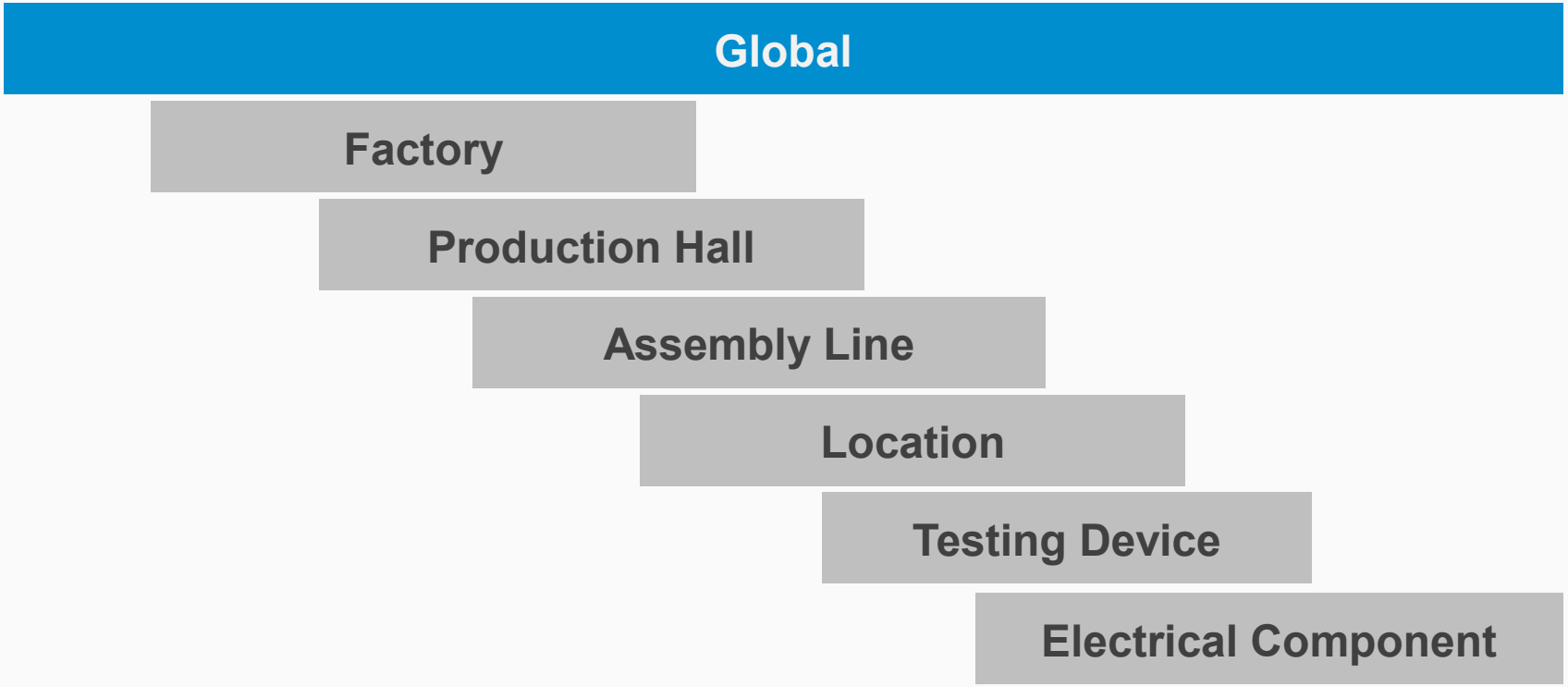
- IT support to **monitor** factories, halls, production lines, testing devices and electrical components **globally**
- Collection of **aggregated information** in one single IT-tool
- Comprehensive information of all available components in **real-time**
- Possibility of **customizing** the application any time

01 // PROJECT GOAL
VISION

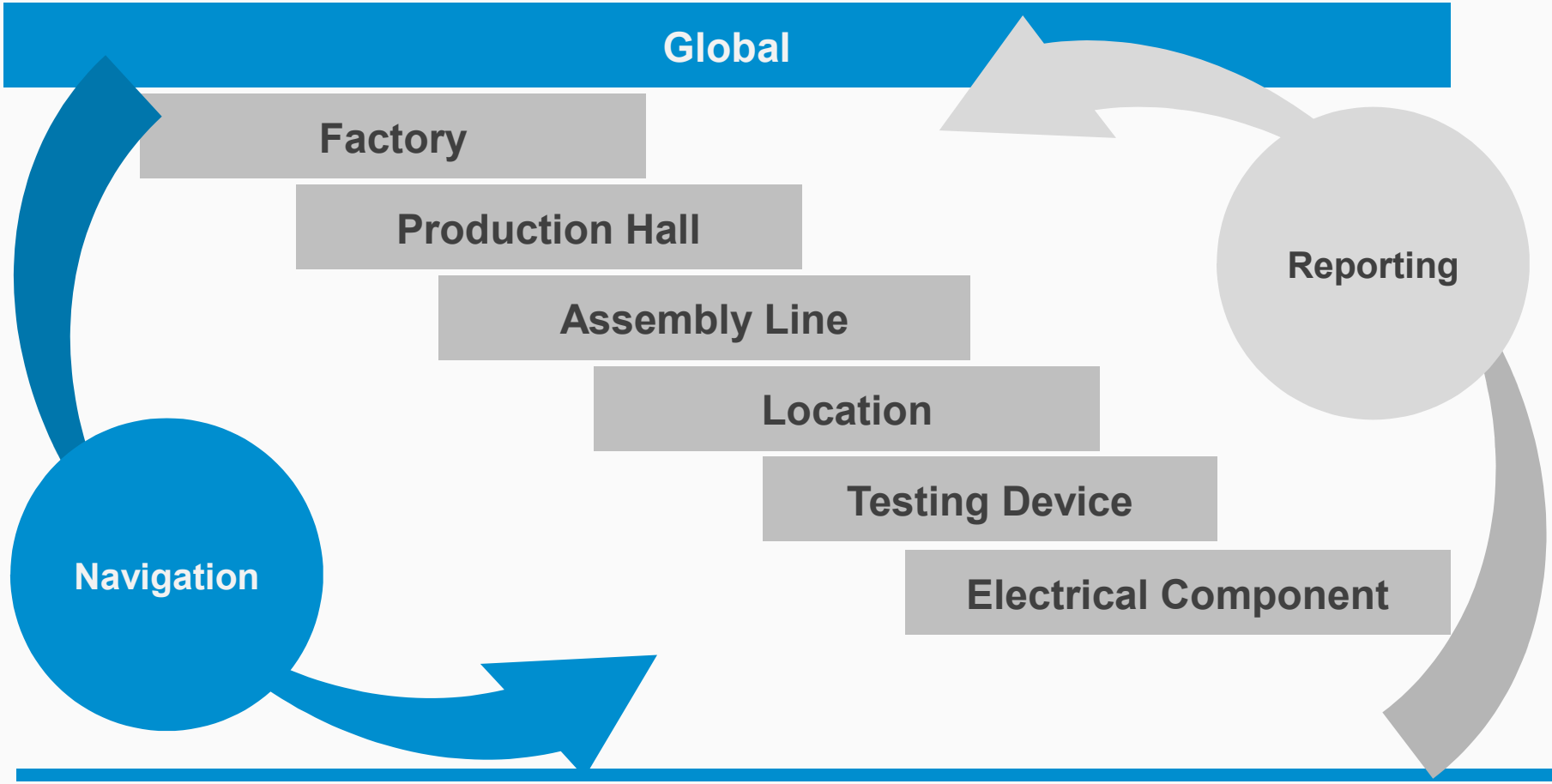
The AUDI Resource Process Visualization project aims to visualize the quality and testing status of the electrical components in AUDI's global production plants. A navigable world map allows hierarchical browsing and dive into every production unit. At each level of browsing, the aggregated quality and testing status is reflected.

