



JPA Interview Questions



Interview Questions

A list of top frequently asked jpa interview questions and answers are given below:

1) What is Java Persistence API?

Java Persistence API is a lightweight, POJO based framework used to persist objects in a relational database system.

2) Does JPA performs the actual task like access, persist and manage data?

No, JPA is only a specification. The ORM tools like Hibernate, iBatis and TopLink implements the JPA specification and perform these type of tasks.

3) What is object-relational mapping?

The object-relational mapping is a mechanism used to access, persist and manage an object in a relational database system. It converts attributes of programming code into columns of the table.

4) What are different directions of entity mapping?

The direction of a mapping can be either unidirectional or bidirectional. In unidirectional mapping, only one entity can be mapped to another entity, whereas in bidirectional mapping each entity can be mapped or referred to another entity.

5) What are the different types of entity mapping?

Following are the types of object-relational mapping: -

- One-To-One mapping
- One-To-Many mapping
- Many-To-One mapping
- Many-To-Many mapping

6) What is an orphan removal in mappings?

If a target entity in one-to-one or one-to-many mapping is removed from the mapping then remove operation can be cascade to target entity. Such target entities are known as orphans and the `orphanRemoval` attribute can be used to specify that orphaned entities should be removed.

7) Explain persistence life cycle of an object?

In persistence life cycle, the object lies in 2 states: -

- Transient - This is an initial state where an object is just declared.
- Persistence - In this state, an object is associated with session and either saved to a database or retrieved from database.
- Detached - The object enters into a detached state when a session is closed.

8) What are the different types of identifier generation?

Following are the types of id generation strategy required to specify with `@GeneratedValue` annotation: -

- Automatic Id generation - In this case, the application doesn't care about the kind of id generation and hand over this task to provider.
- Id generation using a table - The identifiers can also be generated using a database table.

- Id generation using a database sequence - Databases support an internal mechanism for id generation called sequences. So, these database sequence can be used to generate identifiers.
- Id generation using a database identity - In this approach, whenever a row is inserted into the table, a unique identifier assigns to the identity column that can be used to generate the identifiers for objects.

9) What is an entity?

An entity is a lightweight object that provides Java representation of data from database table

10) What are the properties of an entity?

Following are the properties of an entity that an object must have: -

- Persistability
- Persistent Identity
- Transactionality
- Granularity

11) What is the role of Entity Manager in JPA?

An entity manager manages an object referenced by an entity. It can also read, update and delete an entity.

12) What are the requirements for an entity class?

An entity class must have the following the requirements: -

- The class must have no-argument constructor.
- The class can't be final.
- The class must be annotated with @Entity annotation.
- The class must implements Serializable interface if an entity instance be passed by value as a detached object.

13) What is the purpose of Java collections in JPA?

In JPA, Java collections are used to persist the object of wrapper classes and String.

14) What type of objects can be stored in the JPA collections mapping?

Following are the type of objects that JPA allows to store: -

- Basic Types
- Entities
- Embeddable

15) What type of collections can be used in JPA?

To store multivalued entity associations and a collection of objects, following types of Java collections is used: -

- List
- Set
- Map

16) What is the purpose of cascading operations in JPA?

If we apply any task to one entity then using cascading operations we make it applicable to its related entities also.

17) What are the types of cascade supported by JPA?

Following is the list of cascade type: -

- PERSIST
- MERGE
- DETACH
- REFRESH

- REMOVE
- ALL

18) What is JPQL?

The Java Persistence Query language (JPQL) is a part of JPA specification that defines searches against persistence entities. It is just an extension of Enterprise Java Beans Query language adding various operations like join operations, projections, bulk updates and deletes.

19) What are the features of JPQL?

Some of the important features of JPQL are: -

- It is simple and robust.
- It is a platform-independent query language.
- JPQL queries can be declared statically into metadata or can also be dynamically built in code.
- It can be used with any type of database such as MySQL, Oracle.

20) What is Criteria API?

The Criteria API is just a specification that provides type-safe and portable criteria queries written using Java programming language APIs. It facilitates query-defining objects used to define query for entities and their persistent state.

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