**Hibernate JPA**

**Both are orm**

Annotation same.

hibernate.cfg.xml persistence.xml

database details

drivername, url, username, password, mapping file and dialect class.

SessionFactory EntityManagerFactory

Session EntityManager

Transaction EntityTransaction

save() persist()

delete() remove()

update() merge()

find() get()

JPA project

If we want to retrieve more than one records in JPA we need to use JPQL like HQL.

select emp from Employee emp HQL or JPQL Employee is entity class name and emp is object.

Product Orders one to many relationship

Employee skillset one to many relationship

Id Name salary skillset

1 Steven 34000 Java, Python

Employee table

PK

Id Name Salary

100 Steven 34000

create table employee(id int primary key,name varchar(20), salary float);

Skillset table

PK FK

Ssid SName esid

1 Java 100

2 Python 100

create table skillset(ssid int primary key auto\_increment,sname varchar(30), esid int, foreign key(esid) references employee(id));

Foreign key can allow null value.

In Database using PK and FK we connected employee and skillset table.

In Java side

Employee has skillset

Skillset has employee

Trainer Students

Trainer can handle more than one student.

Spring MVC with JPA

Create dynamic web project with version 2.5 and convert this project to maven project.

Spring mvc

Spring jdbc

Spring orm

Mysql connector

Jpa

Jstl

In spring MVC no persistence.xml file. All database details and mapping file details we write inside dispatcher-servlet.xml file.

In Dao layer we do DI for EntityManagerFactory.

*LocalContainerEntityManagerFactoryBean*

Is one of the pre defined class part of spring orm module which help to integrate spring with jpa orm tool. This class help use to do DI for EntityManagerFactory inside Dao layer.