**SAP Lab Interview questions for SAP Microservices**

**Saikiran-Rajesh,Basava**

1. Tell me about your projects , and technologies with you worked  
2. Internal working of Garbage Collector in java  
3. Write a java program for removing duplicates from an array without using inbuilt function  
4. Write a program to reverse a long string for every 5 character example String s = "Technical Discussion"  
   output = "inhcet" without using reverse inbuilt function  
5. How to write immtability class in java  
6. why strings are immutable  
7. How internally stack and queue working.  
8. SQL query to return total number of employees for particular departmnet  
9 For immutability class if we are taking date as an type , can we change it ?  
10.what is flat and flatmap  
11.How you are ensuring security in application . explain  
12.How you doing Exception handling , what exceptions u have faced ?

**Sreejith-Rajesh Basava**

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**Priya Mishra- Rajesh Basava**

1.Tell me about your projects and it's technology  
2.which design pattern you are using in projects  
3.Write a code for proxy design pattern architecture  
4.Internal working of hashmap  
5..put method internal working  
6. What all collection you have used so far , explain  
7. Features used so far in Java 8  
8. How streams work internally in java  
9. @springBootApplication explain  
10. Explain @restController and few annotations internal working  
11. Database table structure for given scenerios , Did some changes and asked to change structure accordingly .

**2nd Round Hari Teja:**

**Introduction**

Last project in detail

Project architecture

Any challenging issue and how I resolved it

There are 2 clocks, each starts at same time, but the second clock runs 5 mins slow for every one hour. When exactly both the clocks show same time?

Given a string eliminate all continuous duplicate values.

Given a string eliminate all duplicate values

There are 2 threads, one have odd numbers and the other even numbers. Implement these threads to get an output of 1,2,3,4,5,..... Values

**Nayana Jose: Rajes Basava**

Q1 :- what is garbage collector. Explain working

Q2 :- what is meant by immutable class.

Q3 :- if you have input as string "interview" and number as 5 print it as "retniwei". Every 5 words should be reversed and append

Q4:- input string :-

{[]}

Output should be true

Input string :- {[(]}

Output should be fasle.

Every opend symbol should be closed and balanced.

Q5 :- How to design a database for an organisation with dep wise total employee details

**Indhuja Dharmaraj(Lakshmi Kant’s area Interview)**

**) get even numbers from Interger array.**

**2)what is the purpose of boxed()**

**3) how can we stream integers without using boxed()**

**4)Class Test{**

**public void test(Object o){**

**}**

**public void test(String s){**

**}**

**public void test(Integer i){**

**}**

**main(){**

**test(null);**

**5)what is the purpose of intern() method**

**6)How to find LinkedList has Cycle, and return the origin node.**

**7)remove duplicates in sorted array, with space complexity as O(1), time - O(n),**

**8)reverse the string w/o using inbuilt methods such as split.**

**9) Design pattern used in project**

**10) Spring Interceptors, custom interceptors**

**11) Spring profiles**

**12) why yml property**

**13) role in deployment process**

**14) how can we handle, if P1 Regression has come in deployment.**

**15) branches used in GIT.**

**16) how can we build in dev and after that what happens**

**Vineeth Anand(Lakshmi Kant’s area Interview)**

Questions asked by Deepak(Sap Lab)  
1. String overloading exapmlepublic class TestOops {  
    public  void test(Object o) {  
       System.out.println("The Object Method called.");  
    }  
    public  void test(String o) {  
       System.out.println("The String Method called.");  
    }  
public static void test(Integer o) {  
       System.out.println("The Integer Method called.");  
    }  
    public static void main(String[] args) {  
        TestOops oops = new TestOops();  
       oops.test(null);  
    }}2. Remove the duplicate from given array by streams  
3. Linked list check cyclick issue and find the orgin of cycle  
4. removed duplicate element from array with various approach and say the time complexity

**Managerial Round**

1. Build a queue using linked list  
2. Fibanocci series  
3. 9 marbles and weight machine is given. out of 9 marbles 1 have high weight and other 8 of same.  
How much steps it takes to find the high value marbles  
4. Frog is in well. it goes 3 step foward and 2 set down this follows subsequently  
how much time it take to go out of well?  
5. Introduction and questions from project.  
6. Any performance related issue u face and fixed?

