**I)JDBC & Core Java ::**

**i)What is JDBC & sample POC’s in JDBC Example with CURD Operation**

**II)Basic Hibernate::**

1. ORM Overview
2. Pros and Cons of JDBC
3. Why Object Relational Mapping (ORM)?
4. What is ORM?
5. Java ORM Frameworks
6. Hibernate Overview
7. Hibernate Advantages
8. Supported Databases
9. Supported Technologies
10. Hibernate Architecture
11. Configuration Object
12. SessionFactory Object
13. Session Object
14. Transaction Object
15. Query Object
16. Hibernate Configuration
17. Hibernate Properties
18. Hibernate with MySql database
19. Create Application Class
20. Database Configuration
21. DCompilation and Execution
22. Hibernate Sessions
23. Session Interface Methods
24. Hibernate Persistent Class
25. UPDATE Clause
26. DELETE Clause
27. INSERT Clause
28. A simple POJO example:
29. Hibernate Generators predefined generators examples

**III)Advanced Hibernate**

1. HQL
2. Criteria
3. Native SQL
4. Hibernate Query Language(HQL)
5. AS Clause
6. SELECT Clause
7. WHERE Clause
8. ORDER BY Clause
9. GROUP BY Clause
10. Using Named Paramters
11. Aggregate Methods
12. Pagination using Query language.

**IV)Advanced Hibernate Mappings and Annotations**

1. Collections Mappings
2. Hibernate Set Mappings
3. Hibernate List Mappings
4. Hibernate Bag Mappings
5. Hibernate Map Mappings
6. Hibernate Mapping Types
7. Primitive types
8. Date and time types
9. Binary and large object types
10. SJDK-related types
11. Association Mappings
12. Hibernate Many-to-One Mappings
13. Hibernate One-to-One Mappings
14. Hibernate One-to-Many Mappings
15. Hibernate Many-to-Many Mappings
16. Component Mappings
17. Hibernate Component Mappings
18. Hibernate Annotations
19. Environment Setup for Hibernate Annotation
    1. Annotated Class Example
    2. @Entity Annotation
    3. @Table Annotation
    4. @Id and @Generated Value Annotation
    5. @Column Annotation
    6. Hibernate all mappings with annotations

**V)** Cache in Hibernate first level Cache & second level cache

**VI)**POC ‘s in Hibernate

**VII)** Real examples in Hibernate

viii) Real time project explanations and datasource configuration .

**Databases :** Oracle ,MySQL

**Database client Tools :** SQL Devlopers(oracle),Toad for Oracle ,Helid SQL(mysql), SQL Yoga(mysql)

Application Servers :Oracle Weblogic (Data Source Examples)

**Web servers :** Tomcat (Data Source Examples)

**IDES :** Eclipse ,Edit plus ,Note Pad++.

**NOTE :**  Examples based on the concepts