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Java User Group



Hands-on Development of Web Applications with Java EE 6

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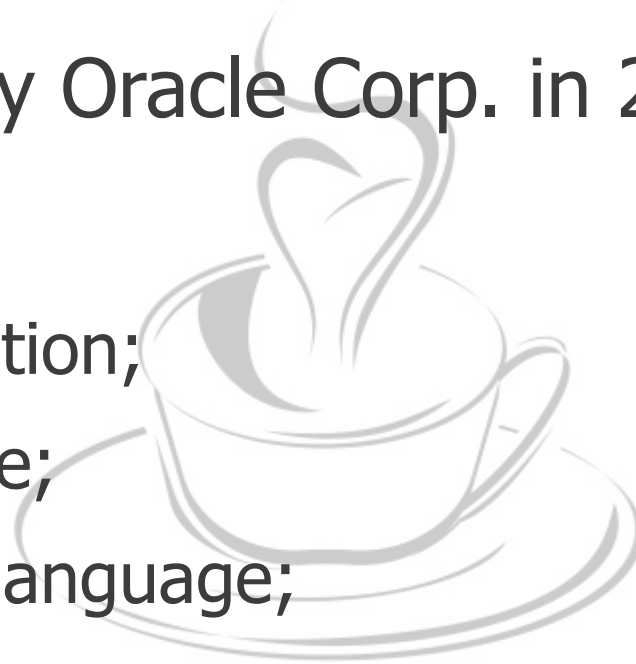
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Java

- Created by Sun Microsystems in 1995
- Sun acquired by Oracle Corp. in 2009-2010
- Java Platform:
 - Open specification;
 - Virtual machine;
 - Programming language;
 - Development kit;
 - APIs (SE, EE, ME, ...);
 - Community (JCP, JUGs, ...).

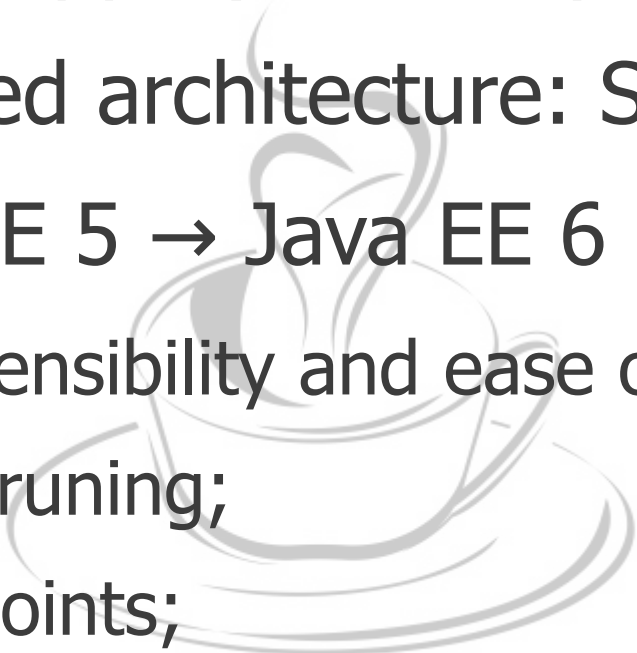


Java Technology

- Java Platform, Standard Edition (Java SE) 7;
- Java Platform, Enterprise Edition (Java EE) 6;
- Java Platform, Micro Edition (Java ME) 3;
 - Java Embedded;
 - JavaTV;
- JavaFX 2 (rich client platform development);
- Java Card 3;
- Java DB (formerly Apache Derby).



Java EE 6

- For *enterprise* apps (scalability, security, ...);
 - Container-based architecture: Servlet, EJB, ...;
 - J2EE → Java EE 5 → Java EE 6 (JSR 316);
 - Flexibility, extensibility and ease of development;
 - Profiles and pruning;
 - Extensibility points;
 - Etc.
- 

Java EE 6 Components

Bean Validation	Common Annotations for the Java Platform
CDI (Contexts and Dependency Injection) for the Java EE Platform	EJB (Enterprise Java Beans) / Entity Beans
EL (Expression Language)	Interceptors
JACC (Java Authorization Service Provider Contract for Containers)	JASPIC (Java Authentication Service Provider Interface for Containers)
Java EE Deployment API	Java EE Management API
JavaMail	JAX-RPC (Java API for XML-based RPC)
JAX-RS (Java API for RESTful Web Services)	JAXB (Java Architecture for XML Binding)
JAXR (Java API for XML Registries)	JCA (Java EE Connector Architecture)
JMS (Java Messaging Service)	JPA (Java Persistence API)
JSF (JavaServer Faces)	JSP (JavaServer Pages)
JSTL (Standard Tag Library for JavaServer Pages)	JTA (Java Transaction API)
Managed Beans	Servlet
Web Services Metadata for the Java Platform	

