



Jörg Baumann

Sun Certified Java Programmer

Software-Development Java / Java EE
Berlin Prenzlauer Berg

Born in 1970

Employments:

2001 – 2003 Concept AG / Ogilvy Interactive
(Software-Developer)

1999 – 2001 Eurotel NewMedia GmbH
(Web-Developer)

Freelancer since 2003

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Professional Focus

I focus on developing Java EE-based web applications, having experience of many years in designing and programming for the business-, data- and presentation layer/webservices against different application servers, thereby using multiple Java EE implementations and extending frameworks.

Further topics include build-processes, standard Java SE applications, geographic data management, OSGi/Eclipse, SWT/Eclipse-Plugins as well as Web-Frontend.

Project Work

I am familiar with established project workflows like bug-tracking, version control or continuous integration, as well as with development methodologies like scrum, kanban or the waterfall model.

When part of a team, I set a high value on a fair and targeted cooperation, which I think to be one of the most important requirements on the way to a successful solution.

Service Range

Programming

Development of stable, efficient, clear and appropriate commented Java code, emphasizing on modularity, easy maintainability and extendability and high reusability.

Reasonable measures for quality with unit- and integration testing and appropriate logging.

Support on technical project setup, deployment processes, markup for JSP, jsf, velocity etc., creation of technical documentation, product descriptions, manuals etc.

Design

Creation of technical conceptions and component- and class-diagrams, as well as database modeling, aiming to keep complexity as little as possible while providing the best possible modularity.

Planning

Support in evaluating functional requirements from a developer's view, regarding feasibility, time and effort, consistency and compatibility among all requirements.



Skills

During the past years I gained a wide experience with numerous technologies and strategies. Based on that, I am able to familiarize myself also with new topics and challenges quickly.

Java SE

Java 8+	+++
Java 7	+++
Java 6	+++

Jakarta EE

EJB	+++	
JPA / JTA	+++	
	<i>OpenJPA</i>	+++
	<i>Geronimo Transaction</i>	++
	<i>EclipseLink</i>	+++
	<i>Hibernate</i>	+++
	<i>Spring Data</i>	++
	<i>JPQL / Criteria API</i>	++
JAX-WS	++	
	<i>Metro</i>	++
	<i>Axis 2</i>	++
JAX-RS	++	
	<i>CXF</i>	+++
	<i>Jersey</i>	++
	<i>Spring</i>	++
CDI	+++	
	<i>OpenWebBeans</i>	+++
	<i>Weld</i>	+++
	<i>Spring</i>	++
Servlet API / JSP	+++	
JSTL, EL	+++	
JavaServer Faces	+++	
	<i>MyFaces</i>	+++
	<i>PrimeFaces</i>	+++
	<i>Mojarra</i>	++
Server		
	<i>TomEE</i>	+++
	<i>Tomcat</i>	+++
	<i>Wildfly</i>	++
	<i>JBoss</i>	++
	<i>Glassfish</i>	+
	<i>Jetty</i>	+

Web Frontend

HTML / Web		
	<i>HTML 5</i>	++
	<i>XHTML</i>	++
	<i>CSS 3</i>	++
	<i>Bootstrap</i>	+
	<i>Sass</i>	+
	<i>Angular</i>	+
	<i>JavaScript</i>	++
	<i>JQuery</i>	++



Skills..

	Ajax	++
	Json	++

XML

XML		
	XML	+++
	XSD, DTD	++
	XSLT	+
	JAXB	++
	JAXP (DOM, SAX, StAX)	+
	JDK xjc	+

RDMS

SQL		++
PostgreSQL		
	Data Management	++
	Server Administration	++
MySQL		
	Data Management	++
	Server Administration	++
SQLite		+

GIS

PostGIS Extension		++
Geoserver		++
QGIS		+
OpenLayers		++

Test

Test Frameworks		
	JUnit	++
	DBUnit	+
	Mockito	+

Proj. Setup

Build / CI		
	Gradle	+++
	Maven	++
	Ant	+++
	Jenkins	+++
Versioning		
	GIT	+++
	Subversion	+++
Management		
	Scrum	++
	Kanban	+
	JIRA	+++
	Confluence	+++
	Mantis	++
	Bugzilla	+
Docker		++



Skills..

