write sql query to find city wise employee  
write sql query to count the company leaving date between 2000 to 2005 employee  
Springboot internal work folow  
write the rest api to print the list of employee whose city is bangalore  
print the only number from given string s=gdhad 42353    14th;  
how to map json object to employee  
how to handle the exception  
java 8 features  
count the city wise employee in java 8  
how to load high volume of data through a api  
what would be security compliance  
how can we split and transform the data if data are in high volumns  
rest few statements form simple DML  
sql query like aggregate function uses and performance tuning  
Design patterns  
Microservice design patterns for inter communication  
Consolidated extract report from many microservices  
how to schedule  a scheduler for monthly  
1) Write a program to get student age greater than 20 and 25  
2) how to Consume external API  
3) Write a code for student class having id,name ,age ,address in Spring Boot with method  
4) What is Spring security  how to implement in your project  
5) Microservices advantages and dis advantages  
how to load 1 million data in the database  
Write a sample code snippet  
If I want to display the data of rows containing 1 lakh - what is the best possible way  
Write a sample code snippet.  
How to increase throughput and reduce latency from the database side.  
Concat the listObj from 2 different lists  
How to increase the performance of the application.  
How do you extract report from many datasource and high volume data in db.  
Kafka topic related scenario questions.  
Naeelakath  
How to fetch the data (write a query) in your application  
abstract class and interfaces in your applicatio  
How to PR your code  
How to use Inheritence in your application  
Hashmap internally working  
Write a program to 2nd higest salery employee list in Java8  
Write a MySQL query maximm salery in employee table  
How to intenally working Despatcer Servlet  
How to ConcorentHashmap Internally working  
Spring Bean Life cycle  
Micorsrvice Architecture & Monolithic architecture  
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1. Monolith vs Microservices which one is better  
2. Challenges with Microservices  
3. How to handle transactions in one Microservice  
4. How to handle transactions if it spans across multiple microservice  
5. What to do if a microservice involved in a transaction is completely down  
6. Write code to create a card from controller to repo layer(share the screen and type in notepad)  
7. Write code to sort cards by card type and card category in java8 using streams(share the screen and type in notepad)  
8. Write a query to sort cards using the same criteria  
9. Write a query to sort based on transactionLimit and get the top 10 with most transactionLimit  
10. What are solid design principles  
11. What is strategy pattern.  
1. Write controller,service and JPA like structure for Employee  
2. Employee can have a manager ,so find the manager id for the employee  
3. To find sum of the salaries of  all the employees under each manager  
4. write sql query to also to find the same  
5. Discussion on Hashmap implementation.Resolution techniques for collisions.  
6. Exception handling for the anomalies in the above cases.  
7. Group employee based on department and then salary using java streams  
8. Self join related questions  
9. OnetoMany mapping in Hibernate, code structure for the same in java. eg. Manager to many employees  
sql query to get count of employee joined in year 2024  
sql query to get count of employee joined in year 2014-2024  
java code to print count of employee year wise who joined from 2014 to 2024  
api code for above java scenario

[11:17](https://cognizant-2024.slack.com/archives/D07BY80A72A/p1720763228627689)