**Shalu Raj**

Program to reverse an integer. Input: 1234 output: 4321  
Program to create a post rest endpoint  
Program to reverse a string with a count Input: HELLO as string and 2 as count. Output: LOHEL  
Custom exceptions  
Multi threading  
Synchronized keyword  
Why using mongodb among other nosql dbs  
Exception handling (edited)

Design patterns  
Microservices vs monolithic  
Comparator vs comparable  
When to use non relational DB over relational DBCoding:  
1: Create a singleton class  
2: input is list of students(name, age, marks) and sort them based on mark and then based on age  
  
s1 A 30 88  
s2 B 28 95  
s3 C 27 85  
s4 D 31 95  
s5 E 26 98 output: E, D, B, A, C3: Write a logic to break out from all the for loops without returning from current method For {  
    For {  
        For {  
            For { }  
}  
}  
  }

**Sujeet Kumar Maity**

Introduce yourself  
what ae your current responsibilities in the project  
how do you go about your day in completing your tasks  
share any complicated task which you have received in your current project and how have you resolved it  
Hashmap questions  
why is the complexity of hashmap O(1)  
which collection would you prefer if you have a lot of insertions and deletions  
diff b/w put and patchprogramming:  
Given an one-dimensional integer array A of size N and an integer B.Count all distinct pairs with difference equal to B.Here a pair is defined as an integer pair (x, y), where x and y are both numbers in the array and their absolute difference is B.

**Rakesh Kumar:**

Q. explain whatever you have done in microservice.

Q. what type of parameter we need to take care when we create microservice architecture.

Q. transaction management from one service to another service calling in same microservice.

Q. transaction management from one service to another service calling in different microservice.

Q Type of Transaction in data base.

Q when we are calling from one microservice to another microservice then how to handle response? consider all these Scenario.

Q. how to fixed bug in micro service.

Q. what you are using for logs.

Q. what is Circuit breaker and RateLimiter.

Q. How we can implement Circuit breaker. and explain circuit breaker stages.

**Rajveen:**

1.Explain me about the oops concept and advantages of each.  
2.Explain in detail about method overloading and overriding  
3.What is IOC concept in spring.  
4.What is dependency injection and how many types of injections are there in spring.  
5.When to go for setter injection and constructor injection  
6.What are all design patterns you know and explain about those in details with real time use cases.  
7.What all UI technologies you know like JSP, HTML, CSS, Jquery , Ajax

**Nandini:**

Spring boot actuator.

Spring boot core component.

Spring boot initializr.

Spring yaml configuration.

Spring boot annotation.

spring boot profilers.

how to debug spring boot application.

Spring Depndency injection.

what are the use of @RestController.

what are the xml configuration in spring boot application.

**Kuldeep:**

If two feature branches have different commits how to handle in github

Experience in Jenkins pipeline

Do you have experience in SAP

How to make outer call from a microservice

Different types of annotation in spring boot application

What is Rest Controller

What is actuator and Use of Actuator

**Mohiuddin:**

What do you understand by springboot  
Give 3-4 annotations of spring boot  
Why do you use springboot over spring  
What is difference between springboot and nodejs  
What is profiling in springboot  
Does springboot have xml configuration  
An idea about SAP-RAP and  SAP-CDS  
Knowledge about GIT  
Discussed git features branch  
What do you mean by microservices  
How do you use microservice  
What are the benefits of using microservices

**Prasad:**

Design and stack used in previous applications

Wrapper Service/Facade pattern

SpringBoot service with timer/health checks. Should one service wait if other is down.  
Easiest way to to deal with stale data in a cache

What are web services

What is Rest architecture

Differrence between PUT and PATCH

Can you send POST Body in GET

How to handle Test Case if visibility of a function is private.

Object instantiation of a abstract class. What happens when super is called.   
Java is pass by ref/pass by value?