01 // PROJECT GOAL
VISION

01 // PROJECT GOAL
hierarchy



01 // PROJECT GOAL
Feature DIVISION



01 // PROJECT GOAL
value delivery

Stakeholders

User	Administrator
Management	Enterprise

01 // PROJECT GOAL
value delivery

- Functionality
- Customization
- UI with latest technologies

User

- Configurability
- Extensibility
- Cross-platform accessibility

Administrator

Management

- Information-intensive
- Quality controlling
- Assist decision-making

Enterprise

- Competitive advantage
- Corporate reputation
- Leadership in the market

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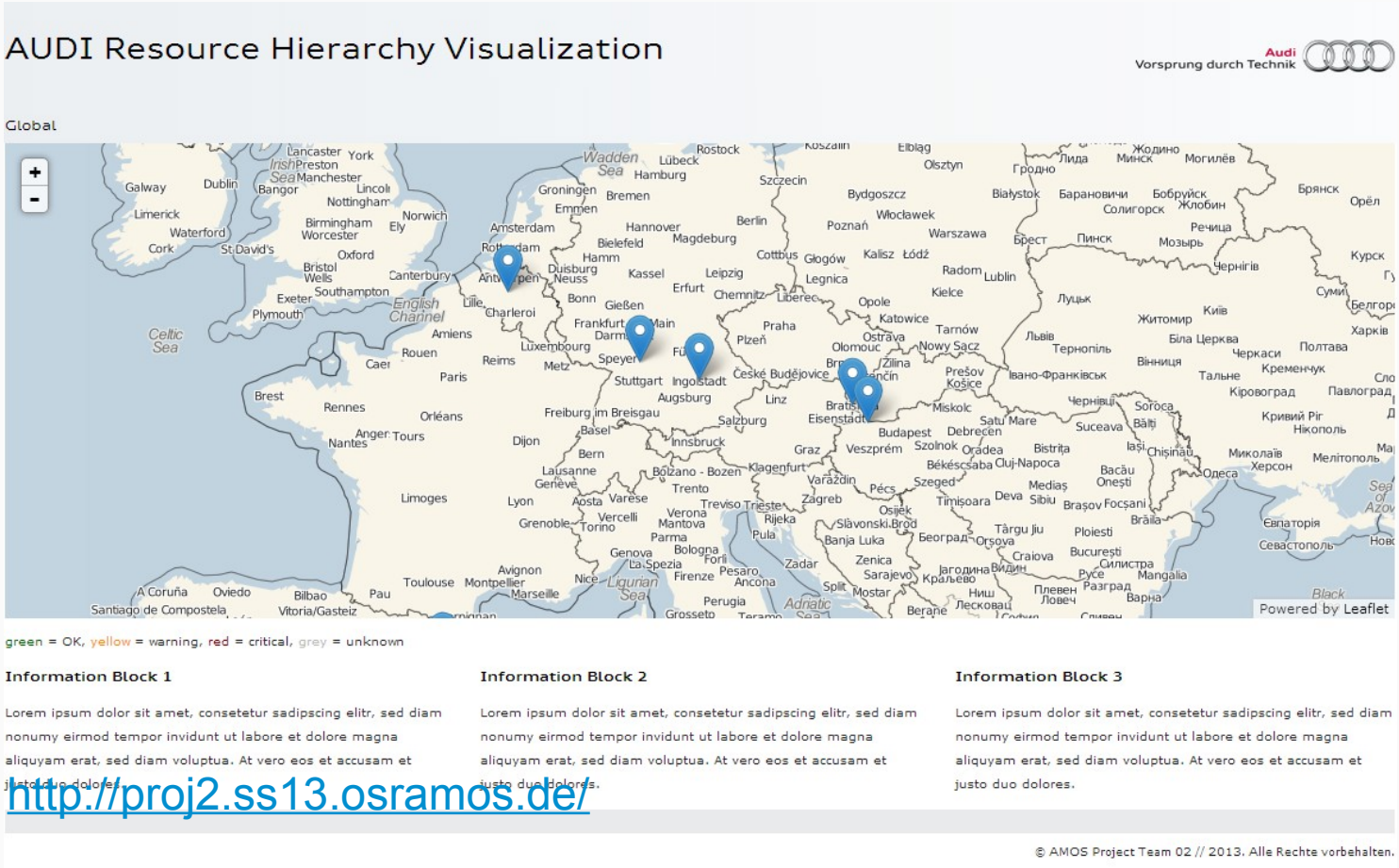
02 // SOFTWARE DEMO
LIVE PRESENTATION