Sadique Husain Chaudhary

1. static keryword usage  
2. Create endpoint to addProduct in DB  
3. Design liftSystem classes, methods, atttributes  
4. use stream to return map of productId and Product object  
5. SQL Query to fetch employee Count who joined in last year  
6. Select only uniques employeNmae form employe table  
7. Fetching 1 million recoreds from databse Aproach to be used  
8. Java 8 features  
9. How you handled the security of the applicationWrite the java code for employee fname and lname to find the non-repeated names.  
Write code to get web request in controller for employee and store it in db.  
For above if we have 1000 request body data and for same id fetch the address from another table and combine the list with both the datas and display.  
For above how we can avoid for loop and initially do with sql query with java  
Write this pseudo code using java8 features as well.  
If suppose we receive the exception in repository while storing the data, then what will happen  
How to tackle this situation and what impact will be there with other microservices  
Spring boot related annotations, patterns.From Post request you Got employee id , name and Last name . from Db you get employee I and address , merge this and sent it to UI  
lift system  
map in Stream  
stream API  
functional interface  
if 2 interface is have same abstract method and a class is implementing both then which one will be called  
sql query for getting unique name having  distinct employee full name1 write sql query to filter item based on manufacturing year and count the same.  
2 write sql query to filter item based on product initial name basically like query.  
3 java 8 api filter item from list based on manufacturing year and group it by product name.  
4 java spring boot syntax for get api based on manufacturing year and product type and group it by product name and manufacturing year.1) explain the architecture of your project  
2) how you microservice loosly coupled  
3) how you decide which type of communication is good for microservices.  
4) why to use kafka and internal working of kafka  
5) how consumer consume kafka.  
6) how to deal with large amount of data  
7) when you use relational and non relational databases  
8) what you are using for CICD pipeline  
9) Junit  
10) print common element from 2 List1) map key as object , then what are the steps to design the object2) map values as object then how to prepare a list of only two fields of those objects3) Regarding project asked more questions4) Apache Kafka vs Rabbit MQ5) Lets a bank is handling thousands of transactions at same time, then how will ensure data integrity and no loss on data . how multi thread scenario will be implemented here6) how to achieve asynchronous transaction management , using kafka and rabbit-mq7) how to achieve synchronous transaction management in a real time bank scenario8) spring vs spring-boot9) how to stop a request to not to go to DAO layer after passing through multiple layers. and how to throw exception here.10) how to stop a request to not process at any point of time in a real bank scenario.  
11) we have four methods , one method is having class level synchronization  , second method is having object level synchronization  , third method is having synchronized block and fourth method is method level synchronization . And we have multiple threads are trying to access all four methods at a time, then what will be happen  
12) multiple thread are trying to access same bank account , then what will happen and how will you resolve it  
these are the questions asked most of the are multi-thread and real time banking scenario questions  
and others are event based system questions  
They are looking for a full-stack developer with front-end , back-end ,microservices and cloud experience as well.  
1) Coding  Convert infix expression into prefix expression. Approach to it.  
a) ab+c+de  
b) (ab+c)(de-f)  
2) Currentlast project architecture. More questions on this.  
c) How multiple components communicate  
d) How security framework implemented  
e) How microservices implemented  
f) How event based system implemented  
3) Multi-thread questions.More questions on this  
g) Executer framework vs concurrent collections  
h) Concurrent hashmap internal implementation and how it works in multi-thread scenario  
i) Equals and hashcode contract and how will it works in hasmap , if two objects gives same hashcode then how will it works .  
j) Deadlock situation in real time and how to resolve it.  
4) Functional interface vs interface vs abstract class.  
a) Differences bw them.  
b) In real time scenarios which one you go for.  
c) Two functional interfaces have same default method definition and a class implements both interfaces then which default method will be called at run time.  
5) Db related  
a) Sql query for 3rd highest salaray  
b) Join types and explain  
6) Spring related, more questions on this  
a) Data source config and flow of data in a restful service. And its implementation.  
b) Spring security  
c) Oauth2  
d) AOP and real time examples  
e) Spring annotations , more questions on this  
7) Any cloud experience  
8) Any UI framework experience  
9) Java 8 coding related  
a) List of employees , how to get employee details of 2nd highest salary in each department or a particular department.  
b) BiFunction , BiPredicate related  
c) Collectors , Optional class  
10) ORM frameworks  
a) How to connect multiple databases  
b) How to ensure a request to target to a database  
c) Caching mechanism  
d) Primary key with multiple columns  
11) Any Nosql experiencequery to get count of employees dept wise  
microservices working & structure  
how 2 microservice communicate  
qualifier use with scenario  
if list is final,can we add element  
hashmap vs sync hashmap  
design patterns  
thread schedular  
exception in spring boot  
eureka server

