PPT Java Assignment-8

Q1.What is ORM in Hibernate?

An ORM(Object Relation Mapper) tool simplifies the data creation, data manipulation and data access and It is a programming technique that maps the object to the data stored in the database.

Object Relational Mapper, is a piece of software designed to translate between the data representations used by databases and those used in object-oriented programming.

Q2.What are the advantages of Hibernate over JDBC?

1. Hibernate code will work well for all databases, for ex: Oracle,MySQL, etc. where as JDBC is database specific.
2. 2. No knowledge of SQL is needed because Hibernate is a set of objects and a table is treated as an object, where as to work with JDBC, one need to know SQL.
3. With the support of cache of hibernate, the data can be placed in the cache for better performance. Where as in JDBC the java cache is to be implemented.
4. Hibernate itself takes care of this mapping object with table using XML files so developer does not need to write code for this. JDBC supports only native Structured Query Language (SQL). Hibernate provides Hibernate Query Language (HQL) which is similar to SQL syntax.

Q3.What are some of the important interfaces of Hibernate framework?

The core interfaces of Hibernate framework are:

- Configuration
- SessionFactory
- Session
- Query

- Criteria
- Transaction

Q4.What is a Session in Hibernate?

A Session is used to get a physical connection with a database. The Session object is lightweight and designed to be instantiated each time an interaction is needed with the database. Persistent objects are saved and retrieved through a Session object.

The session objects should not be kept open for a long time because they are not usually thread safe and they should be created and destroyed them as needed. The main function of the Session is to offer, create, read, and delete operations for instances of mapped entity classes.

Q5.What is a SessionFactory?

SessionFactory is an interface. SessionFactory can be created by providing Configuration object, which will contain all DB related property details pulled from either hibernate.cfg.xml file or hibernate.properties file. SessionFactory is a factory for Session objects.

Q6.What is HQL?

Hibernate Query Language (HQL) is same as SQL (Structured Query Language) but it doesn't depends on the table of the database. Instead of table name, we use class name in HQL. So it is database independent query language.

Q7.What are Many to Many associations?

A many-to-many association is made between two entities where one entity can be associated with multiple other instances of the other entity.

Q8.What is hibernate caching?

Caching is a mechanism to enhance the performance of a system. It is a buffer memory that lies between the application and the database. Cache memory stores

recently used data items in order to reduce the number of database hits as much as possible.

Q9.What is the difference between first level cache and second level cache?

Sr. No.	Key	First level cache	Second level cache
1	Basic	First level cache is a session level cache and it is always associated with session level object	Second level cache is session factory level cache and it is available across all sessions
2	Enabled	It is enabled by default.	It is not enabled by default.
3	Availability	It is available for a session	It is available across all session.
4	Configuration	No Extra configuration required	We have to decide which concurrency strategy to use and also need to configure cache expiration and physical cache attributes.

Q10.What can you tell about Hibernate Configuration File?

As Hibernate can operate in different environments, it requires a wide range of configuration parameters. These configurations contain the mapping information that provides different functionalities to Java classes. Generally, we provide database related mappings in the configuration file. Hibernate facilitates to provide the configurations either in an XML file (like hibernate.cfg.xml) or properties file (like hibernate.properties).