http://proj2.ss13.osramos.de/

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01 // PROJECT GOAL
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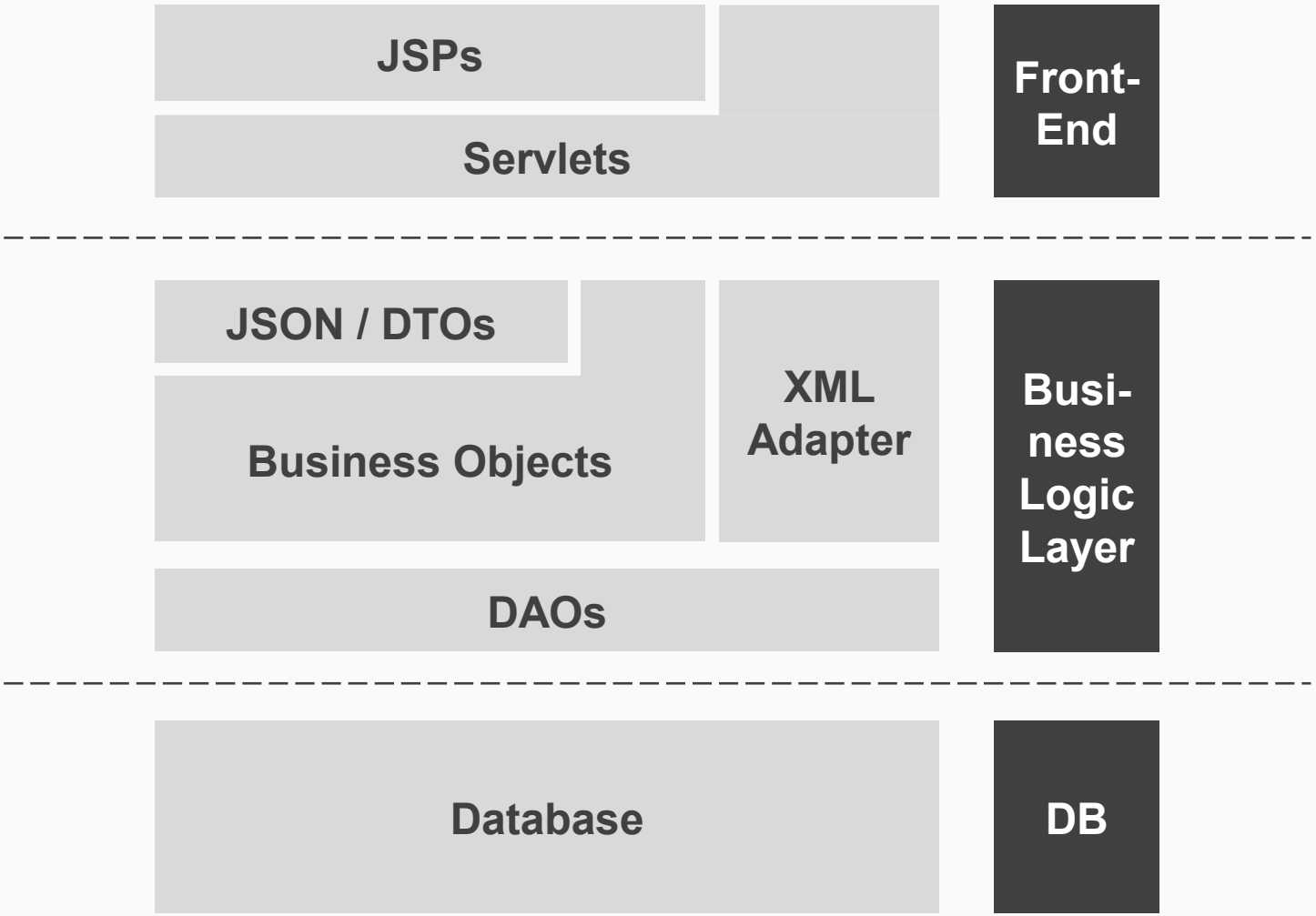
03 // SYSTEM ARCHITECTURE
- FRONT-END
- BUSINESS LOGIC LAYER
- DATABASE

04 // PROCESS REFLECTION

03 // SYSTEM ARCHITECTURE BASICS



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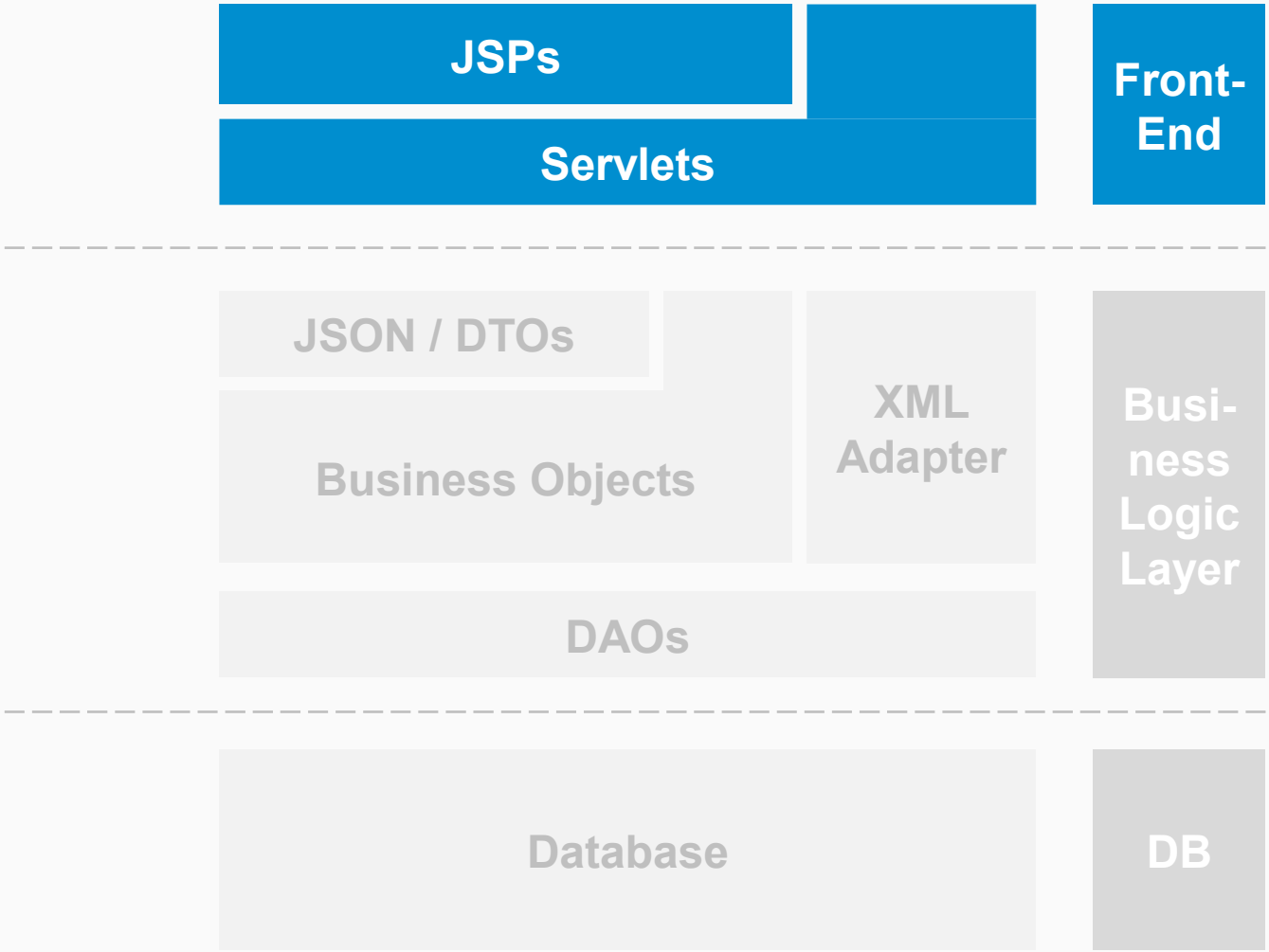
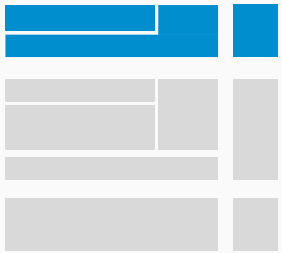