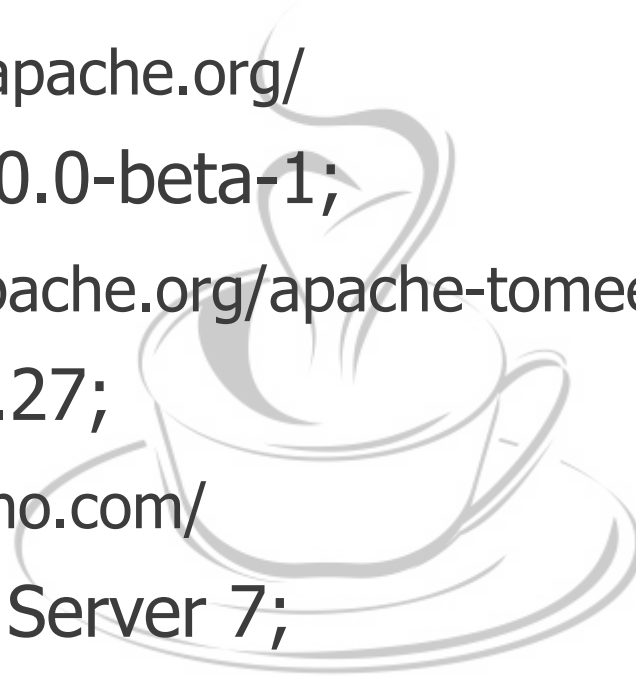
Blue = new in Java EE 6 / Red = Candidates for pruning in Java EE 7

Java EE 6 Web Profile

Bean Validation 1.0	Common Annotations for the Java Platform 1.1
CDI (Contexts and Dependency Injection) for the Java EE Platform 1.0	EJB (Enterprise Java Beans) 3.1 Lite
EL (Expression Language) 2.2	Interceptors 1.1
JACC (Java Authorization Service Provider Contract for Containers)	JASPIC (Java Authentication Service Provider Interface for Containers)
Java EE Deployment API	Java EE Management API
JavaMail	JAX-RPC (Java API for XML-based RPC)
JAX-RS (Java API for RESTful Web Services)	JAXB (Java Architecture for XML Binding)
JAXR (Java API for XML Registries)	JCA (Java EE Connector Architecture)
JMS (Java Messaging Service)	JPA (Java Persistence API) 2.0
JSF (JavaServer Faces) 2.0	JSP (JavaServer Pages) 2.2
JSTL (Standard Tag Library for JavaServer Pages) 1.2	JTA (Java Transaction API) 1.1
Managed Beans 1.0	Servlet 3.0
Web Services Metadata for the Java Platform	

Java EE 6 Web Profile Compatible

- Apache Geronimo 3.0-beta-1;
 - <http://geronimo.apache.org/>
- Apache TomEE 1.0.0-beta-1;
 - <http://openejb.apache.org/apache-tomee.html>
- Caucho Resin 4.0.27;
 - <http://www.caucho.com/>
- JBoss Application Server 7;
 - <http://www.jboss.org/jbossas>
- Oracle GlassFish Server 3.x;
 - <http://glassfish.dev.java.net/>



Hands On!

- Develop the “Java Hostel” website:
 - Guest registration and login;
 - Room/bed registration by an administrator;
 - Search and book available beds.
- No time to show installation and setup:
 - JBoss Application Server 7 Web Profile;
 - Eclipse IDE 3.7 (Indigo) for Java EE Developers;
 - JBoss Tools plug-in for Eclipse;
 - MySQL Database 5;
- If you have problems, I can blog about it.

Available Software

Check the items that you wish to install.



Work with:

Find more software by working with the ["Available Software Sites"](#) preferences.