Misc

UML		+
	<i>UML Designer</i>	+
Portal / Portlet		
	<i>Liferay 6</i>	++
	<i>Liferay 7</i>	+
CMS		
	<i>OpenCms</i>	+++
	<i>CoreMedia</i>	+
	<i>Chemistry / CMIS</i>	++
Web Frameworks		
	<i>Spring MVC</i>	++
	<i>Struts</i>	+++
	<i>Tapestry</i>	+
	<i>Tiles</i>	+
	<i>Stripes</i>	+
OSGi		++
	<i>Eclipse Plugins</i>	++
	<i>Eclipse SWT / JFace</i>	++
	<i>Apache Felix</i>	+
Misc		
	<i>bash</i>	++
	<i>Apache Shiro</i>	+++
	<i>Lucene / Solr</i>	+
	<i>Log4j</i>	+++
	<i>Apache POI</i>	++
	<i>Apache PDFBox</i>	+++
	<i>Apache FOP</i>	+
	<i>Apache Velocity</i>	+++
	<i>Apache Http Server</i>	++
	<i>AJP13 / mod_jk, mod_proxy</i>	++
	<i>Freemarker</i>	++
WebRTC		
	<i>Coturn Server</i>	+
	<i>Socket / Signaling</i>	++
	<i>WebRTC API</i>	+



Projects (Excerpt)

Nov 2016 - Jun 2019

Yellow Pages for Forestry Operations and Forest Owners

The application offers a professional presentation-platform to forestry operation companies. Forest owners can quickly find a regionally operating company to solve their problems.

- Definition of functional requirements and technical conception
- Full-Stack Java EE Development
- CI Processes
- QA, Test, Documentation

[Detailed description](#)

Nov 2016 - Jun 2019

Service Portal for Communities in Forestry Operations

Web application providing functionality in the area of administrative tasks of forestry operations communities. These tasks include member-, plot-, document and suppliers-management as well as accounting and forestry measures.

- Definition of functional requirements and technical conception
- Full-Stack Java EE Development
- CI Processes
- QA, Test, Documentation

[Detailed description](#)

Jan 2016 - Feb 2016

B2B-/B2C-Service-Platform Cultural Events

Web-based platform allowing cooperation among event organizers and tourism companies. Ticketing for end customers.

- Technical conception targeting better maintainability, extensibility and performance
- Prototype development / PoC

[Detailed description](#)

Feb 2015 - May 2015

Liferay Media Shop for Public Libraries

Media shop for public libraries offering more than 160,000 products (provided by more than 2,300 publishers) in different formats, based on Liferay.

- Implementing ReST-Services
- Datamanagement
- Template editing

[Detailed description](#)



Projects..

Aug 2014 - Nov 2014
Feb 2014 - May 2014

Eclipse OpenCms-Cmis-Plugin

The plugin has been developed for usage with the OpenCms-Cmis-interface and offers read/write-access to one or multiple OpenCms-VFS, synchronization- and conflict-handling-functionality, an OpenCms-module project type and deploy-on-save-functionality, among others.

- Definition of functional requirements and technical conception
- GUI-Development based on Eclipse SWT/JFace
- Cmis-/Atompub synchronization with Apache Chemistry

[Detailed description](#)

Jul 0014 - Jul 0014

Thread-based JIT-Classloader for Tomcat Server

Configurable dynamic classloader to reload modified classes and resources from selected parts of the classpath during runtime.

- Definition of functional requirements and technical conception
- Development and quality assurance

[Detailed description](#)

Jan 2014 - Feb 2014
Oct 2012 - Nov 2012
Sep 2011 - Apr 2012
Nov 2010 - Apr 2011

Onlineshop and Customer Service Area for Internet-/Contract Phone Provider

Customer-self-care area containing numerous forms allowing customers to edit their personal data and configure their products, realized as an OpenCms-module.

