Interceptors:

Embeded EJB container

Java+xml+annotations

AOP(aspect orientated programming)

New features:

-annotations

-callback methods and listeners

-interceptors

-DI(dependency injection)

Business logic-> SessionBean

Workflow logic -> MessageDrivenBean

JPA entity wrapped within SessionBean, no entity bean

Session beans-stateless (SLSB)

-stateful SFSB

-singleton (3.1+)

MDB->SLSB

-no client orientated

Entity bean ->BMP

SessionBean @Stateless

@Stateful

@Singleton

MessageDriver @MessageDriven

JPA Entities @Entity

@EntityManager

EJB Access Mode:

-default mode: local access(not over the network, only container)-> other EJB only in the same context

-remote ->same context and outside context

-web service ->SB and MDB – web services

->manages wsdl/soap mappings

|  |  |
| --- | --- |
| Bean Type | Annotation |
| SB | @Local,@Remote,@LocalBean(EJB 3.1),@WebService |
| MD | @WebService |
| JPA | N/A |

EJB Instance Management

In container-managed,container manages:

-transaction

-roles

-security

-Persistence and entities (persistence context)

In bean-managed, bean manages:

-transaction

-persistence

Manually management

Transactions @TransactionManagement(Container, Bean)

Security @RunAs()

@RolesAllowed

EJB access->no direct client access

Container instantiates EJBObject(proxy) jndi lookup

DI lookup EJB instance

Lifecycle phase:

-does not exist-> no bean instance in memory

-post construct/ not ready ->bean instance exists but not ready for interaction

-ready->exists,initialized and ready for interactions

-pre-removal->about to be removed