**Supriya:**

1. Java 8 Questions like FunctionalInterface
2. SQL vs NoSQL
3. Remove duplicate elements from a sorted array
4. What is time complexity of ArrayList and LinkedList and why explain? For both search and insert/delete
5. How would you iterate HashSet
6. Difference between Spring MVC and Spring Boot.
7. Difference you found out in SOAP and Restful Webservices? Which one is more convenient
8. Have you ever worked on Microservices and have you ever worked on Cloud technology

**Shaktivel:**

1.About Microservice Arc.

2.MySql - find the highest paid employee

3.MySql - groupBy dept.

4.Write one Complete GET API flow, in a text file Controller, Service, Repo and Enity.

5.Path Variable and RequestParam.

6.About Maven, what are availble in POM file and Build profiles.

7.Count the number of words in given sentence from a file.

8.Agile processes.

9.Bean scope.

10.CI/CD pipeline flow in your old project.

11.Design Patterns and explain your fav.

12.What is your coding percentage on daily work and do you have exp in client call handling?

Spring Boot

1. Spring vs SpringBoot

2. Annotations, @Transactional

3. Spring IOC

4. Spring Interceptors

5. Spring modules

Git

1. Fetch & Rebase

Java

1. Java Multithreading

2. Java 8 Stream

3. Java Programs "aabbatcdefea" -> t, find the first non repeated char

4. Design Patterns

Others

1. Microservice Architecture

2. Message Queue

3. CI/CD pipeline, delivery vs deployment

4. Kubernates, Docker

5. Performance Tuning

6. Log grouping -> I explained about Kibana dashboards to groups the log

7. Microservice Connections, Synchronous and Asynchronous

8. Working flow of Kafka

**Babasaheb:**

1. What are the wrapper classes in java and when u will use them?  
2. what are the patterns in java?

3. when u use factory pattern?  
4. how will u make hibernate database connection

5. write the JPA entity class for employee table

6. Tell the internal hibernate steps when u fetch the any entry

7. write the full controller class for fetching employee by id

8. how will you fetch highest salary emploee from ArrayList  
9. write a query to fetch employee count by dept

10. What will be the output  
 String s1 = "Test"; String s2 = new String("Test");

SOP(s1.equals(s2)); SOP(s1 == s2 );

explain the difference.

11. tell the names of hibernate classes involved when u fetch entry

12. what is main difference between Spring MVC and Spring boot

13. how you decide to create new microservice

14. Tell the recent project structure

14. what is web container

15. what is Generic in java

16. difference between JVM and JRE

17. what is maven and POM

18. what is servlet

19. how two microservices communicates each other

20. what is difference between ClassNotFound and ClassDefNotFound Exception

21. write a code to fetch Accholder details by account id (consider exception handling, numeric account number validations)

22. write a program to count spaces in string.

**Vanita:**

1. Kafka Components

2. How to get data from kafka topics without consumer

3. Difference between JRE and JDK

4. How to delete dublicate records from the table

5. performing persistance in 2 seperate tables and second table persistance getting failed so what we have to do for rollback first table persistance using spring data jpa

6. what we have to do for communication between multiple systems or application, scenario like one application is in cloud and other one is third party application how cloud application communicate with third party application.

7. write query for department wise count for those employees which have salary > 10000.

8. explain your project architecture.

9. serialization and deserialization and where you have used in your projects.

10. which collections you have used.

11. list of employee objects and want to sort emplyees in list based on salary how you can do it.

**Randhir:**

1. Why class is public and can we make it as private, if we make it as private then which error may occur?

2. Explain in details about main method? (Deep discussion)

3. Explain about System.out.println()? (Deep discussion)

4. What will happen internally while compiling and running the code?

5. Internal difference between compilation and running program and what will be the output of both?

6. What is the Hashmap and what is internal implementation?

7. what are the method used on Hashmap internal implementation and why?

8. Is equals methods in hashmap check for all keys, if yes or no then why?

9. Time complexity between Linkedhashmap and Hashmap.

10. Define time complexity of O(n) and O(1).

**Parvat:**

1. Project architecture.

2. How Kafka is implemented  in your project. Why did you come for Kafka, without kafka what are the difficulties you faced?

3.How you are publishing the message to kafka. How do you identify whether to publish messages consumed properly or not?

4.How are you handling the authorization and authentication part in your project?

