

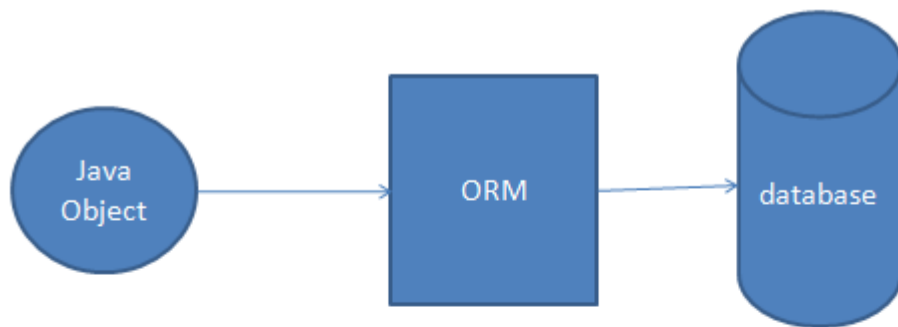
HIBERNATE INTERVIEW QUESTIONS AND ANSWERS

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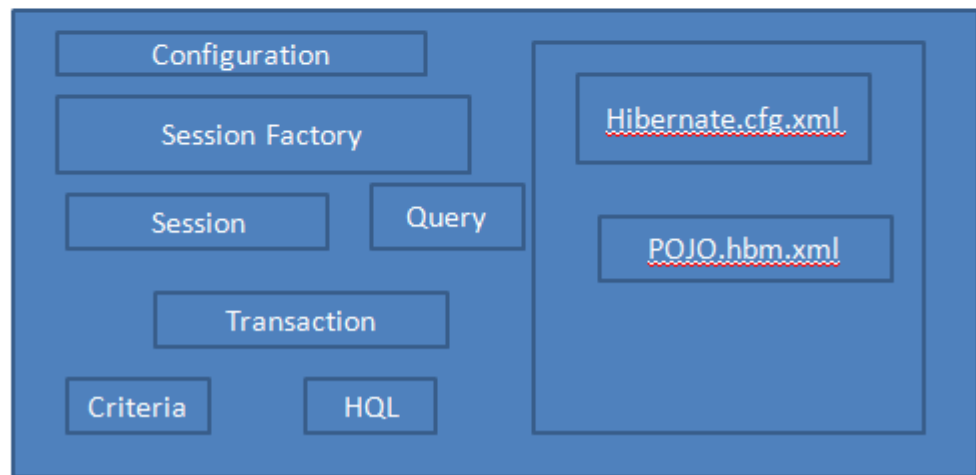
What is hibernate Framework and advantages of it?

- Open source & ORM, database independent
- High performance
- HQL, HCQL
- No expertise required on SQL to work with hibernate
- Automatic table creation, update, saving with less code
- Provides statics

1) Hibernate Architecture and components



HIBERNATE



- SessionFactory
- Session
- Transaction
- ConnectionProvider
- TransactionFactory, Query, Criteria, HQL, HCQL

- 2) What is the use of hibernate.cfg.xml file?
- 3) What is Hibernate Dialects?

Database	Dialects
DB2	org.hibernate.dialect.DB2Dialect
DB2 AS/400	org.hibernate.dialect.DB2400Dialect
DB2 OS390	org.hibernate.dialect.DB2390Dialect
PostgreSQL 8.1	org.hibernate.dialect.PostgreSQL81Dialect
PostgreSQL 8.2 and later	org.hibernate.dialect.PostgreSQL82Dialect
MySQL5	org.hibernate.dialect.MySQL5Dialect
MySQL5 with InnoDB	org.hibernate.dialect.MySQL5InnoDBDialect
MySQL with MyISAM	org.hibernate.dialect.MySQLMyISAMDialect
Oracle (any version)	org.hibernate.dialect.OracleDialect
Oracle 9i	org.hibernate.dialect.Oracle9iDialect
Oracle 10g	org.hibernate.dialect.Oracle10gDialect
Oracle 11g	org.hibernate.dialect.Oracle10gDialect
Sybase ASE 15.5	org.hibernate.dialect.SybaseASE15Dialect
Sybase ASE 15.7	org.hibernate.dialect.SybaseASE157Dialect
Sybase Anywhere	org.hibernate.dialect.SybaseAnywhereDialect
Microsoft SQL Server 2000	org.hibernate.dialect.SQLServerDialect
Microsoft SQL Server 2005	org.hibernate.dialect.SQLServer2005Dialect
Microsoft SQL Server 2008	org.hibernate.dialect.SQLServer2008Dialect
SAP DB	org.hibernate.dialect.SAPDBDialect
Informix	org.hibernate.dialect.InformixDialect
HypersonicSQL	org.hibernate.dialect.HSQLDialect
H2 Database	org.hibernate.dialect.H2Dialect
Ingres	org.hibernate.dialect.IngresDialect
Progress	org.hibernate.dialect.ProgressDialect
Mckoi SQL	org.hibernate.dialect.MckoiDialect
Interbase	org.hibernate.dialect.InterbaseDialect
Pointbase	org.hibernate.dialect.PointbaseDialect
FrontBase	org.hibernate.dialect.FrontbaseDialect
Firebird	org.hibernate.dialect.FirebirdDialect

