**Key Topics to be Covered**

1. **Java 8:**
   1. Explain Java 8 features?
   2. Stream API – difference between Filter and Map
   3. Use of functional Interface in Java 8
   4. List out any predefine functional interface
   5. Explain Collection Framework
   6. Explain Serialization & deserialization
   7. How many design patterns did you worked?
   8. Have you done any Custom exceptions?
   9. Explain Try with Resource block?
   10. What is use of pom.xml?
   11. Difference between Sprint MVC and Sprint Boot
   12. Spring MVC 🡪 Explain Dependency injection
   13. Why industry moving Microservices?
   14. Spring Boot 🡪 Explain Spring Cloud
   15. Any idea about 12 Factor App?
   16. Which environment did you used On-Premises or Cloud?
2. **CID – Continuous Integration & Deployment – Dev Ops**
   1. Created any Pipeline?
3. **Testing**
   1. For Unit testing… what are all the tools did you used?
4. **Methodology**
   1. Agile or Waterfall model
5. **DB:**
   1. Do you have Hibernate DB exp?
   2. RDBMS (Oracle, MySQL) exp?
   3. Difference between Cosmos and RDBMS DB
6. **Kafka**

1. What details you know about Kafka & their architecture?

2. Are you familiar with ACL?

3. What is Re-balancing?

4. Do you know how to define orchestrator?

5. Understanding about CI Ducker/Kubernetes

6. How to resolve Docker memory related issues?

7. Service side web application Vs. Single Page web application

8. Middleware – Spring boot, micrnons

9. How to Continuous publish stream data using REST API

10. What is the use of Spring Webflux

11. How distributing tracing work in Microservice Architecture

12. Chaining Microservices

13. How it works Service discovery in Microservice?

14. Pralvam aware of

15. 4 bottles possion...all are identical... 30mins rats will die. How to rats are required to kill in 30 mins = Screenshot

