1. *What is ORM?*

*ORM is the automated persistence of objects to the tables in a relational database.*

1. *What is Hibernate?*

*Hibernate is a framework that allows developers to map plain old java objects to relational database tables using XML configuration files.*

1. *Why do we need ORM tools like hibernate?*

*The main advantage of hibernate is that it protects developers to write SQL commands, A lot less code to write and it has better performance than JDBC.*

1. *What does need hibernate xml mapping file?*

*Hibernate mapping file tells hibernate which tables and columns to use to load and store objects.*

1. *DTD*
2. *Class Element*
3. *ID Mapping and Generation*
4. *Property Mapping*
5. *Unidirectional many to many association mapping*
6. *The most common methods of hibernate configuration?*

*Programmatic configuration*

*XML Configuration (hibernate.cfg.xml)*

1. *What are the important tags of hibernate.cfg.xml?*
2. *DTD*
3. *Database Connection Configuration*
4. *Specifies the SQL variant to generate*
5. *Size of Conn pool*
6. *Automatic generation of database schema*
7. *Mapping Files*
8. *What are the core interfaces of hibernate framework?*
9. *Session Interface*
10. *Session Factory Interface*
11. *Configuration Interface*
12. *Transaction Interface*
13. *Query and Criteria Interface*
14. *What is the general flow of Hibernate Communication with RDBMS?*
15. *Load the hibernate configuration file and create configuration object. It will automatically upload all hbm mapping files.*
16. *Create Session Factory from configuration object.*
17. *Get one session from this session factory.*
18. *Create HQL Query*
19. *Execute Query to get list containing Java objects.*
20. *What role does the Session interface play in hibernate?*

*Session is to create, read and delete operations for instances of mapped entity classes. It allows you to create query objects to retrieve persistent objects. It is not thread safe.*

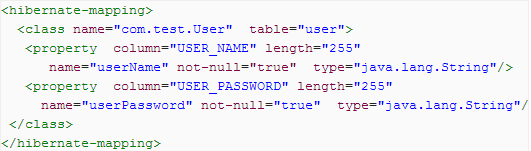
1. *What does SessionFactory interface play in hibernate?*

*The application obtains session instances from a session factory. There is a single session factory for the whole application. It is threadsafe.*

1. *What is HQL?*

*HQL is a mechanism to query, store, update and retrieve objects from a database.*

1. *How do you map Java Objects with database tables?*
2. *First we need to write java domain objects(beans with setter and getter)*
3. *Write hbm.xml, where we map java class to table and database columns to java class variables.*

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1. *What is Named – SQL query?*

*Named SQL queries are defined in the mapping XML document and called wherever required.*

1. *Define Hibernate Template?*

*Hibernate Template is a helper class which provides different methods for querying/retrieving data from the database.*

1. *Difference between get( ) and load( )?*

*If you are not sure if some search data is not in the database,*

*Get = will return null.*

*Load = will throw exception.*

1. *What is difference between merge and update?*

*Use update( ) if you are sure that the session does not contain the same ID.*

*Use merge( ) if you want to merge your modifications without consideration of ID.*

1. *Difference between save( ) and update( ) method in hibernate?*

*Save( ) methods generates ID if there is none, otherwise update.*

*Update( ) method update with ID given else it will throw exception.*

1. *What is first level cache?*

*1st level cache is default in session. It tracks persistent objects for updates. It caches only those queries which it needs and not repeat same query.*

1. *What is second level cache?*

*2nd level cache is wider than the 1st level. If you want to make it happen you need to implement different implementations, Ehcache is one of them. It configures in hibernate.cfg.xml and add annotations for entities needing cached.*

1. *What is query cache in hibernate?*

*Similar to 2nd level cache but only for queries.*

1. *Difference between lazy loading vs eager loading?*

*Lazy Loading = loading of classes only when needed.*

*Eager Loading = Loading all related objects.*

1. *What is inheritance strategy in hibernate?*
2. *Table per concrete class*
3. *Table per hierarchy*
4. *Table per subclass*
5. ***What are the ways to express joins in HQL?***

*HQL provides four ways of expressing (inner and outer) joins:-*

* *An implicit association join*
* *An ordinary join in the FROM clause*
* *A fetch join in the FROM clause.*
* *A theta-style join in the WHERE clause.*