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|  | **JEE** |
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| **[JAva enterprise edition notes]** |
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1. General Concepts

1.1. Definitions

**Dependency Injection** : Allows the JavaEE container to automatically insert references to other required components or resources, using annotations. For example to use another bean inside a bean (CDI).

**Java EE Component:** A self contained functional software unit that is assembled into Java EE application with its classes and files that communicates with other components.

**Servlets :** Tomcat, Glassfish, JBoss, WebLogic. This component is between the JSP-JSF Java structures and the client,

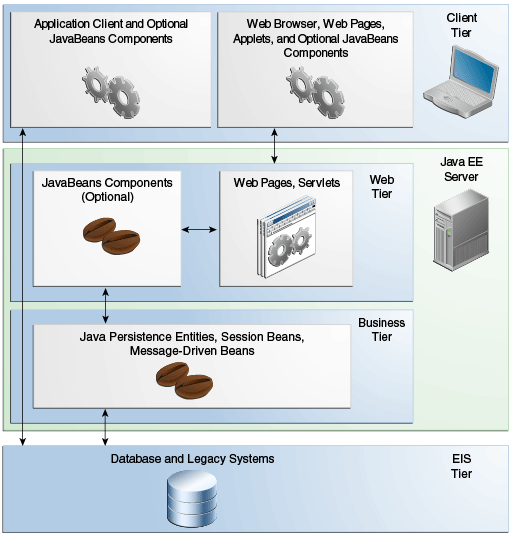
* Getting the requests and mapping it via web.xml
* Generating HTTP Responses
* Making the HTTP methods available by extending HTTPServlet

**Containers :**

**Metadata:**

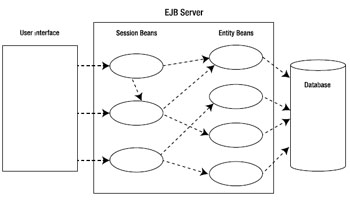
1.2. Multitiered Structure

* Client tier components run on the client machine
* Web tier components run on the Java EE Server
* Enterprise Information System (EIS Server)
  + Database or Legacy machines at the backend.



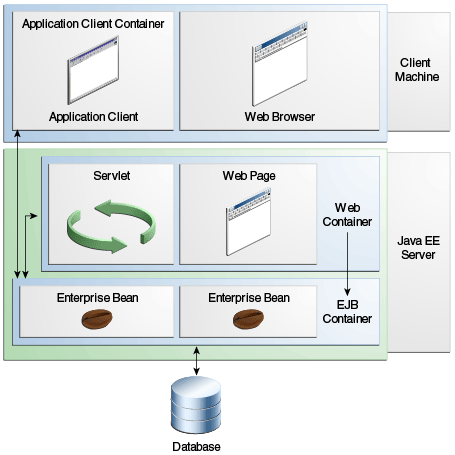
2. Enterprise Java Beans (EJB)

Enterprise bean is a building block that can be used alone or with other enterprise beans to execute business logic on the Java EE server.



2.1. Containers

Each component have to be assembled and deployed to it's container. The containers will provide the functionality with low level, platform specific background like JNDI, Java EE remote connectivity between clients and enterprise beans etc.



2.2. Session Beans

Every session bean consist of a bean interface and a bean class. If the interface is not created, The compiler will create a bean interface for you that is a map of the public methods available in the bean class.

Bean Class :

Must implement javax.ejb.SessionBean OR

Must have Metadata descriptor : @Stateless

@Stateful

@Stateless

@Singleton : One and only instance (like design pattern)

2.3. Entity Beans

2.4. Message Driven Beans

2.5. Annotations

2.5.1. Access Level Annotations

Access level annotations are inherited. So it depends on the interface if the bean is implementing one.

@LocalBean : Same as @Local but without specifying the business interface.

@Local : Can only be accessed from local components running in same JVM.

@Remote : Can be accessed from remote clients that running in another JVM.

No-Annotation : @LocalBean(No-interface View).

3. Java Servlet Faces Beans

3.1. Model View Controller

3.1.4. ViewScoped Bean and SessionScoped Bean

The SessionScoped Managed Bean's instance is able to be used on all other pages in the same HTML Session. So the all page components that related with the members of this managed bean will share the same values.

The ViewScoped Managed Bean's instance is valid while on the same jsp view postbacks without any navigation/redirect. So each element that related with this managed bean's members, will share the same values.