5.How are your clients accessing the authorised sites?

6.Write custom  Collection Classes.

7.Flow of Exception handling.

8. Diamond concept of opps.

9. Concurrency,Multithreading concept.

**Jhilik:**

1.ArrayList and Linkedlist Difference.

2.Why insert and delete performance is better in linkedList than arraylist.

3.Hibernate configuration property name which provide better performance.

4.How we can configure hashtable,so that read operation is not lock.

5.Design a application which have zero down time for producing datas and subcribe datas.

6.How we handle filtration  in springboot Application.

7.access modifier in java.

8.How we can handle duplicate in Set Interface.

9.Internal architecture of HasHMap.

10.Inner class concept.

11.how many way we call static inner class in java.

12.Threads in Java.

13.executor framework in java.

14.Generic class naming convention.

15.Why Generic is use in java

**Saurabh:**

1. Annotations in spring boot .

2. How @Component annotation works . need of the same .

3. How JPA works without any configuration done in application.properties file.

4. Concurrent hashmap in detail.

5. How multithreading is implemented in your project.

6. How kafka queues are configured in your project .

7. purpose of acutator .

8. IOC concept in details .

9. Components of springboot that one has worked upon.

10. Oauth token configuration and what is sent in the token.

11. psedo code to implement linked list.

12. How spring cloud works . Service discovery in detail.

13. type of fault taulrant mechanism used in project.

14. Lamda funtional inteface implementatio to get unique records for an entity member.

**Praveen:**

1)Explain the last project architecture.   
2)What are the limitations to make String as immutable and why its needed in Java?  
3) Define the memory area of below strings. (Deep discussion with scenarios)  
   String a = "abc";  
   String b = new String("abc");  
4) Output of the below query and why? Is this same for Integer object?  
   public class MyClass {  
    public static void main(String args[]) {  
      int a=5;  
      int b =6;  
      swap(a,b);  
      System.out.println(a);  
      System.out.println(b);  
    }  
      
    private static void swap(int x, int y) {  
    int temp = x;  
    x = y;  
    y = temp;  
}  
}

5) Difference between call by value and call by reference? (deep discussion)  
6) Circuit breaker in Microservice?  
7) Is simple java class can be a restful api? If, yes then what are the rules?  
8) Difference between ArrayList and HashSet?  
9) Why HashSet having unique elements?  
10) What is Rate Limiting?  
11) Difference between Post, Put and Patch? (Deep discussion with scenarios)  
12) Response type of DELETE and if no data is there then what will be the response type? (Some scenarios)  
13) Difference between String constant pool and Heap area? (Deep discussion with scenarios)  
14) How to create immutable class?  
15) Use of Functional interface?  
16) Can private methods in Java be accessed by classes of another package? If it is possible then how? (deep discussion)  
17) Can abstract class have a constructor? If yes, Can we override the abstract class constructor and how? (deep discussion)  
18) Discovery service in Spring Boot? (Deep discussion with scenarios)  
19) Difference between below two statements.  
    List a = new ArrayList();  
    ArrayList b = new ArrayList();  
20) What is Blue-Green approach?  
21) How to achieve fault tolerance in Blue-Green deployment of microservice?  
22) Have you worked upon Junit Testing by which tool?

**Girraj:**

1.       Explain your project and roles and responsibility

2.       What challenges are faced in your current role

3.       What need to take care as on priority when you migrate(Version) any BD server (DB server is on live)

a.      What is pre verification/operation for DB Server migration? (what case ll cover in Dry run)

b.      Is there any API or approach to use to avoid required down time for application while migrating the Server(or can reduce down time)

4.       What is saga Pattern in Microservices?, How orchestration is working in this?(in Deep, how many type of Saga patterns)

5.       What is Circuit breaker and what is the use of it.

6.       How to manage the server load balance(Explain ribbon in details)

7.        What is Spring

a.       What is inversion control

b.      What is inversion and what is the control (in details)

c.       What is the purpose of inversion, why do we need this?

d.      What is controlling in inversion for ‘inversion controlling”(explain control and inversion separately)

8.       What is the performance tuning

a.       What kind of action is required to improve the application performance?

b.      What kind of action is required to improve the BD performance?

c.       Which tool is suitable for performance tuning for application and what are the necessary steps to take at DB end to improve the performance of the application.

