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SR.NO	Project NAME	Technology
1	Online E-Learning Platform Hub	React+Springboot+MySql
2	PG Mates / RoomSharing / Flat Mates	React+Springboot+MySql
3	Tour and Travel management System	React+Springboot+MySql
4	Election commition of India (online Voting System)	React+Springboot+MySql
5	HomeRental Booking System	React+Springboot+MySql
6	Event Management System	React+Springboot+MySql
7	Hotel Management System	React+Springboot+MySql
8	Agriculture web Project	React+Springboot+MySql
9	AirLine Reservation System / Flight booking System	React+Springboot+MySql
10	E-commerce web Project	React+Springboot+MySql
11	Hospital Management System	React+Springboot+MySql
12	E-RTO Driving licence portal	React+Springboot+MySql
13	Transpotation Services portal	React+Springboot+MySql
14	Courier Services Portal / Courier Management System	React+Springboot+MySql
15	Online Food Delivery Portal	React+Springboot+MySql
16	Muncipal Corporation Management	React+Springboot+MySql
17	Gym Management System	React+Springboot+MySql
18	Bike/Car ental System Portal	React+Springboot+MySql
19	CharityDonation web project	React+Springboot+MySql
20	Movie Booking System	React+Springboot+MySql

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21	Job Portal web project	React+Springboot+MySql
22	LIC Insurance Portal	React+Springboot+MySql
23	Employee Management System	React+Springboot+MySql
24	Payroll Management System	React+Springboot+MySql
25	RealEstate Property Project	React+Springboot+MySql
26	Marriage Hall Booking Project	React+Springboot+MySql
27	Online Student Management portal	React+Springboot+MySql
28	Resturant management System	React+Springboot+MySql
29	Solar Management Project	React+Springboot+MySql
30	OneStepService LinkLabourContractor	React+Springboot+MySql
31	Vehical Service Center Portal	React+Springboot+MySql
32	E-wallet Banking Project	React+Springboot+MySql
33	Blogg Application Project	React+Springboot+MySql
34	Car Parking booking Project	React+Springboot+MySql
35	OLA Cab Booking Portal	React+NextJs+Springboot+MySql
36	Society management Portal	React+Springboot+MySql
37	E-College Portal	React+Springboot+MySql
38	FoodWaste Management Donate System	React+Springboot+MySql
39	Sports Ground Booking	React+Springboot+MySql
40	BloodBank mangement System	React+Springboot+MySql

41	Bus Tickit Booking Project	React+Springboot+MySql
42	Fruite Delivery Project	React+Springboot+MySql
43	Woodworks Bed Shop	React+Springboot+MySql
44	Online Dairy Product sell Project	React+Springboot+MySql
45	Online E-Pharma medicine sell Project	React+Springboot+MySql
46	FarmerMarketplace Web Project	React+Springboot+MySql
47	Online Cloth Store Project	React+Springboot+MySql
48	Train Ticket Booking Project	React+Springboot+MySql
49	Quizz Application Project	JSP+Springboot+MySql
50	Hotel Room Booking Project	React+Springboot+MySql
51	Online Crime Reporting Portal Project	React+Springboot+MySql
52	Online Child Adoption Portal Project	React+Springboot+MySql
53	online Pizza Delivery System Project	React+Springboot+MySql
54	Online Social Complaint Portal Project	React+Springboot+MySql
55	Electric Vehical management system Project	React+Springboot+MySql
56	Online mess / Tiffin management System Project	React+Springboot+MySql
57		React+Springboot+MySql
58		React+Springboot+MySql
59		React+Springboot+MySql
60		React+Springboot+MySql