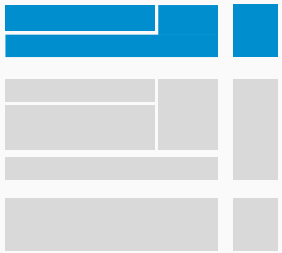
03 // SYSTEM ARCHITECTURE
FRONT-END REQUIREMENTS

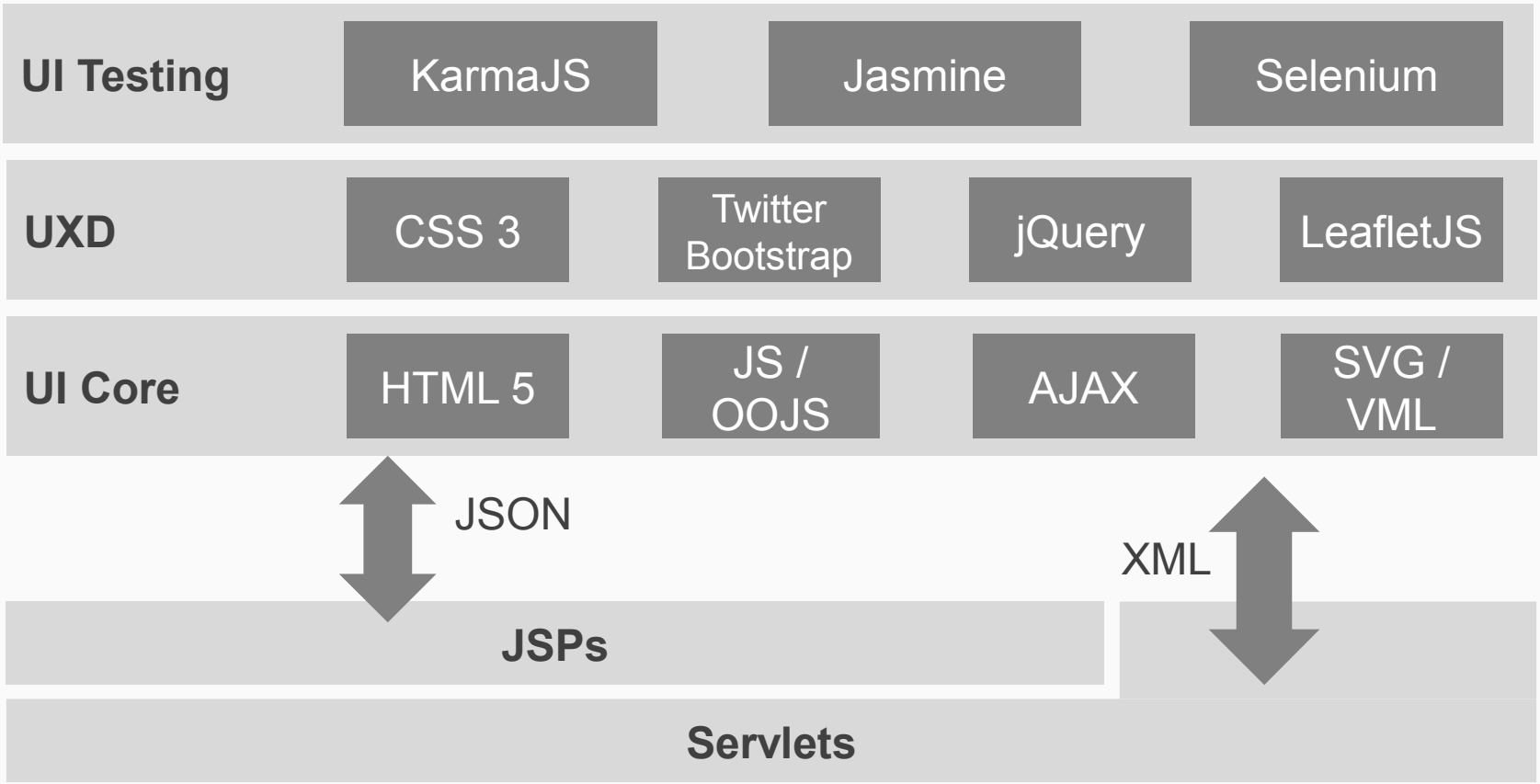


Front-End requirements:

Fluid	Columns set relative to others
Responsive	Fluid grid for usage on PC / notebook / tablets
Adaptive	Supporting different screen sizes
AUDI CI Design	Web-fonts, colors, page grid

03 // SYSTEM ARCHITECTURE
FRONT-ENd overview

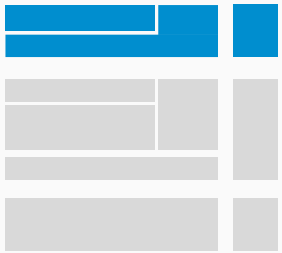




03 // SYSTEM ARCHITECTURE
FRONT-END BASIC STACK

HTML 5 + CSS 3 + Javascript

03 // SYSTEM ARCHITECTURE
FRONT-END PLUGINS (excerpt)



jQuery
write less, do more.