Q.1. Write a program to cout the 'abc' from below String.  
String str = "abcefgabchijabc";  
----or-----  
String str = "abcefgabchij";

Q.2 there are two tables Item  and Order, find out each item how many times ordered

|  |  |  |
| --- | --- | --- |
| Item | | |
| Id | Name | Price |

|  |  |
| --- | --- |
| Order | |
| Id | Ordered\_Date |

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**Solution:-**

public static void main(String[] args) {  
String str = "abcefgabchijabc";  
int count = 0;  
char c[] = str.toCharArray();  
String temp = "";  
  
for (int i = 0; i < c.length; i++) {  
temp = temp + c[i];  
if(temp.contains("abc")){   
temp = "";  
++count;  
}  
}  
System.out.println("abc : "+count);  
}

1.      What is your daily work TO-DO list/task and what are the daily steps?

2.      Have you written test cases? And how many types of test cases are written in your application.

3.      Write a program:- To find the union and intersection of two unsorted arrays

a.       What is the complexity of intersection and intersection?

b.      Optimize the code to reduce the complexity.

4.      Write a program for user define custom exception

a.       How to handle custom exceptions in calling places.

b.      This created a custom exception, checked or unchecked?

5.      HashMap internal implementation

a.       Why need to convert linkedList to balance tree in hashMap bucket

b.      How to reduce balance tree threshold  in hashMap

c.        What is the java hashmap complexity for: **get** and **put** method

**Jamil:**

1. project architecture.  
2. What is the difference between the webservice and restful web service?  
3. whether java uses call by value and call by reference.. and why? //deep discussion  
4. anonymous inner class vs lambda which is powerful and why.   
5. if we have a local variable in a method, can we change its value using lambda? //deep discussion  
6. access modifiers and differenecs?  
7. what is a functional interface and what are advantages of functional interface.  
8. Difference between post put and patch?  
9. Redis Cache Implementation? //deep discussion  
10. try{  
       return = "10";  
    }  
    catch(Exception ex)  
    {  
return = "5";  
    }  
      finally  
     {  
return = "100";  
      }  
output??

**Nalini:**

1. project architecture.

2. How many microservices are implemented in your project and Why do we have a eureka server? What is the significance of that?

3. What are the DB configurations related to our microservices. is all the MS's connected to the same DB. If that is the case how are we maintaining the transaction management.

4. suppose MS-2 is having multiple instances deployed in the server, how will you make sure which instance of MS-2 is being called from MS-1?

5. how do you know whether the MS-2 is up and running when you are calling it from MS-1.

6. how are you authenticating the users for the microservices.

7. What is the difference between the webservice and restful web service?

8. By what factors a webservice will become a restful web service?

9. whether java uses call by value and call by reference.. and why?

10. what is the use of wrapper objects(Integer) when we have primitives(int). whether primitives are defined by java?

11. anonymous inner class vs lambda which is powerful and why.

12. if we have a local variable in a method, can we change its value using lambda?

13. access modifiers related questions

14. reflections

15. garbage collections related questions

16. how do we mock a private method

17. What is difference between mutable and immutable , what is the use of immutable class in java

18. internal implementation of hashset and hashmap.

19. What is the data structure used internally for a hashset?

20. difference between hashmap and hashtable?

**Manan:**

Explain your microservice project architecture  
How do Microservices interact with each other in your project, what are different microservice?  
What are web services and how you can say it is rest?  
what is the benefit of rest?  
Implementation of caching, which data structure you will use.  
what is the purpose of caching, why do we use it?  
Scenario base - if  user hitting 10 services and its start consuming all the resource, how you will solve this problem  
how you will restrict that it will hit only 10 approaches for it.  
Different instances of the application will have different objects so how to maintain a count  
Anonymous inner classes vs lambda expression (What is the use of lambda expression)  
Different class Loaders in java  
Access modifiers (how JVM identify it's private or public or protected)  
call by value or call by reference ( Deep discussion over it)  
How HashSet and Hashmap are interrelated( Equals and hashcode implementation)  
Some output questions on call by value.  
Why in collection eg Set<Integer> use Integer not int as a primitive type.