- MVC-connectivity to third-party interface
- Definition of functional requirements and development of auxiliary frameworks

[Detailed description](#)

Nov 2012 - Jan 2013

Liferay Media Shop

Media portal offering a wide choice of audio books, eBooks, eGames, software and videos as well as books, DVDs, blue-ray- and audio-cds.

- Design and development of a voucher-portlet
- Connectivity to shopping-cart- and financing-interface
- Extension of the administration hook

Nov 2014 - Dec 2014
Oct 2013 - Jan 2014

Flexible Modular System for Physician's Web Sites

Collection of OpenCms-modules, allowing to create a sectoral web site with individual layout very quickly.

- Definition of functional requirements and technical conception
- Development of OpenCms-modules and extensions



Projects..

- Apr 2013 - Aug 2013 **Subscription Shop System 'Presents for Dogs', based on Oxid**
Support in finalizing the project, completing tickets shop/administration area, integration of DHL- and Paypal connectivity.
- Sep 2009 - Dec 2009 **Web Portal in Telecommunications Industry**
CoreMedia-portal including shop for DSL-, fixed network and mobile service products.
- Dynamization of templates and integration into CMS
 - Design and development of a taglib for GUI components
 - CMS data-types
 - Integration of ajax functionality
- Jun 2008 - Oct 2008 **Web Site of an Automobile Manufacturer**
Extensions to the areas CRM, car-configurator, used-car and dealer locator.
- Development of GUI-beans and corresponding controllers
 - Development and dynamization of Jsp-templates based on a company-owned framework
- Jan 2008 - Feb 2008 **Tariff Comparison Portal**
Comparison of electricity-, gas-, car insurances- and dsl-provider rates based on individual user details.
- Development of business logic and servlets
 - GUI-Development
- Apr 2010 - Oct 2010 **Configuration- and Internationalization-Tool**
 Nov 2008 - Jan 2009 *Tool to configure and translate online services of an automobile manufacturer for multiple*
 Mar 2008 - May 2008 *markets.*
 Dec 2005 - Jun 2006
- Technical conception
 - Servlet- and GUI-Development
 - Live-server administration
 - Detailed documentations and manuals

[Detailed description](#)



Yellow Pages for Forestry Operations and Forest Owners

The application allows forestry operations companies to create a representing profile along with detailed information on the services they provide and the geographic regions they work within. Forest owners, on the other hand, are able to selectively find a company that fulfill their demands both professionally and locally.

A company's operation areas can be provided visually by selecting regions (Gemeinde, Landkreis, Bundesland) in a map, or, freely by uploading a WKT file. Multi-layered maps are delivered by a local GeoServer-instance and displayed using OpenLayers.

The search results are determined on the basis of geographic area intersections of suitable companies. The corresponding DB queries were developed as native queries using the PostGIS extension.

Persistence and business logic for the whole application is completely encapsulated within a TomEE application server and is reachable for the web application solely via a ReST interface. Special wrappers for accessing the GeoServer have been developed, to allow hiding the Geo-services completely from public world.

A clear, slim architecture and a complete conformity with Java EE standards has been emphasized, thereby consciously doing without more complex frameworks like Spring.

The web application has been developed according to MVC, where the controller tier is responsible solely for display logic. The application has been delivered to the frontend team as fully functional JSF templates without layout.

The project has been realized vastly according to kanban.

Realization

Role





Berlin

Software Design, Development, Test

Tasks

- Consulting in functional demands
- Technical conception
- Modelling and implementing persistence layer
- GIS Data management, WMS, WFS
- Implementing business logic
- Implementing ReST-Services
- Implementing ReST-Clients and rendering logic
- CI processes
- QA, test, documentation

Project setup

-  Java 8 / Java EE 7
-  TomEE, Tomcat 8.5, Geoserver
-  Linux
-  Postgres, PostGIS
-  Eclipse
-  Gradle
-  Git
-  JIRA

Tools, strategies

Java 8+, JPA / JTA, OpenJPA, Geronimo Transaction, PostgreSQL, PostGIS Extension, OpenWebBeans, JAX-RS, CXF, MyFaces, PrimeFaces, Servlet API / JSP, JSTL, EL, TomEE, Tomcat, Geoserver, Apache Http Server, AJP13 / mod_jk, mod_proxy, GIT, Gradle, Jenkins, JIRA, Apache Shiro, Apache Velocity, Apache POI, Apache PDFBox, Kanban, GIS, OpenLayers



Service Portal for Communities in Forestry Operations

The portal offers extensive assistance for the daily business of forestry operation communities. Among the functionality is a complete members- and plots-management including joint heirships and proportionate area ownership, locations of wood stacks via maps, accounting and measure management, creation of circular letters and extensive import- and export functionality in various file formats.