Bootstrap

Leaflet

Jasmine

Se

KARMA PROJECT

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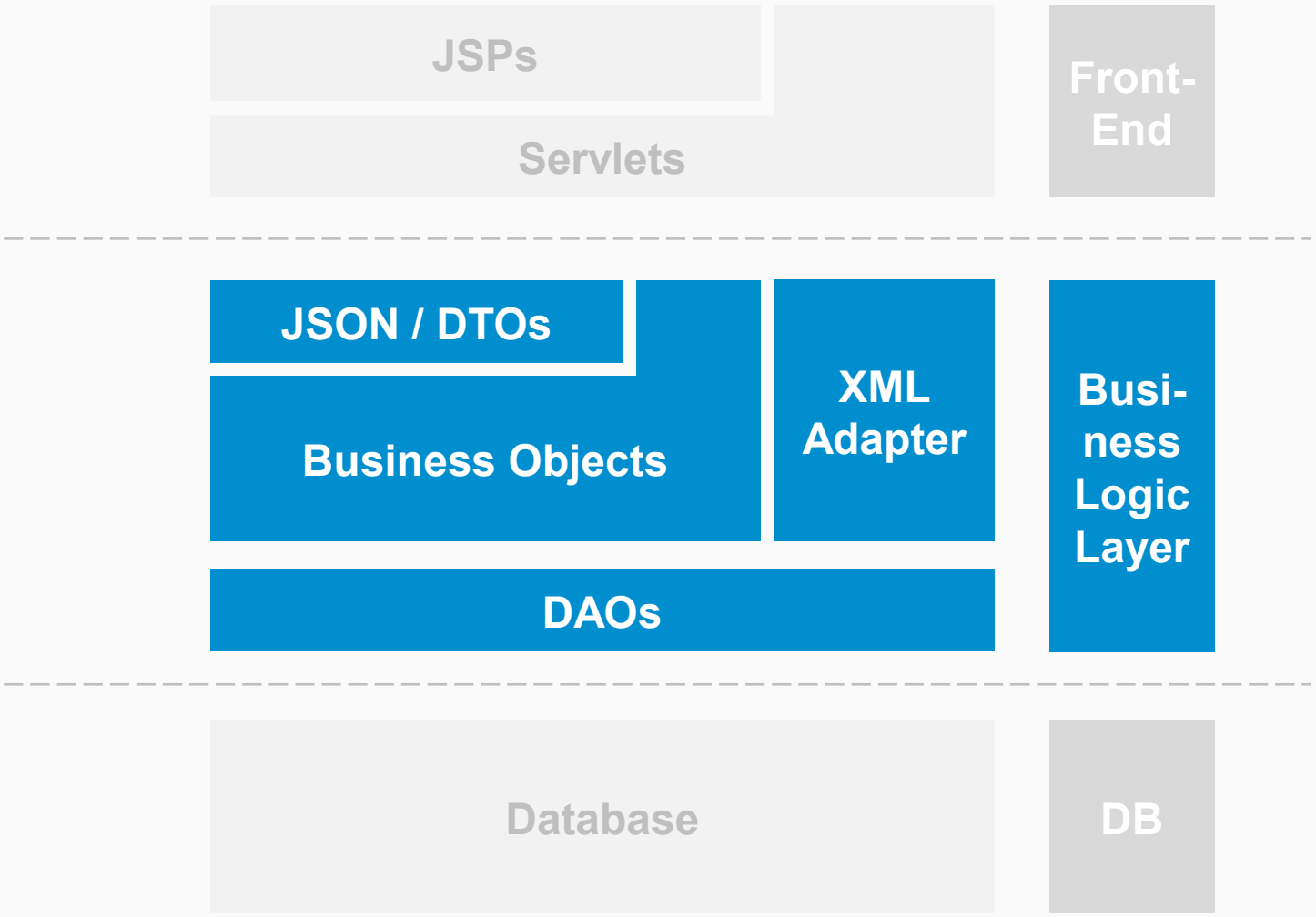
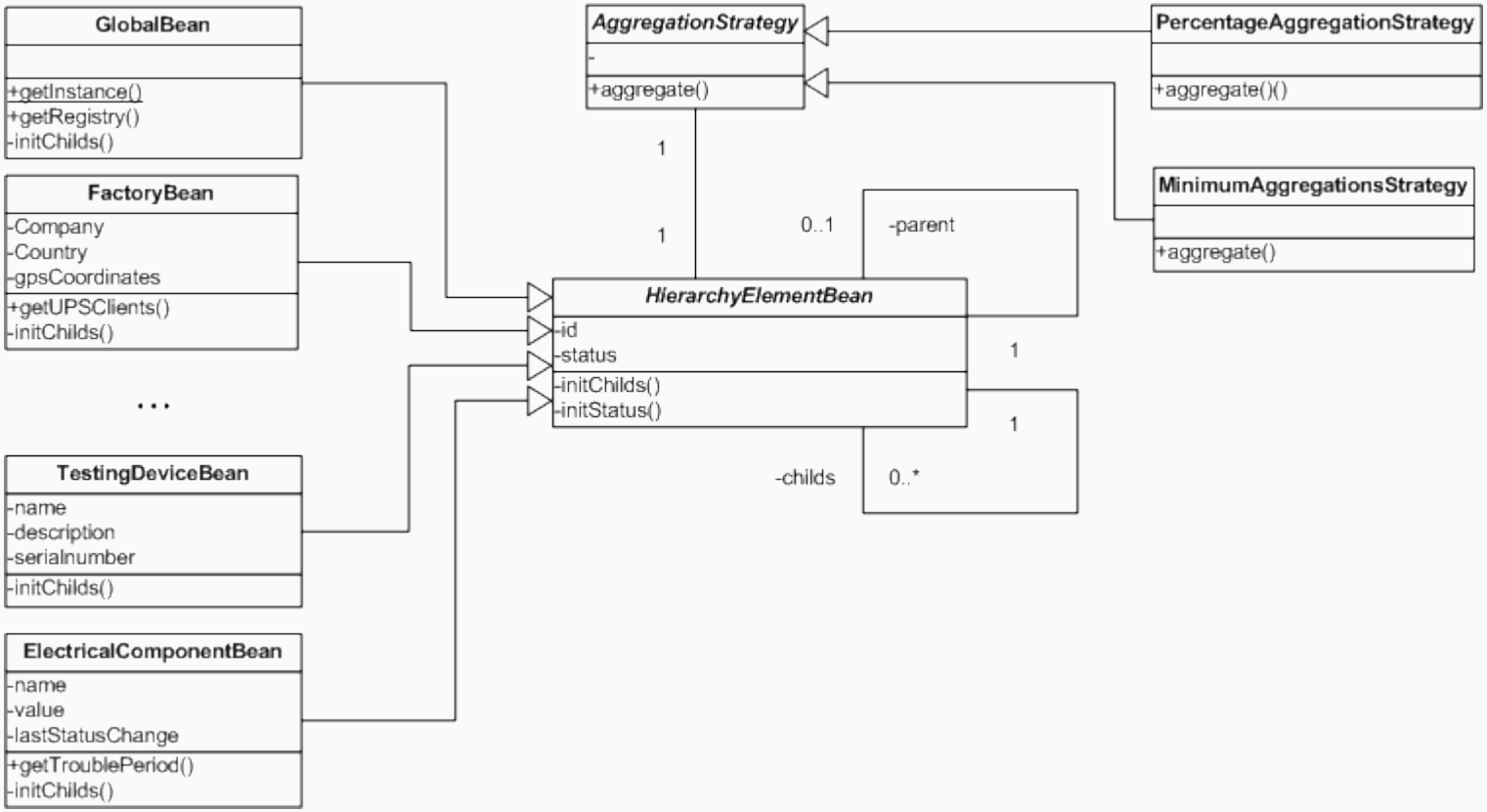
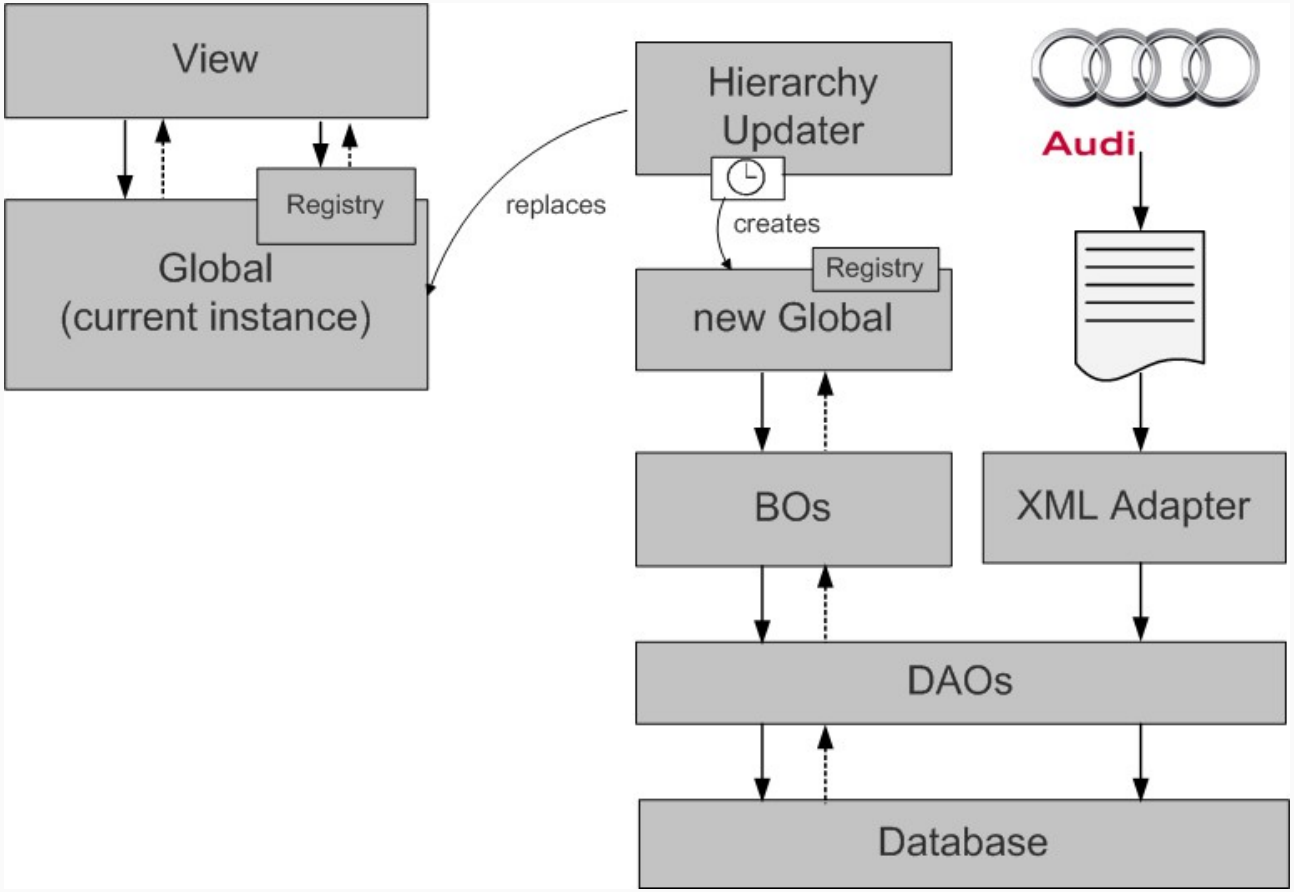