Name	Version
<input type="checkbox"/> JBoss Application Development	
<input type="checkbox"/> JBoss Business Intelligence, Reporting and Charting	
<input type="checkbox"/> JBoss Cloud Development Tools	
<input type="checkbox"/> JBoss Data Services	
<input type="checkbox"/> JBoss Maven Support	
<input checked="" type="checkbox"/> JBoss Web and Java EE Development	

Details

[More...](#)

- Show only the latest versions of available software
 - Hide items that are already installed
 - Group items by category
 - Show only software applicable to target environment
 - Contact all update sites during install to find required software
- What is [already installed?](#)



New Server

Define a New Server

Choose the type of server to create

[Download additional server adapters](#)

Select the server type:

- JBoss AS 5.1
- JBoss AS 6.x
- JBoss AS 7.0**
- JBoss AS 7.1
- JBoss Enterprise Middleware
- JBoss Application Server 7.0

Server's host name:

Server name:

[?](#)

New Server

JBoss Runtime



JBoss Application Server 7.0

A JBoss Server runtime references a JBoss installation directory. It can be used to set up classpaths for projects which depend on this runtime, as well as by a "server" which will be able to start and stop instances of JBoss.

Name:

Home Directory:

JRE:

Configuration file:

[?](#)

MySQL Workbench

Admin (mysql@localhost) x

File Edit View Database Plugins Scripting Community Help

MANAGEMENT

- Server Status
- Startup / Shutdown
- Status and System Variables
- Server Logs

CONFIGURATION

- Options File

SECURITY

- Users and Privileges**

DATA EXPORT / RESTORE

- Data Export
- Data Import/Restore

Users and Privileges

Server Access Management Schema Privileges

Users

- <anonymous>
- debian-sys-maint
- javahostel**
- root

Select a user and pick the privileges it has for a given Schema and Host combination.

Host	Schema	Privileges
localhost	javahostel	ALTER, ALTER ROUTINE, CREATE, CREATE ROUTINE, CREATE TEMPORARY TA

Schema and Host fields may use % and _ wildcards. The server will match specific entries before wildcarded ones.

Delete Entry Add Entry...

The user 'javahostel', when connecting from the host 'localhost', will have the following access rights:

Object Rights

- SELECT
- INSERT
- UPDATE
- DELETE
- EXECUTE
- SHOW VIEW

DDL Rights

- CREATE
- ALTER
- REFERENCES
- INDEX
- CREATE VIEW
- CREATE ROUTINE
- ALTER ROUTINE
- DROP
- TRIGGER

Other Rights

- GRANT OPTION
- CREATE TEMPORARY TABLES
- LOCK TABLES

Select "ALL" Unselect All Revert Save Changes

SQL Editor closed

<JBoss Home>/modules/com/mysql/main/

mysql-connector-java-5.1.19-bin.jar

Download it from <http://www.mysql.com/downloads/connector/j/>

module.xml

```
<module xmlns="urn:jboss:module:1.0" name="com.mysql">
  <resources>
    <resource-root path="mysql-connector-java-5.1.19-bin.jar"/>
  </resources>
  <dependencies>
    <module name="javax.api"/>
  </dependencies>
</module>
```

<JBoss Home>/standalone/configuration/
└─ standalone.xml

**Make sure the
server is NOT
running before
making these
changes!**

```
[...]  
<datasources>  
  [...]  
  <datasource jndi-name="java:/jboss/datasources/JavaHostel"  
pool-name="javaHostelPool" enabled="true" jta="true" use-java-  
context="true" use-ccm="true">  
    <connection-url>  
      jdbc:mysql://localhost:3306/javahostel  
    </connection-url>  
    <driver>mysql</driver>  
    <security>  
      <user-name>javahostel</user-name>  
      <password>javahostel</password>  
    </security>  
    <statement>  
      <prepared-statement-cache-size>100  
        </prepared-statement-cache-size>  
      <share-prepared-statements/>  
    </statement>  
  </datasource>  
  
  <drivers>  
    [...]  
    <driver name="mysql" module="com.mysql"/>  
  </drivers>  
</datasources>
```

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Suspendisse pharetra eros molestie

Vivamus eu enim vitae neque its posuere rutrum. Nam accumsan turpis at turpis molestie a convallis forte tor ornare. [read more](#)

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Mauris at tortor non mauris rhoncu vesti bulum. Praesent purus nuncin com modo metus. Mae cen astin cida tellus et risus com modo labor tised aliqne.

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- Quisque facilisis suscipit elit
- Lacus et dictum tristique
- Eeros ac tincidunt aliquam
- Nullam commodo arcu non facilisis
- Duis commodo erat

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Services

Donec eget ligula metus. In sapien nibh, tincidunt non ultricies vel, molestie quis massa.

- Cras metus lectus
- Mauris vitae lacinia tortor
- Suspendisse potenti
- Pellentesque tincidunt magna

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Gallery



one



two



three



four



five

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downloaded from:
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See also:
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