A conceptual challenge has been the creation of consistent solutions for customers with very differing expectations and approaches.

Persistence and business logic for the whole application is completely encapsulated within a TomEE application server and is reachable for the web application solely via a ReST interface. A clear, slim architecture and a complete conformity with Java EE standards has been emphasized, thereby consciously doing without more complex frameworks like Spring.

Data security played a main role during development. Links to private documents or account activation has been combined additionally with SHA-256 tokens, to prevent unauthorized access as far as possible.

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Realization

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Project setup

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-  Postgres, PostGIS
-  Eclipse
-  Gradle
-  Git
-  JIRA

Tools, strategies

Java 8+, JPA / JTA, OpenJPA, Geronimo Transaction, PostgreSQL, PostGIS Extension, OpenWebBeans, JAX-RS, CXF, MyFaces, PrimeFaces, Servlet API / JSP, JSTL, EL, TomEE, Tomcat, Geoserver, Apache Http Server, AJP13 / mod_jk, mod_proxy, Gradle, Jenkins, GIT, JIRA, Apache Shiro, Apache Velocity, Apache PDFBox, Apache POI, OpenLayers, Kanban



B2B-/B2C-Service-Platform Cultural Events

The portal allows cultural facilities and event organizers to cooperate directly with tourism-organizations. End customers can be informed about current local events directly at a hotel front desk for example, and get the possibility to make reservations and to buy tickets for specific events.

The application has grown for many years, and should be optimized to make future maintenance, extension and bug fixing easier and safer. This would include removal of redundancy and generalizing and centralizing functionality.

As an example, socket-communication with an external system has been centralized and settled to a consistent usage of JAXB, so that business logic could be removed from domain classes, and the classes itself could be generated via xjc in an automated way using ant. Hundreds of lines of syntactically identic code became obsolete, reducing error-proneness and maintenance effort drastically.

Performance could be improved by removing unneeded repeating actions, for example by holding event data in singleton instances that will update themselves only when actually new event data is available.

Finally, by using a customized mini-MVC-system, business logic can now be kept out of JSPs and delegated to corresponding controllers, themselves using centralized and generic functionality.

Realization

Role







Berlin

Design, Development, Test

Tasks

- Technical conception
- Development of a generic socket request system
- Generic interpretation of socket response using JAXB
- Creation of XML-Schemas (XSD)
- Generating domain classes via xjc/ant
- Automated, context-dependent application initialization
- Thread-based WatchServices
- I18n
- Prototype creation and documentation

Project setup

-  Java 7
-  Tomcat 7
-  Linux
-  Eclipse Luna, UMLDesigner
-  Ant
-  Git

Tools, strategies

Java 7, Servlet API / JSP, JSTL, EL, Tomcat, XML, XSD, DTD, JAXB, JDK xjc, Ant, GIT, UML Designer, Sockets



Liferay Media Shop for Public Libraries

Media shop for public libraries offering more than 160,000 products (provided by more than 2,300 publishers) in different formats.









Target audience of the shop are public libraries and library-groups, which, after having logged in, not only can order new products, but also are informed about their current stock, as well as former orders and corresponding order-states.

The shop is based on a Liferay-system, into which components like shopping-cart, order management, product search etc. have been integrated as standalone-portlets, which communicate among each other internally and externally (article-import, order-process, delivery-process) via JMS and ReST-services (Spring, Spring Boot).

The project workflow has been largely in conformity with scrum, task management using JIRA (including GIT-support), CI via Maven-builds initiated by Jenkins.

Media shop for public libraries offering more than 160,000 products (provided by more than 2,300 publishers) in different formats, based on Liferay.