16. Apache Flink - Open in google and tell me what is use of this?

17. Camunda - Open in google and tell me what is use of this?

18. For new application... how to choose/determine a database?

CAP theorem Consistency, Availability, Partition Tolerance

**Customer Interview questions:**

1. Explain about development experience and tech stack you worked
2. Role & Responsibilities
3. Which Cloud environment user?
4. Hands on experience in Cloud Azure / GCP / AWS ?
5. How to move one Jenkins job to another
6. Have you ever created pipeline in Jenkins?
7. ATD - Automation Test Driven
8. Did you used code quality? What is the gateway % ?
9. What is Sonar gateway means?
10. What does XL deploy?
11. Do you know difference between Kubernetes & Cloud deployment?
12. Do you have Microservice deployment experience?
13. Explain life cycle of Microservices development
14. Test Automation exp? Selenium
15. CI - Continuous Integration & Delivery
16. How are Ducker and Kubernetes related?
17. Do you have any Frontend technology (JavaScript - Angular/React etc.) experience?
18. Which application monitoring tool did you used?
19. Ever used Splunk?
20. Explain Kubernetes main components explains.
21. What is Ducker file and why do you need to use Duckers?
22. How many components in Ducker?
23. Explicit logger experience?
24. How to handle production logs?
25. Who do the prioritisation of production log?
26. Who maintain the production logs?
27. Do you have any maintenance war room exp?
28. Support tickets L2 & L3 connect to users and developer to fix
29. Explain spring boot annotations?
30. Explain what configuration what they do?
31. What type of method (GET & POST) used for microservices?
32. What IDE used?
33. Write Simple class - annotations in IDE or notepad
34. Multi-threading exp?
35. What are the Profiles in Spring Boot?
36. What is diff env in your project? PROD/UAT/DEV
37. Log level modification where we can do it?
38. What build tool used? Maven/
39. What is JFrog?
40. Which build tool used? GIT or SVN
41. What Is Spring Cloud?
42. How Do You Override A Spring Boot Project’s Default Properties?
43. Role Of Actuator In Spring Boot
44. How Is Spring Security Implemented In A Spring Boot Application?
45. Which Embedded Containers Are Supported By Spring Boot?
46. What Do You Mean By End-To-End Testing Of Microservices?
47. How Can You Set Up Service Discovery?
48. Why Would You Opt For Microservices Architecture?
49. Why Would You Need Reports & Dashboards In Microservices?
50. What is Coupling and Cohesion?
51. Explain microservice architecture
52. Why Do We Need Containers For Microservices?
53. What Are The Fundamentals Of Microservices Design?
54. What Are The Different Types Of Two-Factor Authentication?
55. How Would You Perform Security Testing of Microservices?
56. Explain microservices architecture
57. What are main differences between Microservices and Monolithic Architecture?
58. Explain several components in Kafka like Topic, producer,consumer,broker
59. What is the role of the ZooKeeper in Kafka
60. What is a Consumer Group?
61. Explain the role of the offset
62. Is it possible to use Kafka without ZooKeeper
63. What do you know about Partition in Kafka
64. How are partitions distributed in a Kafka cluster?
65. Advantages of kafka ?
66. API's of kafka explain
67. kafka vs flume
68. What is the purpose of retention period in Kafka cluster
69. Explain the maximum size of a message that can be received by the Kafka
70. Explain Multi-tenancy
71. What is the role of Connector API
72. RabbitMQ vs Apache Kafka
73. Disadvantages of kafka
74. Features of Kafka Stream.
75. Explain how you can get exactly once messaging from Kafka during data production?
76. Answer for this ( Abhishek) -->During data, production to get exactly once messaging from Kafka you have to follow two things avoiding duplicates during data consumption and avoiding duplication during data production.
77. Here are the two ways to get exactly one semantics while data production:
78. Avail a single writer per partition, every time you get a network error checks the last message in that partition to see if your last write succeeded In the message include a primary key (UUID or something) and de-duplicate on the consumer
79. Is it possible to get the message offset after producing?
80. Answer :You cannot do that from a class that behaves as a producer like in most queue systems, its role is to fire and forget the messages. The broker will do the rest of the work like appropriate metadata handling with id’s, offsets, etc.
81. What is Broker and how Kafka utilize broker for communication?
82. Broker are the system which is responsible to maintaining the publish data.
83. Each broker may have one or more than one partition.
84. Kafka contain multiple broker to main the load balancer.
85. Kafka broker are stateless
86. As a consumer of the message, you can get the offset from a Kafka broker. If you gaze in the SimpleConsumer class, you will notice it fetches MultiFetchResponse objects that include offsets as a list. In addition to that, when you iterate the Kafka Message, you will have MessageAndOffset objects that include both, the offset and the message sent.
87. What are Guarantees provided by Kafka
88. Explain the Methods Of ZooKeeper class
89. Explain Zookeeper Queues
90. What are Watches in ZooKeeper
91. What are the barriers in zookeeper
92. What is Zookeeper Cluster
93. What is ZooKeeper Client
94. 1 = > Question: Given a customer billing database for mobile provider company with 2 tables –
95. Table - MONTHLY\_BILLING , Column - CUSTOMERID,MONTH,AMOUNT
96. Table - CALL\_DETAILS , Column - CUSTOMERID, TIME, CALLDUARATION
97. Find 1) Find top billed amount and longest call for each customer.
98. Answer :
99. SELECT CALL\_DETAILS.CUSTOMERID,MAX(AMOUNT),MAX(CALLDURATION) from MONTHLY\_BILLING JOIN CALL\_DETAILS ON MONTHLY\_BILLING.CUSTOMERID=CALL\_DETAILS.CUSTOMERID
100. GROUP BY CALL\_DETAILS.CUSTOMERID
101. Find 2) Consider there are 10 unique customers, find top 3 bills for each customer in last 12 months.
102. Answer : SELECT TOP 3 CUSTOMERID,MAX(AMOUNT) from MONTHLY\_BILLING GROUP BY CUSTOMERID
103. Find 3) Longest call for each month.
104. Answer : SELECT MONTH,MAX(CALLDURATION) from MONTHLY\_BILLING GROUP BY MONTH
105. 2 => Write program to reverse the content of file with N lines?
106. Line 1 should become line number N, Line 2 should become line N-1 and so on.
107. The content of line should also get reversed. For example – If line number 1 has content like RAJAT, it should become TAJAR.
108. 3 => Write to program to reverse string without using inbuilt reverse function?
109. 4= > Below is the code snippet , write a logic to display HashMap in ascending order based on its value?
110. HashMap<String,Integer> hashMap=new HashMap<>();
111. hashMap.put("subject1",85)
112. hashMap.put("subject2",60)
113. hashMap.put("subject3",75)
114. hashMap.put("subject4",55)
115. hashMap.put("subject5",80)
116. 5. What is ploymorhism and its type
117. 6. Diff b/w @controller and @RestController in Spring
118. 7. Diff b/w Spring and Spring Boot
119. 8. what is Generic in Java
120. 9. How authentication and authorization are handled
121. 10. Spring security
122. 11. Few questions from Jenkins
123. 12. Sort employee objects in list based on Employee Age using Java 8 feature or custom implementation
124. 13. few questions from Spring Core (AOP)
125. 14. Design pattern and its types
126. 15. What is Factory Abstract Design pattern
127. 16. what is Java latest version
128. 17. Generally how can we find performance issues in application and remedy that.
129. 18. Where Docker container is deployed
130. 19. Database that you are using or experienced?
131. 20. Mount the volume without docker container
132. 21. Rollback in JPA (for example: there are 2 operations, if one fails another should reverse)
133. 22. How do you fix log4j issue
134. 23. Scheduler with use case
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