- 4) Explain steps involved in working with hibernate using hbm.xml file?
 - Create POJO class
 - Create hibernate.hbm.xml file corresponding to POJO class and map the attributes
 - Create the hibernate.cfg.xml file

- Create the class to store or retrieve the database using Hibernate classes
 - Load required hibernate libraries before running the program
- 5) Explain steps involved in working with hibernate using Annotations
- Create the POJO class and annotate class and instance variables e.g : @Entity, @Id
 - Create the hibernate.cfg.xml file
 - Create the class to store or retrieve the object into the database
 - Load required hibernate libraries before running the program
- 6) Hibernate inheritance mapping?
- Table per class Hierarchy
 - Table for concrete class
 - Table for subclass class
- 7) What is Generator class in Hibernate?
- GeneratedValue(strategy=IDENTITY) uses IDENTITY strategy
 - AUTO - Indicates that the persistence provider should pick an appropriate strategy for the particular database.
 - IDENTITY - Indicates that the persistence provider must assign primary keys for the entity using database identity column.
 - SEQUENCE - Indicates that the persistence provider must assign primary keys for the entity using database sequence column.
- 8) TABLE - Indicates that the persistence provider must assign primary keys for the entity using an underlying database table to ensure uniqueness. What is lazy loading in Hibernate?

When hibernate loads the parent class then by default it will not fetch the results associated to its subclass. In hibernate lazy loading is true by default. Please refer the below example.

```
@Entity
public class Employee {

    @Id
    private int empId;
    private String empName;
    private Address address;

    public Employee(int empId, String empName, Address address) {
        super();
        this.empId = empId;
        this.empName = empName;
        this.address = address;
    }
}
```

- 9) What is HQL and its advantage?
- Hibernate Query Language is used to perform the database operations.
 - HQL is database independent query language

```

Query query = session1.createQuery("from Employee");
List<Employee> list = query.list();
for (Employee e : list) {
    System.out.println(e);
}

```

10) What is HQL and its advantage?

- Hibernate Criteria query language, this is used to add the criteria to the queries to filter the results.

```

Criteria criteria = session1.createCriteria(Employee.class);
criteria.add(Restrictions.gt("empId", 100));
criteria.addOrder(Order.asc("empId"));
List<Employee> emplist = criteria.list();
for (Employee e : list) {
    System.out.println(e);
}

```

11) What are named queries in Hibernate?

```

@NamedQueries({
    @NamedQuery(
        name = "getEmplist",
        query = "from Employee"
    )
})

Query query2 = session1.getNamedQuery("getEmplist");
List<Employee> emplist = query2.list();
for (Employee e : emplist) {
    System.out.println(e);
}

```

12) What is caching in Hibernate and explain first level, second level caching in Hibernate and differences?

13) What are different states of an object in Hibernate?

- Transient, persistence, detached

14) What is difference between get () and load()

15) What is difference between update and merge?

16) Automatic dirty checking in hibernate?

17) What is proxy object in Hibernate?

18) What is Native SQL?

```
String sql = "SELECT empId, empName FROM Employee";  
SQLQuery sqlQuery = session1.createSQLQuery(sql);  
List<Employee> results = query.list();
```