- Implementing ReST-Services
- Datamanagement
- Template editing

Realization	Berlin Karlsruhe
Role	Development, Testing
Tasks	<ul style="list-style-type: none"> • Implementing ReST-services for checkout, stock-comparison, cancellation of orders, leaflet, library-selection (Spring) • RDMS table structures and corresponding Entity Beans • DAO-implementations with Spring • Performance tuning, SQL, JPQL • Dynamization of Freemarker- and Velocity-templates • Test/JUnit • QA
Project setup	<ul style="list-style-type: none">  Java 7, JEE 6  Tomcat 7  Linux  Postgres  Eclipse Luna w/ Liferay Plugins SDK  Maven, Jenkins  Git  JIRA w/ GIT Plugin
Tools, strategies	Java 7, JPA / JTA, JAX-RS, CDI, Liferay 6, Spring Framework, Spring Boot, PostgreSQL, SQL, Tomcat, Maven, GIT, Jenkins, JIRA, HTML / Web, Freemarker, Apache Velocity



Eclipse OpenCms-Cmis-Plugin

The plugin's purpose is to facilitate and speed up the development of OpenCms modules. It provides the functionality for a direct publishing of resources such as template- and formatter-Jsps, content-definition-files, resource bundles as well as Java-classes, without the need for a separate deployment. Changes in resources are therefore available in the (remote) OpenCms system as soon as they are saved in Eclipse.

The realization of a JIT-classloader for Tomcat has been shifted to a separate project (see "Thread-based JIT-Classloader for Tomcat Server").

There are no special requirements requested to the local workspace, so that any OpenCms-VFS content can be easily put under version control. Furthermore, the local stage of development can be shared and synchronized among multiple OpenCms instances.

More features:

- Initialization of a web project as OpenCms-Module-project
- Conflict-management / Comparison local - remote
- Synchronization among multiple OpenCms-VFS
- Auto-deploy on save
- Editing VFS-resource properties from within eclipse
- Recursive touch functionality

Realization

Role









Tasks

Berlin

Design, Development, Test

- Definition of requirements and feasibility
- Implementing the core-plugin: Eclipse workspace access, synchronization local-remote, deploy to/fetch from VFS, conflict management, auto-deploy on save, endpoint-management
- Core services for VFS-access and local workspace
- Conception GUI, usability
- Implementing the GUI-plugin: Views, wizards, dialogs, menus, preferences, error-handling, long-running-processes
- Implementing the help-plugin, context-help
- Configuration of the Tomcat JIT classloader from within Eclipse
- Feature-/update process
- QA
- Documentation and manual

Project setup

-  Java 7, Java EE6
-  Tomcat 7
-  Linux, Windows
-  MySQL
-  Eclipse Kepler, Luna
-  Ant
-  Git
-  Mantis

Tools, strategies








Java 7, OSGi, Chemistry / CMIS, Eclipse Plugins, Eclipse SWT / JFace, OpenCms, GIT, Mantis



Thread-based JIT-Classloader for Tomcat Server

The purpose of this project has been to provide a possibility to make changes in resources and classes from certain parts of the classpath directly available in a local Tomcat server as soon as they are saved/compiled via the IDE during development (A functionality similar to JRebel, but significantly less comprehensive), in order to reduce the number of re-deployments and server restarts (or even make them obsolete) without being confronted with the known memory-leak problems.

An extension of the Tomcat WebappClassLoader has been developed, allowing to bypass the server classloader for arbitrary classes and resources located anywhere in the file system, and, that way, provide a "per-request" loading strategy. The lifetime of the loader is limited to several seconds (configurable).

Realization	Berlin
Role	Design, Development, Test
Tasks	<ul style="list-style-type: none"> • Definition of requirements and feasibility • Tomcat classloading interface • Writing and parsing configuration • Identificating resources, classes, packages to be loaded dynamically and resolve their dependencies to other resources, delegation of the loading process • Interface to Catalina logging • QA • Documentation and manual
Project setup	<ul style="list-style-type: none">  Java 7, JEE 6  Tomcat 7  Linux  Eclipse Kepler, Luna  Apache Ant  Git  Mantis
Tools, strategies	Java 7, Catalina Loader, Class Loading Delegation Model, Log4j, GIT, Mantis











Onlineshop and Customer Service Area for Internet-/Contract Phone Provider

The customer's web site splits basically into a general section, a shop (internet-, phone-, digital-TV- and mobile-products) and a customer-selfcare area. The latter provides, beyond invoice-download and maintenance of personal data, numerous further options, like for example product-configuration, phonebook entry, SIM-card activation, connection availability or changing a DSL-provider.