Spring Boot + React JS + MySQL Project List

Sr.No	Project Name	YouTube Link
1	Online E-Learning Hub Platform Project	https://youtu.be/KMjyBaWmgzg?si=YckHuNzs7eC84-IW
2	PG Mate / Room sharing/Flat sharing	https://youtu.be/4P9clHg3wvk?si=4uEsi0962CG6Xodp
3	Tour and Travel System Project Version 1.0	https://youtu.be/-UHOBywHaP8?si=KHHfE_A0uv725f12
4	Marriage Hall Booking	https://youtu.be/VXz0kZQi5to?si=llOS-QG3TpAFP5k7
5	Ecommerce Shopping project	https://youtu.be/vJ_C6LkhrZ0?si=YhcBylSErvdn7paq
6	Bike Rental System Project	https://youtu.be/FIzsAmIBCbk?si=7ujQTJqEgkQ8ju2H
7	Multi-Restaurant management system	https://youtu.be/pvV-pM2Jf3s?si=PgvnT-yFc8ktrDxB
8	Hospital management system Project	https://youtu.be/IynIouBZvY4?si=CXzQs3BsRkjKhZCw
9	Municipal Corporation system Project	https://youtu.be/cVMx9NVyI4I?si=qX0oQt-GT-LR_5jF
10	Tour and Travel System Project version 2.0	https://youtu.be/_4u0mB9mHXE?si=gDiAhKBowi2gNUKZ

Sr.No	Project Name	YouTube Link
11	Tour and Travel System Project version 3.0	https://youtu.be/Dm7nOdpasWg?si=P_Lh2gcOFhlyudug
12	Gym Management system Project	https://youtu.be/J8_7Zrkg7ag?si=LcxV51ynfUB7OptX
13	Online Driving License system Project	https://youtu.be/3yRzsMs8TLE?si=JRI_z4FDx4Gmt7fn
14	Online Flight Booking system Project	https://youtu.be/m755rOwdk8U?si=HURvAY2VnizIyJlh
15	Employee management system project	https://youtu.be/lD1iE3W_GRw?si=Y_jv1xV_BljhrD0H
16	Online student school or college portal	https://youtu.be/4A25aEKfei0?si=RoVgZtxMk9TPdQvD
17	Online movie booking system project	https://youtu.be/Lfjv_U74SC4?si=fiDvrhhrjb4KSlSm
18	Online Pizza Delivery system project	https://youtu.be/Tp3izreZ458?si=8eWAOzA8SVdNwlyM
19	Online Crime Reporting system Project	https://youtu.be/0UlzReSk9tQ?si=6vN0e70TVY1GOwPO
20	Online Children Adoption Project	https://youtu.be/3T5HC2HKyT4?si=bntP78niYH802I7N

Hibernate MCQs With Answers Explained

Concept-Based Questions

Q#1. Below are the three statements in the context of Hibernate Framework.

1) Hibernate is a database management system

2) The main configuration file for Hibernate is hibernate-config.xml

3) Hibernate is an ORM tool

Which of the following is the correct option?

```
A) Statements 2 & 3 are correct
B) All statements are correct
C) Statements 1 & 2 are incorrect
D) All statements are incorrect
```


A#1: C) Statements 1 & 2 are incorrect

Explanation: Hibernate is not a database management system. The main configuration file for Hibernate is hibernate.cfg.xml (not the hibernate-config.xml), which contains database connection settings and other configurations. Also, Hibernate is an ORM tool for Java. Therefore, statements 1 & 2 are incorrect, while 3 is correct.

Q#2. Which statement is incorrect about the @Entity annotation in Hibernate?

```
A) It is a foundation for mapping Java objects to relational database tables.
B) It marks a class as an entity bean.
C) An entity annotated class instance corresponds to a single row in the mapped da
D) It creates a new database.
```

A#2: D) It creates a new database

Explanation: The @Entity annotation creates a new table in the database, but not a new database. Hence, option D is incorrect.

Q#3. What is the purpose of the SessionFactory in Hibernate?

```
A) To manage database connections
B) To create session objects
C) To generate SQL queries
D) To create entity beans
```

A#3: B) To create session objects

Explanation: The SessionFactory is used to create Session objects, which in turn manage the lifecycle and persistence of entities.

Q#4. Below are the three statements in the context of Hibernate Framework.

1. Hibernate can generate database schema based on mappings.
2. Hibernate does not support lazy fetching of associations.
3. Hibernate supports caching to improve performance.