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Sadique Husain Chaudhary

Authentication & Authorization,how to implement?  
Questions in Spring security.How to prevent a user from accessing a GET request.  
String s = .\_.\_.\_\_..\_\_.\_.@#\_.\_..\_  
where .\_ replace with \_. with out using functionsprogram on number of occurrences of a number in an array:  
input:  int[] arr = {1,1,1,2,2,3,3,4,4};  
output:  1  > 3times, 2  > 2 times, 3  > 2times, 4  > 2times  
1.    Hibernate ddl2auto create vs update.  
2.    Pagination in spring boot. What mechanism to avoid duplicates while using pagination.  
3.    How to call multiple microservices from one Get API  
4.    getBy vs findBy  
5.    how to create our own immutable class  
6.    which http method used for CSV file uploading and what’s the data type.  
7.    Difference between ElasticSearch and NoSql DB  
8.    Ecommerce website architecture  
9.    How to increase performance in SQL query  
10.  Can we use POST method instead of GET for getting data  
11.  How to make field required in REST API  
12.  Can we call Throwable in Catch block1)    A CSV file has posted from Updated with a detail of transaction on stock purchase.  
AccNo,AccName,secCode,secName,amount,Type  
100,Steve,HDFC,HDFC,100,Buy  
100,Steve,HDFC,HDFC,1000,Buy  
100,Steve,HDFC,HDFC,50,Sell  
100,Steve,HDFC,HDFC,100,Buy  
101,John,TCS,Tata Consultant Service,100,Buy  
a.    Normalize the data given in csv as RDBM structure.  
b.    Write a SQL to find the maximum amount in the transaction  
c.    Write a SQL to find second largest amount in the transaction  
2)    Application contains connection with mysql , mongoDb. Implement Transaction management to rollback if any one of source has failure while persist data.  
3)    Request has passthrough number of microservice in a Existing application, Calculate the time take for the request with minimum changes.  
4)    A microservice invoke a third party call to get data to generate response, implement a number of retry then alternate action if the service has failure  
5)    Input has nxn number of matrix with sorted values write sudo code to find given number from the matrix.  
2,4,6,  
8,9,12  
18,21,251. There is a list of number from 1 to 20 and there are three threads which will print the numbers  
Thread-1 will print numbers which are divisible by 3  
Thread-2 will print numbers which are divisible by 5  
Thread-3 will print remaining numbers in the listHow will you approach this and what if numbers to be printed sequentially as well from 1 to 20.2. There is an array of numbers and given a variable K (let say has value 4)  
Need to find pair of numbers in the list such that when you divide them the remainder is equal to KOrNeed to find pair of numbers in the list such the when you sum then you will get the sum as K.  
3. Need to complete the code for the below ‘check’ function:  
public boolean check(String target, String[] arr) {  
              // To-Do}check("abcdef", ["ab", "cd", "abc", "de", "def", "ef"]);  // true  
check("xabcdef", ["ab", "cd", "abc", "de", "def", "ef"]); // falsegiven array of String and a target string need to find out if the strings in the given array concatenates and form the target string. If form then return true else false.4. Remove duplicate characters in the given string. Below are the constraints needs to be followed:  
a. Can’t use any Collection like Set, Map for duplicate character checking  
b. Time complexity should be O(n)  
c. No use of String comparison method  
d. Not take each char and compare it with string or other character  
e. Return value should be string without duplicate characters.Theory Questions:  
1. What are the new features introduced in Java8  
2. What are functional interfaces and why they introduced in java.  
3. How to make immutable classes in java.  
4. If you have a user defined class, and stored in hashmap using object as key. How to approach that (equals and hashcode overriding). And if you change one of the state variable for the object then you won’t be able to get the object, how will you approach it (making class immutable – solution).  
5. How conflict in dependent bean creation handled which annotation to use (Qualifier and Primary annotation)  
6. Difference between Spring and Spring Boot  
7. Features of Spring boot  
8. Difference between Spring Boot and Spring MVC (asking about dispatcher servlet flow)  
9. How to do transaction management (ACID transactions) in spring boot (jdbcTemplate)  
10. What are Intermediate and terminal operations in Stream API and also examples of them.  
11. Which authentication mechanism you used in your previous project.  
12. What are @Autowired and @Resource annotations