Central to the project was the connection of the customer-selfcare area to the interface of a third-party supplier, the preparation of delivered raw data for the GUI, as well as the delivery of user input back to the interface and the interpretation and handling of corresponding possible responses.

The whole customer selfcare area has been integrated as a module into OpenCms.

For running various development- and testing environments a mock-system has been developed, which could simulate any possible reply from the interface and generate potential error states. Also, a simple framework has been developed, allowing to provide generic testing of the interface in a quick and simple way.

Realization	Berlin Karlsruhe
Role	Design, Development, Test
Tasks	<ul style="list-style-type: none"> • Definition of requirements and feasibility • MVC-connection to third party interface, implementation of model tier and dynamization of Jsp-templates • Definition of new requirements to the interface and close coordination with the developers • Conception and development of a dynamic mock provider, including administration surface for development- and test-systems • Conception of an administration tool for FAQ (import/export, categorization, user-rating, filtering, sorting..) • Conception and development of a generic form-framework • Development of a framework for evaluating results delivered by the interface • Generic error handling / input validation • QA • Documentation
Project setup	<ul style="list-style-type: none">  Java 6, JEE  Tomcat 6, Jboss 5  Linux  Postgres  Eclipse Ganymede, Juno  Apache Maven, Ant  Git, Subversion  JIRA
Tools, strategies	Java 6, OpenCms, Servlet API / JSP, JSTL, EL, Tomcat, JBoss, JQuery, Maven, Ant, GIT, Subversion, JIRA



Configuration- and Internationalization-Tool

Tool supporting configuring and translating online automotive services for different markets and languages.

Configuration and internationalization of the world-wide web site of the company is done mainly via property-files. According to a complex system of pre- and postfixes, every property key may have many different values assigned, depending on the calling context.

The project aimed to make the maintenance of those very complex and big files easy and clear. Properties can be generated based on any development- and rollout states, and are guaranteed to be structured consistently.

Integrated areas included, among others, Car Configurator, CRM modules, Dealer Locator, Personalized Section, Used and New Cars, Car Rental as well as Dialogs for Garage Appointment, Test Drive, Direct Contact etc., altogether some hundred pages per release.

The application provides a sandbox-system with complex authorization rules, which allows creating images of corresponding modules for specific markets and languages, configuring and translating pages, and controlling the result directly in a preview. Basis of such an image can be current development states, daily builds or already rolled out versions, which can be integrated into the system unmodified. That way, modules can be configured and translated already during their development.

Any changes are saved with to currently edited sandbox. After completion of the work and approval by the person responsible for the edited market, the property files are generated, structured and cleaned, and the sandbox is archived.

The tool supports RTL notations and is used for 39 markets all over the world, including United Arab Emirates, China, Vietnam etc.








Realization
Role

Stuttgart Mainz
Design, Development, Test

Tasks

- Support in definition of requirements, technical conception
- Automated extraction of bundle- and key names and values used with a page, new ResourceBundle implementation
- Development of a mock system with automatic initialization
- Complex role and permission system
- Parsing and generating XML
- Communication among multiple web applications, cross context
- Automated release update from svn via bash/cron
- Generation of adjusted property files
- Build and deployment processes
- Server administration
- Documentation, manuals

Project setup

-  Java 5
-  Tomcat
-  Linux, Windows
-  Eclipse
-  Apache Ant
-  Subversion
-  Bugzilla

Tools, strategies

Java 6, Tomcat, Apache Http Server, AJP13 / mod_jk, mod_proxy, svnserve, bash, ssl, Servlet API / JSP, XML, XSD, DTD, JavaScript, Ant, Subversion, Bugzilla, Log4j