Which of the following is the correct option?

```
A) Statements 1 & 3 are correct
B) All statements are correct
C) Statements 2 & 3 are incorrect
D) All statements are incorrect
```


A#4: A) Statements 1 & 3 are correct

Explanation: Hibernate can generate database schema based on entity mappings. Hibernate supports lazy fetching of associations to improve performance. Hibernate also supports caching mechanisms to reduce database hits. Therefore, statements 1 & 3 are correct, while 2 is incorrect.

Q#5. Which Hibernate interface is responsible for managing the persistent state of an object?

```
A) SessionFactory
B) Session
```

C) Coniguration
D) Query

A#5: B) Session

Explanation: The Session interface is responsible for managing the persistent state of an object, including CRUD operations.

Q#6. Below are the three statements in the context of Hibernate Framework.

1. Hibernate Query Language (HQL) is case-sensitive.
2. HQL allows for SQL-like queries.
3. Hibernate does not support native SQL queries.

Which of the following is the correct option?

A) Statements 2 & 3 are correct
B) All statements are correct
C) Statements 1 & 3 are incorrect
D) All statements are incorrect

A#6: C) Statements 1 & 3 are incorrect

Explanation: Hibernate Query Language (HQL) is not case-sensitive except for Java class and variable names. HQL allows for SQL-like queries to be written. Hibernate supports native SQL queries through the createSQLQuery() method. Therefore, statements 1 & 3 are incorrect, while 2 is correct.

Q#7. Which of the following is used to specify the primary key of an entity?

A) @Id
B) @PrimaryKey
C) @Primary
D) @Key

A#7: A) @Id

Explanation: The @Id annotation is used to specify the primary key of an entity in Hibernate.

Q#8.What is the use of the @GeneratedValue annotation in Hibernate?

```
A) To generate SQL queries
B) To generate unique values for primary keys
C) To generate entity beans
D) To generate database tables
```

A#8: B) To generate unique values for primary keys

Explanation: The @GeneratedValue annotation is used to specify how the primary key should be automatically generated.

Q#9. Below are the three statements in the context of Hibernate Framework.

1. The @Entity annotation is used to declare a class as a Hibernate entity.
2. The @GeneratedValue annotation specifies the primary key generation strategy.
3. The @JoinColumn annotation is used to specify a mapped column for joining an entity association.

Which of the following is the correct option?

```
A) Statements 1 & 2 are correct
B) All statements are incorrect
C) Statements 2 & 3 are incorrect
D) All statements are correct
```


A#9: D) All statements are correct

Explanation: The @Entity annotation is used to declare a class as a Hibernate entity. The @GeneratedValue annotation specifies the strategy for primary key generation. The @JoinColumn annotation is used to specify a column for joining an entity association. Therefore, all statements are correct.

Q#10. What does the @OneToMany annotation signify in Hibernate?

```
A) One entity is associated with multiple entities
B) One entity is associated with one entity
```

```
C) Many entities are associated with many entities
D) Many entities are associated with one entity
```

A#10: A) One entity is associated with multiple entities

Explanation: The @OneToMany annotation signifies that one entity is associated with multiple entities.

Q#11. Below are the three statements in the context of Hibernate Framework.

1. Hibernate supports second-level caching.
2. Hibernate does not support automatic dirty checking.
3. Hibernate uses proxies for lazy loading of entities.

Which of the following is the correct option?

```
A) Statements 1 & 3 are correct
B) All statements are correct
C) Statements 2 & 3 are incorrect
D) All statements are incorrect
```


A#11: A) Statements 1 & 3 are correct

Explanation: Hibernate supports second-level caching to improve performance by reducing database access. Hibernate supports automatic dirty checking to detect changes in entities and update the database accordingly. Hibernate uses proxies for lazy loading of entities. Therefore, statements 1 & 3 are correct, while 2 is incorrect.

Q#12. Below are the three statements in the context of Hibernate Framework.

1. The Session interface provides methods to create, read, and delete operations.
2. Hibernate annotations are part of the javax.persistence package.
3. The @Table annotation specifies the table name for an entity.

