1. What is HashMap ? explain internal working of hashmap.
2. **Program**: Find out the list of employees whose salary greater than 5K using java8 streams.
3. How many annotations In Spring boot?
4. Difference between @Controller And @RestController
5. **Scenario**: Suppose there are 4 beans and you want to execute beans based on some order like 1,2,3,4 how you do ?
6. Explain functional interface in java8 ?
7. Used of lambda expression?
8. What is Optional? Why it is used?
9. When to used of() and ofNullable()
10. What are the solid principles? Explain in detail.
11. **Program**: write a Junit test case to accept 200 ok scenario.
12. Design patterns in Microservices?
13. When to used REST call and ASYNC calls in MS.
14. How you implement ASYNC communication in MS?
15. What is event -driven design pattern?
16. What is the used of Kafka?
17. What is the publisher and subscriber?
18. What is offset and how you manage offset?
19. What is partitions in topics? How to configured consumers on topic.
20. **Scenario**: Suppose we have one topic and there is 5 partitions in single topic and 6 subscribers then how this consumers work on this partitions ?
21. **Scenario**: If a message lapse from topic due to some server problem how we track this situation ?
22. What is the default size of message in topic?
23. **Program**: we have a String like “I am a programmer” find out the second non repetitive character from string.
24. Difference between PUT() and PATCH()
25. **Program** : Create a sample rest API call Program with POST() HTTPS .
26. Used of @RequestParam And @PathVariable.
27. **Program** : Write a query to find out data of emp whose base location is PUNE

**Tables** : EMP   
 Column : EMP\_ID,EMP\_NAME,EMP\_ADDRESS

**Table** : LOCATION

**Column** : LOC\_ID,EMP\_ID,LOCATION

1. What is SQL Injection?
2. Difference between Primary Key and Foreign Key?
3. What is composite key and how to configure it?
4. What are Microservices architectural patterns?
5. How do you reduce the cost of query? Query optimization?
6. How to delete duplicate entries from the table?
7. Explain Thread Life Cyle?
8. How to handle distributed transactions in MS ? and types of saga and its implementation?
9. What are the types of Communication between MS?
10. Can we add null in primary key?
11. Difference between primary key and primary index?
12. How you will make sure that threads t1 , t2 and t3 will execute in sequential order?
13. How will you execute beans in sequential order?
14. What are the ways to create thread?
15. Difference between wait and sleep?
16. What will be the thread state if we call wait method?
17. How to implement singleton class and ways to break singleton class?
18. How to implement immutable class?
19. **Program** : Write a query to list students with their scholarship amount. If scholarship amount is not there then result should add null against amount.

**Tables** : STUDENT   
 Column : STUDENT\_ID,STUDENT\_NAME,COURSE

**Table** : SCHOLARSHIP

**Column** : SCH\_ID,SCH\_DATE,SCH\_AMT

1. Difference between execute and submit method?
2. What is API Gateway?
3. How do you handle failures in MS?
4. **Program**: We have array of Integers, If any element is repeated in array then return true;
5. **Program**: Sort Employee by their salary using java 8?
6. W.A.P to get unique product names in upper case which value is > 2000?
7. How do you handle exceptions in spring Boot? Where will you handle exception in MVC layer?
8. What is OneToOne and OneToMany mapping?
9. What is Auto configuration?