**Sukla:**

1. Previous project architecture

2. Difference between POST, PUT and PATCH

3. JAVA 8 features

4. Display employee list using Stream partitioning

5. Design Custom Cache

6. Mongo DB master-slave configuration

7. CI/CD pipeline

8. Transaction management in a distributed system

9. Spring validator

10.Docker image creation

**Shivangi:**

1.Introduce yourself.  
2.Explain the project on which you have worked upon?What kind of things you were working on?  
3.Was it monolithic or microservice based?  
4.So are you comfortable on microservice design i.e how they interact with each other and how it fuctions.  
3.As it was microservice arhitecture based project,So it might be containing different microservices.Can you draw basic block digaram for microservice arhitecture of your project on notepad?  
4.Explain how microservices were interacting with each other in your project?  
5.What kind of load you were expecting which your microservice can handle i.e how many request per second?  
6.Suppose it is 100 request per second as you say,but if we increase the request from 100 to 10 lakh request per second to microservice.So application will get down?So what we can do in this scenario so that functionality of the application does not get affected?  
7.So as u say we'll create multiple instances of each microservice for eg. just take Microservice 1.1 which is pointing to DB1 and another instance Microservice 1.2 which is pointing to DB1.If any request comes from UI to Microservice 1.1 for update and another one to Microservice 1.2 for delete.So what do you think what would happen in this scenario?Will UI get crash?  
8.If we did it by async i.e kafka,so how it will it behave?It will be deterministic or non-deterministic?  
9.Suppose if Microservice 1.1 and Microservice 1.2 are listening to kafka topic.Let's say topic "A".I send a msg to topic "A".How I'll ensure only one of the microservice(either 1.1 or 1.2) consumes the msg as both are listening to same topic "A".  
10.What is consumer group in Kafka?  
11.Implement a cache in Java.Write an application to write cache data in memory.Write pseudo code for the same.  
12.Can we declare hashmap with key and value both as Integer?  
13.Can we declare hashmap with key and value both as int?Explain the reason in both cases either yes or no.  
14.Difference bewtween HashSet and ArrayList?  
15.How HashSet achieves duplicacy?  
16.Are HashMap fast enough or slow enough or it just provide key value pair because of which we are using ?  
17.Time complexity of HashMap?  
18.How we store data in HashMap?If same key in HashMap what will happen?If there is no HashMap collision,then what would be the complexity in that case?  
19.How many times we can reuse a Stream?  
20.What is terminal operation in Stream?  
21.What is difference bewteen primitive data type and wrapper classes?Why do we need to convert it into objects when we already have primitive data type?  
22.Tell one of the toughest problems you have faced in your development on which you have worked hard and solved it?

**Mumal:**1. Difference between @Controller and @RestController

2. What is @SpringBootApplication? What is its function?

3. Advantages of Hibernate over standard way of database connection

4. Disadvantages of Hibernate

5. Comparison of monolithic and micro services architecture.

6. How microservices communicate with each other? Explain in detail.

7. Example of microservice architecture

8. Architecture diagram of microservices in your latest project

9. Advantages of microservices

10. Java 8 features

11. Functional interfaces

12. What was the requirement of functional interfaces?

13. Examples of functional interfaces

14. Methods in functional interface

15. Function functional interface

16. Marker interface

17. volatile keyword

18. transient keyword

**Tejashwini:**

convert all characters of an arraylist to toUpperCase using Stream API - program

Design pattern

Singleton

write program for doubleton.

java 8 features

Functional interface

check if 2 strings are in actual String rotation - program

example

Actual string = "My Name is ABC"

Case 1 : is ABC My Name = true

Case 2: Name is ABC My = true

Case 3: ABC is MY Name = false

Controller vs RestController

Exception handling, runtime and compile time exceptions

ClassNotFound vs noclassdeffounderror exception

HashMap vs ConcurrentHashMap

Synchronized collections

how to synchronize arraylist

dependency injection vs inversion of control

Dispatcher Servlet

**Princy:**

package sap;

/\*\*

\* Merge two sorted linked lists and return it as a sorted list. The list

\* should be made by splicing together the nodes of the first two lists.