Which of the following is the correct option?

```
A) Statements 1 & 3 are correct
B) All statements are correct
```

```
C) Statements 2 & 3 are incorrect
D) All statements are incorrect
```

A#12: A) Statements 1 & 3 are correct

Explanation: The Session interface in Hibernate provides methods for create, read, and delete operations. During Recent Migration, the Java Persistence API (JPA) is undergoing a specification move from Java EE to Jakarta EE, with the package name changing to jakarta.persistence from javax.persistence, which is the standard JPA (Java Persistence API) package. The @Table annotation specifies the table name for an entity in the database. Therefore, statements 1 & 3 are correct, while 2 is incorrect.

Code-Based Questions

Q#13. Which method is used to save an entity in Hibernate?

```
A) session.save(entity)
B) session.insert(entity)
C) session.store(entity)
D) session.persist(entity)
```


A#13: A) session.save(entity)

Explanation: The session.save(entity) method is used to save an entity in Hibernate.

Q#14. What is the purpose of the session.delete(entity) method?

```
A) To delete an entity from the session
B) To delete an entity from the database
C) To delete a table from the database
D) To delete a column from the table
```

A#14: B) To delete an entity from the database

Explanation: The session.delete(entity) method is used to delete an entity from the database.

Q#15. Which method is used to fetch an entity by its primary key?

```
A) session.fetch(Class, id)
B) session.load(Class, id)
C) session.retrieve(Class, id)
D) session.get(Class, id)
```

A#15: D) session.get(Class, id)

Explanation: The session.get(Class, id) method is used to fetch an entity by its primary key.

Q#16. In which method do you write HQL queries in Hibernate?

```
A) session.createQuery()
B) session.createSQLQuery()
C) session.createHQLQuery()
D) session.createNativeQuery()
```


A#16: A) session.createQuery( )

Explanation: The session.createQuery() method is used to write HQL (Hibernate Query Language) queries in Hibernate.

Q#17. Consider the following entity class. Which annotation is missing to create the custom user_email as a database column?

```
@Entity
public class User {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private Long id;
    private String name;
    // Missing annotation
    private String email;
```

```
    // Getters and setters
}
```

```
A) @Attribute
B) @MappedColumn
C) @Column
D) @Field
```

A#17: C) @Column

Explanation: The @Column annotation is required to map a custom column user_email field to the database.

Q#18.What is the use of the Criteria API in Hibernate?

```
A) To create SQL queries
B) To create HQL queries
C) To create object-oriented queries
D) To create native queries
```


A#18: C) To create object-oriented queries

Explanation: The Criteria API is used to create object-oriented queries in Hibernate.

Q#19. Which method is used to add a restriction in the Criteria API?

```
A) criteria.add(Restriction)
B) criteria.add(Criterion)
C) criteria.add(Constraint)
D) criteria.add(Condition)
```

A#19: B) criteria.add(Criterion)

Explanation: The criteria.add(Criterion) method is used to add a restriction in the Criteria API.

Q#20. What is the purpose of the @Immutable annotation in Hibernate?

```
A) To prevent the entity from being cached
B) To mark an entity as read-only and prevent updates
C) To make the entity serializable
D) To define a composite primary key
```

A#20: B) To mark an entity as read-only and prevent updates

Explanation: The @Immutable annotation is used to mark an entity as read-only and prevent any updates to its state. It means additions and deletions to and from the collection are not allowed.

Q#21. How can you configure a Hibernate entity to be automatically timestamped on creation and update?

```
A) Using @CreatedDate and @LastModifiedDate
B) Using @Timestamped annotation
C) Using @Temporal(TimestampType)
D) Using @CreationTimestamp and @UpdateTimestamp
```


A#21: D) Using @CreationTimestamp and @UpdateTimestamp

Explanation: The @CreationTimestamp and @UpdateTimestamp annotations are used to automatically timestamp an entity on creation and update.

Q#22. Which of the following methods would you use to retrieve an entity by its primary key using the Criteria API?

```
A) criteria.createCriteria()
B) criteria.add(Restrictions.eq("id", id))
C) criteria.createAlias("id", "primaryKey")
D) criteria.addOrder(Order.asc("id"))
```

A#22: B) criteria.add(Restrictions.eq(“id”, id))

Explanation: criteria.add(Restrictions.eq("id", id)) is used to add a restriction for fetching an entity by its primary key in the Criteria API.