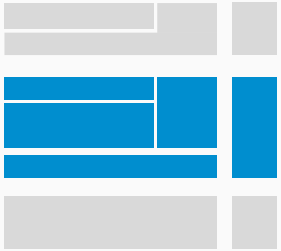
03 // SYSTEM ARCHITECTURE
Class diagram (excerpt)

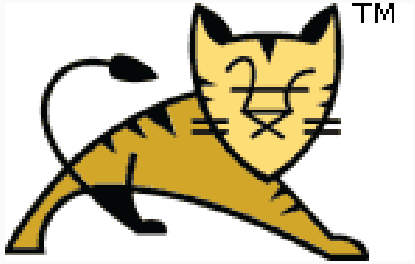


03 // SYSTEM ARCHITECTURE
Data flow



03 // SYSTEM ARCHITECTURE
Technology stack





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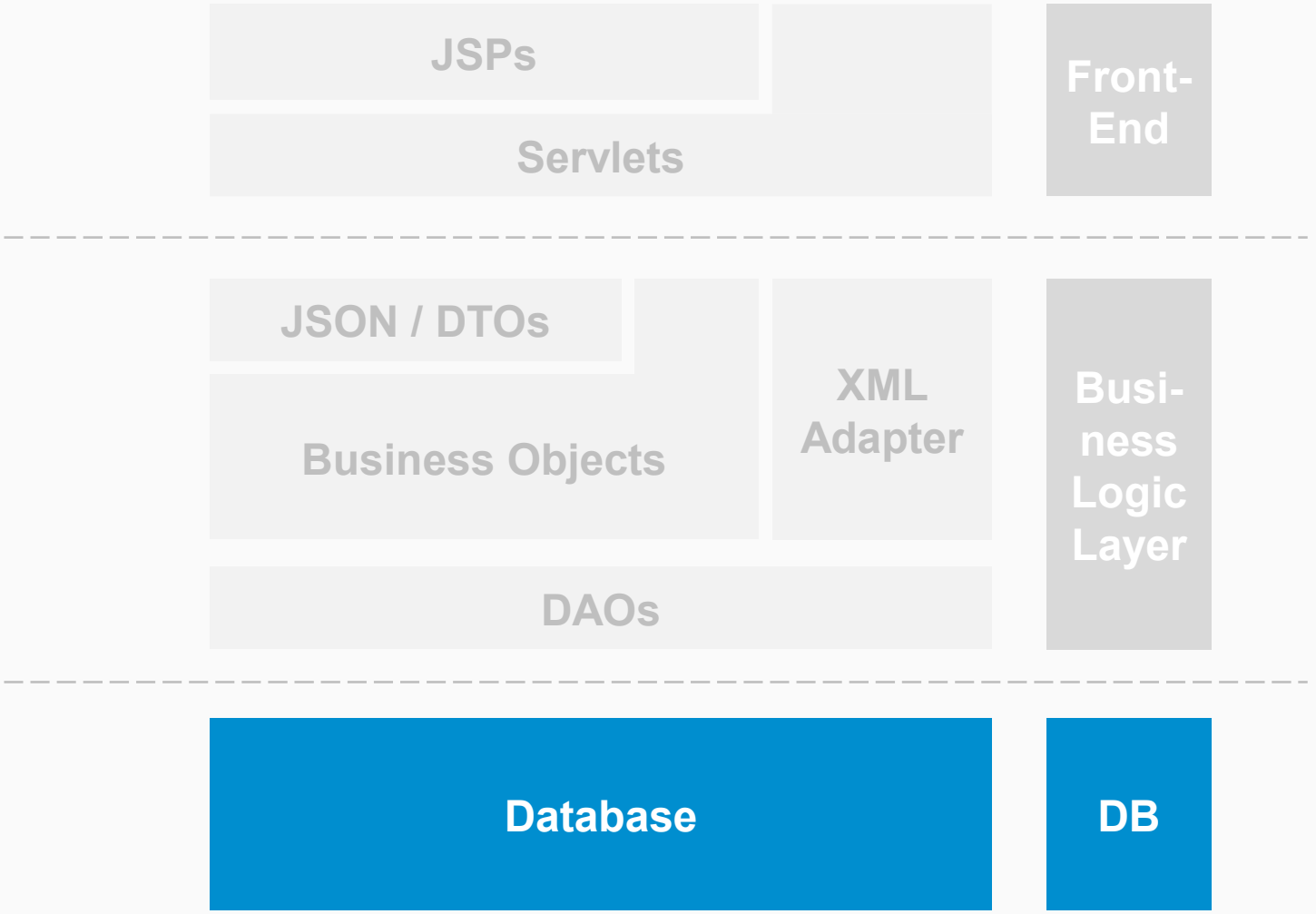
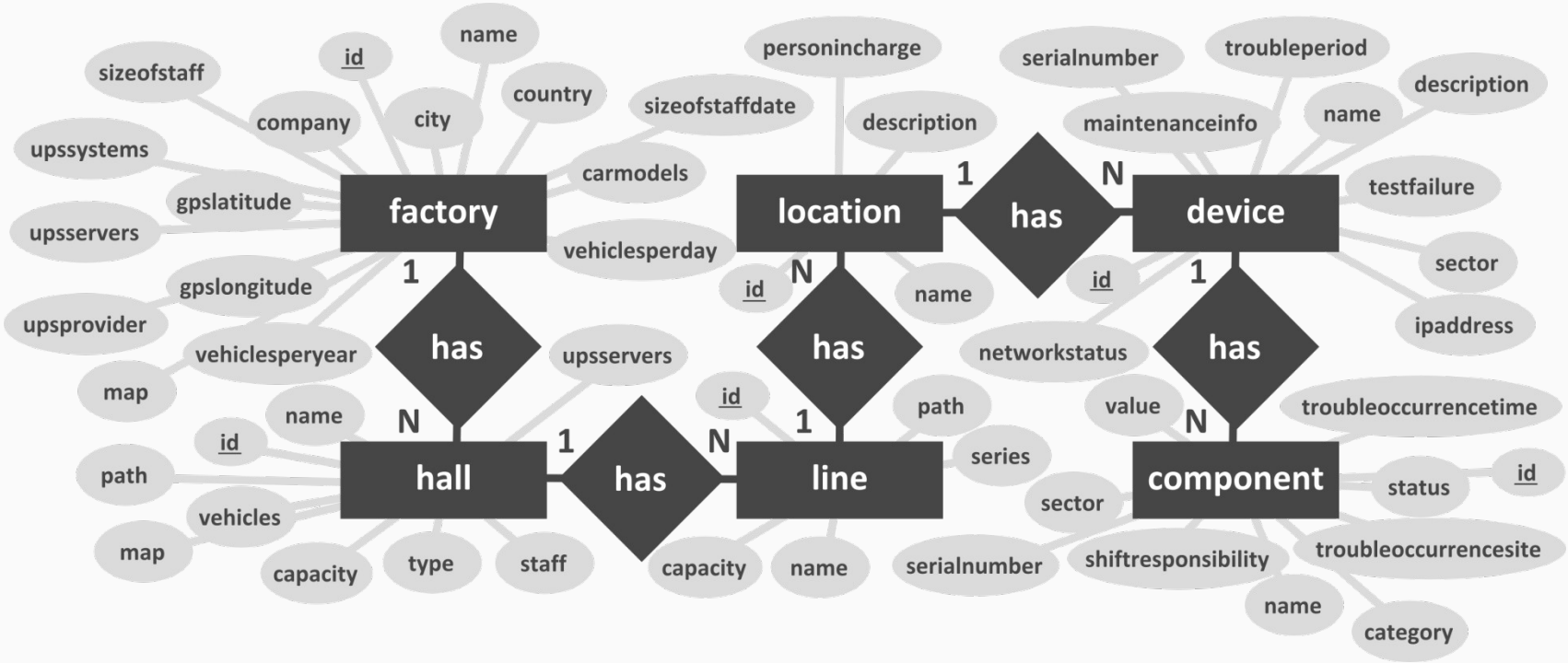
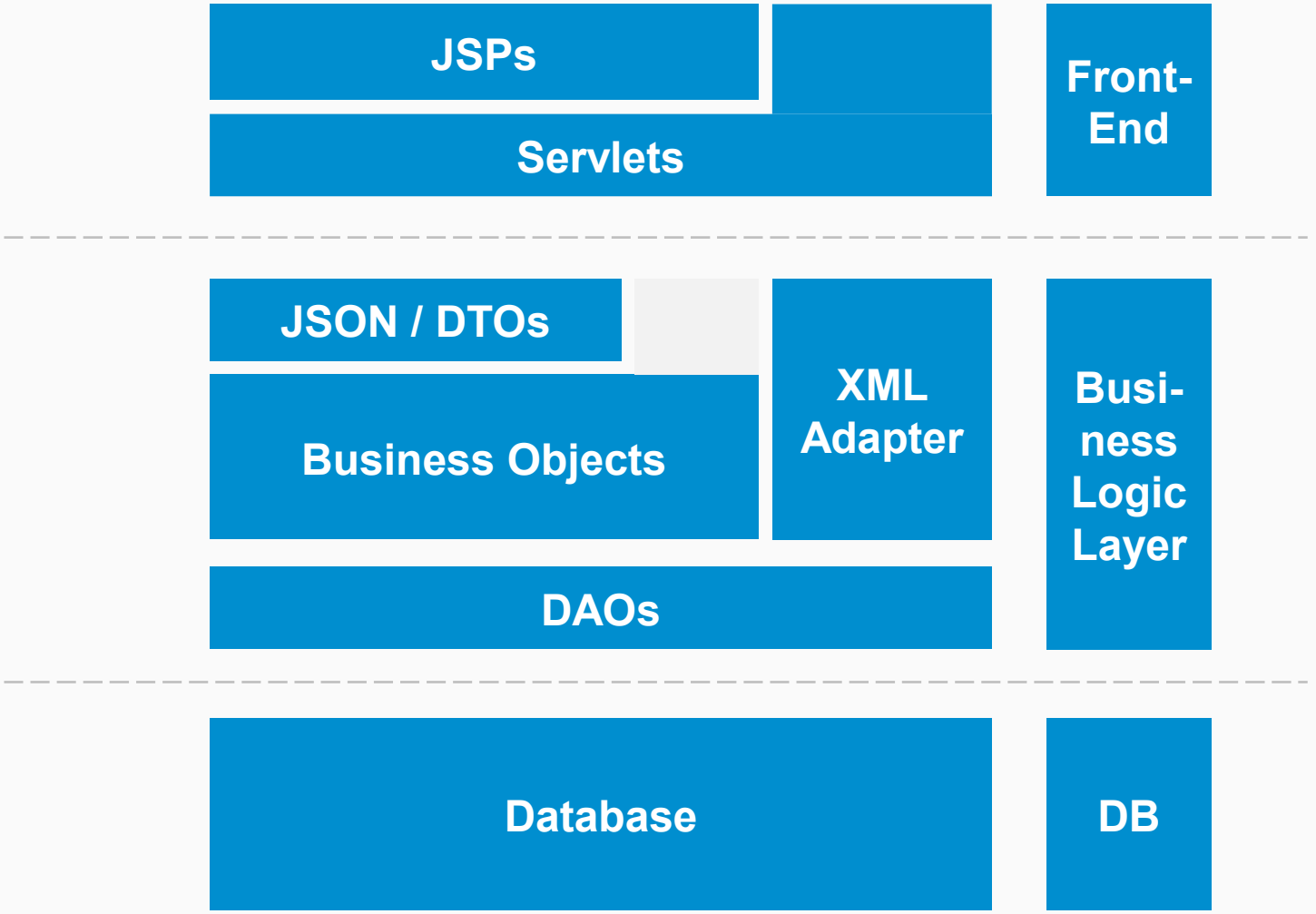


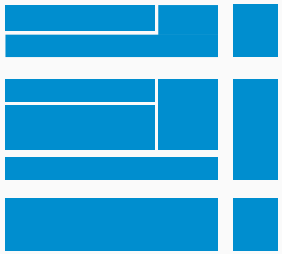
03 // SYSTEM ARCHITECTURE
Database ER-Diagram



