# JDBC\_JPA\_Hibernat PREP

Q - What is JPA ?

Ans - Java Persistence API. Aim to simplyfy DB operations for Java developers using ORM (Object Relational mapping).

a. Its POJO based b. XML Configuration or annotation based configuration c. Built around patterns and best practices d. JPA removes lots of boilerplate code e. Spring handles the configuration part

We are following Spring and Hibernate course on pluralsight.com and name of application we are building is Scaffold appli cation.

This particular application is using Java 7 and Tomcat 7

JPA is an abstraction layer for database.

persistence.xml file - this is the file where we define datasource, also define allowed transactions, caching etc. This file is used in the non-spring projects. In spring based project also we will use this file, however it will be empty. Location of this file will be, src/main/resources/META-INF/persistence.xml. We will use jpaContext.xml instead. whatever we usually put in persistence.xml will go in the jpaContext.xml file.

Entity Manager Factory - LocalContainerEntityManagerFactoryBean. Very important point to note that "ORM was invented to bridge the gap between object oriented programming language like java and relational databases like oracle, mysql for example.

A very important question or say discussion

Hibernate directly or JPA using Hibernate ??? ..ok so JPA using Hibernate is more safe or say better approach...as this gives option to switch JPA vender if needed. Below are some important annotations used @PersistenceContext, @Service, @Repository, @Transactional. Essentially there are 4 type of joins

@OneToOne, @OneToMany, @ManyToOne, @ManyToMany. These can be used in various configurations. Thease are Unidirectional, Bidirectional and Cascade. Remember that there are 2 types of fetch types, FetchType.LAZY and FetchType.EAGER. Lazy -Queries the database when that property is called. EAGER - Queries the database when Object is created. Do you know full form of JPQL - JPQL stands for "Java Persistence Query Language". This is one of the touughest concept of while learning Hibernate.