Scenario-Based Questions

Q#23. Jacob is working on a web application where Hibernate is being used in the data layer. He wrote a POJO class and wants this class to work as an entity to implement the ORM concept. What are the minimum required annotations he must use at the class to create a table in the database?

```
A) @Table, @Entity, @Id
B) @Id, @GeneratedValue
C) @Id, @Entity
D) @Column, @Entity, @Table
```


A#23: C) @Id, @Entity

Explanation: In order to create a table in the database, @Entity & @Id annotations are mandatory, otherwise Hibernate will throw an exception.

Q#24. Alice is worling in a Hibernate project. She needs to map a List of values in her entity. Which annotation should she use?

```
A) @OneToMany
B) @ElementCollection
C) @ManyToMany
D) @Embedded
```

A#24: B) @ElementCollection

Explanation: The @ElementCollection annotation is used to map a collection of basic or embeddable types. We can use the @ElementCollection annotation to store a list of values as an entity attribute without creating an additional entity.

Q#25. Mark wants to use a custom generator for primary keys in his Hibernate application. Which annotation will help him achieve this?

A) @Id
B) @GeneratedValue
C) @GenericGenerator
D) @SequenceGenerator

A#25: C) @GenericGenerator

Explanation: The @GenericGenerator annotation is used to define a custom/user-defined sequence generator in Hibernate.

Q#26. Jane is trying to optimize the performance of her Hibernate application by using a second-level cache. Which of the following steps is NOT necessary for configuring the second-level cache in Hibernate?

A) Enabling second-level cache in the configuration file
B) Specifying cache provider in the configuration file
C) Annotating entities with @Cacheable
D) Using session.clear() method to clear the cache manually

A#26: D) Using session.clear() method to clear the cache manually

Explanation: Steps A, B, and C are necessary to configure the second-level cache, but using session.clear() to clear the cache manually is not a necessary step for configuring it.

Q#27. Mike wants to create a composite primary key for his entity class. Which of the following annotations should he use?

A) @Id
B) @EmbeddedId
C) @GeneratedValue
D) @ElementCollection

A#27: B) @EmbeddedId

Explanation: The @EmbeddedId annotation is used to define a composite primary key that is an embeddable class.

Q#28. Emma needs to perform a bulk update operation using HQL. Which of the following methods should she use?

```
A) session.update()
B) session.bulkUpdate()
C) query.executeUpdate()
D) session.saveOrUpdate()
```

A#28: C) query.executeUpdate()

Explanation: The query.executeUpdate() method is used to perform bulk update or delete operations in HQL.

Q#29. Lucas is working on a many-to-one relationship betweenStudent and Course entities. Which annotations should he use to map this relationship correctly?

```
A) @ManyToMany with mappedBy attribute
B) @OneToMany with mappedBy attribute
C) @ManyToOne with mappedBy attribute
D) @OneToOne with mappedBy attribute
```


A#29: C) @ManyToOne with mappedBy attribute

Explanation: To map a many-to-one relationship, Lucas should use @ManyToOne along with mappedBy attribute to specify the join table.

Q#30. David needs to fetch the associatedAuthor for each Book entity using a join in HQL. Which of the following HQL queries should he use?

```
A) SELECT b FROM Book b JOIN FETCH b.author
B) SELECT b FROM Book b LEFT JOIN b.author
C) SELECT b FROM Book b RIGHT JOIN b.author
D) SELECT b FROM Book b OUTER JOIN b.author
```

A#30: A) SELECT b FROM Book b JOIN FETCH b.author

Q#31. Mary wants to enable lazy loading for a collection in her entity. Which annotation should she use?

```
A) @Lazy
B) @LazyCollection
C) @OneToMany(fetch = FetchType.LAZY)
D) @OneToMany(fetchType = LAZY)
```

A#31: C) @OneToMany(fetch = FetchType.LAZY)

Explanation: To enable lazy loading for a collection, Maria should use @OneToMany(fetch = FetchType.LAZY)

Q#32. James has an entityProduct with a fieldprice of type double. How would he write an HQL query to find products with a price greater than 100?

```
A) FROM Product p WHERE p.price > 100
B) FROM Product p WHERE p.price gt 100
C) FROM Product p WHERE p.price = 100
D) FROM Product p WHERE p.price >= 100
```


A#32: A) FROM Product p WHERE p.price > 100

Explanation: The correct HQL query to find products with a price greater than 100 is FROM Product p WHERE p.price > 100.