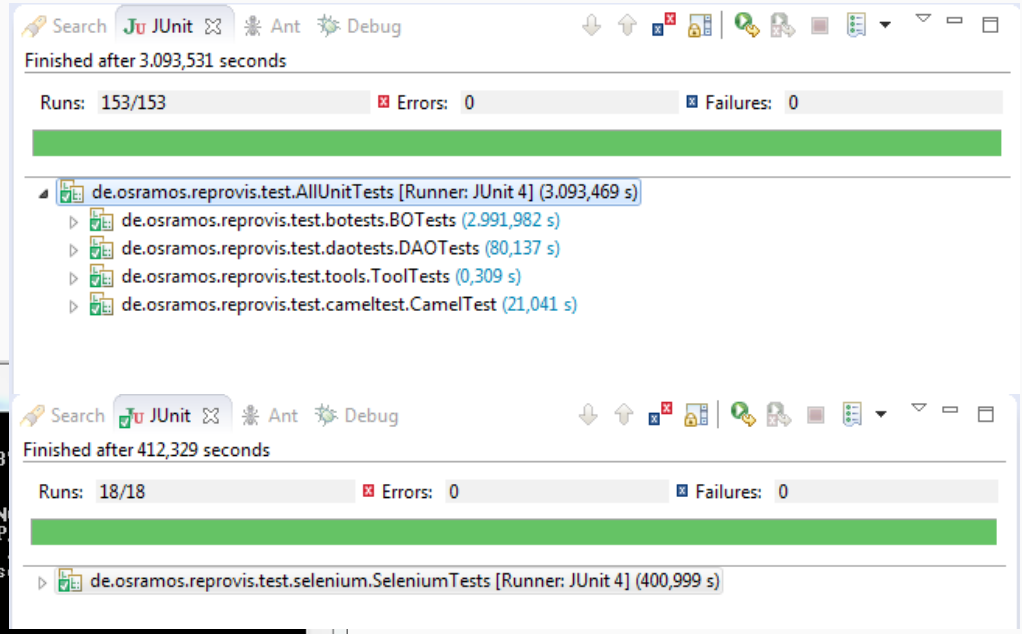
03 // SYSTEM ARCHITECTURE
TESTING

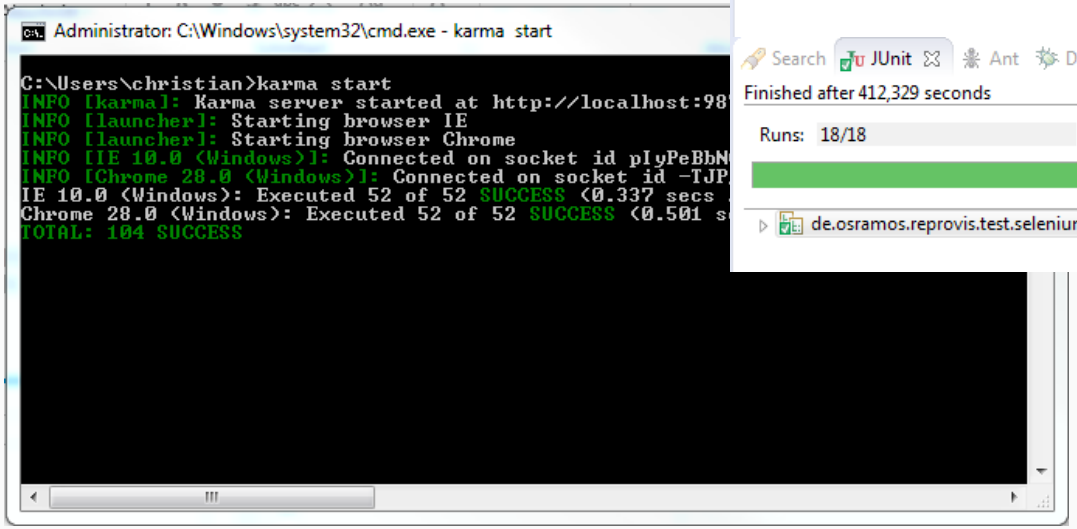


03 // SYSTEM ARCHITECTURE TESTING



- **153** JUnit Tests
- **52** Javascript Tests
- **18** Selenium Tests





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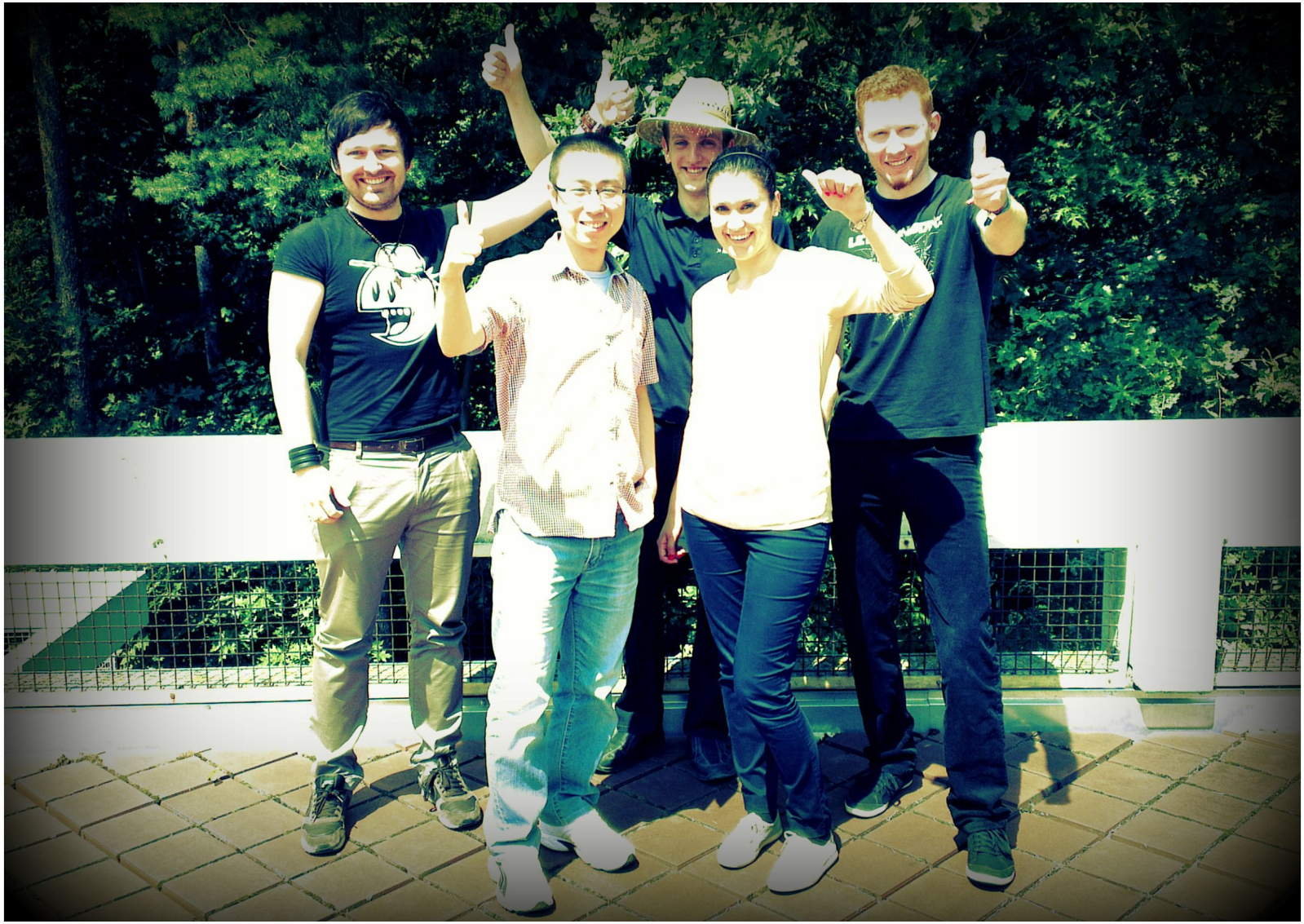

Thank you!
Questions?

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