**Java:**

1. SOLID principal.
2. Diff betwen Abstraction and Encapsulation?
3. Why string is immutable?
4. How to create Immutable objects?
5. Diff between Throw, Throws, Throwable?  
   **Note**: If we throw unchecked exception from a method, it is must to handle the exception or declare in throws clause.  
   **Note**:  If the superclass method does not declare an exception, subclass overridden method cannot declare the checked exception but it can declare unchecked exception.  
   **Note**: If the superclass method declares an exception, subclass overridden method can declare the same subclass exception or no exception but cannot declare parent exception
6. try without catch but with finally block?
7. what is exception propagation?
8. How many ways Thread can be created?
9. What is Thread Local? And its benefit?
10. What is class level lock and object level lock?
11. What is synchronization?
12. How to create Thread pool using executor service?
13. What are wrapper classes?
14. diff ArrayList vs LinkedList?
15. How HashMap works internally?
16. what are fail fast and fail safe iterators?
17. diff between comparator vs comparable?
18. diff HashMap vs ConcurrentHashMap?
19. what changes noticed in HashMap after Java8?
20. what is lazy initialization and eager initialization?
21. What is Equals and HashCode contract?
22. how many ways object can be created

**Java 8:**

1. what is functional interface?
2. what is use of Lambda Expression?
3. What is the use of @FunctionalInterface?
4. what is diff between Collection and Streams?
5. Why streams are used?
6. Difference between map and flatMap in stream API?
7. What memory changes noticed in java8? (onPrem memory vs MetaSpace)?
8. what changes have been done in garbage collections from Java 8?
9. why do you need default and static method in interfaces?
10. what are terminal and intermediate operations?
11. what is use of Optional class? Optional.ofNullable(), isPresent(), ifPresent(), orElseThrow(), Optional.Of()?

**SpringBoot**:

1. WHat is Spring IOC?
2. What is Dependency Injection in Spring
3. Use of @Qualifier,@Primary, @SpringBootApplication, @Value,
4. what are stereotype Annotations and use of it.
5. diff between bean and component?
6. what all spring modules you have worked.?
7. How to handle transaction management in springboot?
8. How you will build and deploy the application automatically?
9. How you will create external configuration in springboot?
10. How can we exclude or include Auto-Configuration files in SpringBoot. Why is spring-boot opinionated ?
11. How can we handle exception in Spring boot using try-catch and @ControllerAdvice  
    what is use of @ComponentScan annotation?
12. How you will exclude in built tomcat server to use Jetty Server in the application?
13. How you will monitor your application? (Actuators)?
14. what are profiling in springboot?
15. how to configure actuator end point to use diff port number and why it is require to have diff port but not same as application port?
16. Statefull and staeless in RestApi.

**Hibernate:**

1. Why Hibernate?
2. what is 1st level cache and 2nd level cache?
3. is session factory is Thread safe?
4. diff between get vs load
5. diff between save vs persist?
6. What is Lazy loading and eager loading
7. what is cascading concept?
8. How you declare composite primary key in your application?
9. How you will create JPA queries and how you will handle the complex queries in JPA.
10. want to see the generated queries in the logs in springboot, what configuration you need for that.
11. How you will create/access multiple datasource in Springboot?
12. How you will handle Transaction management.

**Spring Security**:

1. How you will secure your APIs

**Design patterns**:

* Singleton design pattern
* Façade design pattern
* Factory design pattern
* How do you achieve open closed principal using which design pattern

**Misleneous:**

1. What it ThreadLocal and its benefits?
2. Why do we use volatile and atomic keyword?
3. what is Thread lock?
4. what are iterators in Java and what are its implementation classes?
5. what are streamApis and how it helps us?
6. What is difference between flatmap and map?
7. What are spring modules?
8. what is cyclic dependencey(one bean is dependent on another bean like cyclic), how you will handle it?
9. what is @Lazy anotation is used?
10. How SpringData JPA works internally?
11. How @Transactional management helps in springboot and what are transaction propagation and isolation?
12. How security is being implemented in your project?
13. what is difference between bean and component?

**Db related:**

1. what are indexing in database and how you will create and how it works?
2. what are transaction propagation?
3. How you will create triggers.
4. Manager employee query
5. Joins query
6. Find 2,3,1 highest salary from the employee table