Miscellaneous Questions

Q#33. What is the role of the @BatchSize annotation in Hibernate?

```
A) It specifies the number of entities to be loaded in a single batch, reducing th
B) It defines the maximum size of a batch insert operation.
C) It sets the size of the first-level cache.
D) It configures the size of the JDBC batch.
```

A#33: A) It specifies the number of entities to be loaded in a single batch, reducing the number of database queries.

Explanation: The @BatchSize annotation specifies the number of entities to be loaded in a single batch, which can reduce the number of database queries and improve performance.

Q#34. Which of the following Hibernate annotations can be used to define a custom SQL query for insert operations on an entity?

```
A) @SQLQuery
B) @NativeInsert
C) @SQLInsert
D) @InsertQuery
```


A#34: C) @SQLInsert

Explanation: The @SQLInsert annotation is used to define a custom SQL query for insert operations on an entity.

Q#35. How can you configure a Hibernate entity to use a different database schema for read and write operations?

```
A) Using @ReadOnlySchema and @WriteSchema
B) Using @SQLRead and @SQLWrite
C) Using @ReadSchema and @WriteSchema
D) Using @SecondaryTable with different schemas
```

A#35: D) Using @SecondaryTable with different schemas

Explanation: The @SecondaryTable annotation can be used to map an entity to different schemas for read and write operations by defining multiple table mappings.

Chapter: Hibernate

1. Which of the following is not a core interface of Hibernate?

A. Configuration

B. Criteria

C. SessionManagement

D. Session

Answer» C. SessionManagement

discuss

2. Which of the following is not a core component of Hibernate?

A. JDBC

B. SessionFactory

C. Session

D. Configuration

Answer» A. JDBC

discuss

3. Is Session a thread-safe object?

A. True

B. False

C. none

D. all

Answer» B. False

discuss

4. SessionFactory is a thread-safe object.

A. True

B. False

C. none

D. all

Answer» A. True

discuss

5. **Which of the following methods returns proxy object?**

A. loadDatabase()

B. getDatabase()

C. load()

D. get()

Answer» C. load()

discuss

6. **Which of the following methods hits database always?**

A. load()

B. loadDatabase()

C. getDatabase()

D. get()

Answer» D. get()

discuss

7. **Which of the following method is used inside session only?**

A. merge()

B. update()

C. end()

D. kill()

Answer» B. update()

discuss

8. **The SessionFactory is heavyweight object.**

A. False

B. True

C. none

D. all

Answer» B. True

discuss

9. **Which of the following is not a state of object in Hibernate?**

A. Attached()

B. Detached()

C. Persistent()

D. Transient()

Answer» A. Attached()

discuss

10. **Which of the following is true about HQL?**

A. HQL takes java objects in the same way as SQL takes tables.

B. HQL is a Object Oriented Query language

C. HQL is database independent.

D. All of the above.

Answer» D. All of the above.

discuss

11. **Which of the following is not an inheritance mapping strategies?**

A. Table per hierarchy

B. Table per concrete class

C. Table per subclass

D. Table per class

Answer» D. Table per class

discuss

12. **Which of the following is not an advantage of using Hibernate Query Language?**

A. Database independent

B. Easy to write query

C. No need to learn SQL

Answer» D. Difficult to implement

12. **Which of the following is not an advantage of using Hibernate Query Language?**

D. Difficult to implement

Answer» D. Difficult to implement

discuss

13. **In which file database table configuration is stored?**

A. .dbm

B. .hbm

C. .ora

D. .sql

Answer» B. .hbm

discuss

14. **Which of the following is not an advantage of Hibernate Criteria API?**

A. Allows to use aggregate functions

B. Cannot order the result set

C. Allows to fetch only selected columns of result

D. Can add conditions while fetching results

Answer» B. Cannot order the result set

discuss

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