\* \*/

public class MergeList {

public static void main(String a[]) {

MergeList mergeTwoSortedLists = new MergeList();

ListNode l1 = new ListNode(1);

l1.next = new ListNode(2);

l1.next.next = new ListNode(4);

ListNode l2 = new ListNode(1);

l2.next = new ListNode(3);

l2.next.next = new ListNode(4);

System.out.print("Input:: ");

System.out.print("[" + l1.val + "," + l1.next.val + "," + l1.next.next.val + "]");

System.out.println("[" + l2.val + "," + l2.next.val + "," + l2.next.next.val + "]");

ListNode listNode = mergeTwoSortedLists.mergeTwoLists(l1, l2);

System.out.print("output:: ");

System.out.print(listNode.val);

System.out.print(",");

System.out.print(listNode.next.val);

System.out.print(",");

System.out.print(listNode.next.next.val);

System.out.print(",");

System.out.print(listNode.next.next.next.val);

System.out.print(",");

System.out.print(listNode.next.next.next.next.val);

System.out.print(",");

System.out.print(listNode.next.next.next.next.next.val);

}

public ListNode mergeTwoLists(ListNode l1, ListNode l2) {

//Take the Head Node

ListNode head = new ListNode(0);

ListNode p = head;

ListNode p1 = l1;

ListNode p2 = l2;

//iterate both the List

while (p1 != null && p2 != null) {

if (p1.val < p2.val) {

p.next = p1;

p1 = p1.next;

} else {

p.next = p2;

p2 = p2.next;

}

p = p.next;

}

if (p1 != null) {

p.next = p1;

}

if (p2 != null) {

p.next = p2;

}

return head.next;

}

}

/\*\*public class ListNode {

int val;

ListNode next;

ListNode() {

}

ListNode(int val) {

this.val = val;

}

ListNode(int val, ListNode next) {

this.val = val;

this.next = next;

}

@Override

public String toString() {

return "ListNode [val=" + val + ", next=" + next + "]";

}

}\*/

/\*\*  
 \* Definition for singly-linked list.  
 \* struct ListNode {  
 \*     int val;  
 \*     ListNode next;  
 \*     ListNode() : val(0), next(nullptr) {}  
 \*     ListNode(int x) : val(x), next(nullptr) {}  
 \*     ListNode(int x, ListNode \*next) : val(x), next(next) {}  
 \* };  
 \*/  
class Solution {  
public:  
    ListNode mergeTwoLists(ListNode l1, ListNode l2) {  
          
    }  
};

<https://leetcode.com/problems/merge-two-sorted-lists/>

1. Project Overview , whether application was used by internal or external users?

2. Thread Local, thread Pool

3. How will you use the thread for the different entities ?

4. ConcurrentHashMap Internal Working ?Can we use Hashtable to achieve the concurrency?

5. HashMap Internal Working ?where the hashmap objects are getting stored(Stack or heap)?

6. Serializable ? what will happen in case of Inheritance Parent class implement serializble and child class does not ?

7. Synchronization ? whether the synchronization will be applied to the class level ?

8. what is Session? if we have 2 entities and 1 entity need to be persist and from another entity need to read the data ?

9. difference between heap and stack ?

DB Query- Emp and Dept Table ,how to fetch the Dept count for the Emp

Joins

**Rajesh G:**

collection framework  
choice of datastructures for different scenarios  
arryalist vs linkedlist   
choose data structure for order management  
how to use objects in hashmap as key   
program to print count of vowels in a string  
program to print string in pairs   
program to print hashmap   
working of hashmap   
sql statement to output count of videos watched and author details ,2 tables given with user details , video details and videos watched by user details .  
project related questions   
program to print odd and even numbers using threads  
program to find dupilcate numbers in an array efficiently  
databases worked on   
modules known in springboot   
advantages of microservice   
communication between microservices   
fallback mechanism in microservice   
disadvantages of hibernate   
use of cache in hibernate   
get vs load in hibernate   
sql query to remove duplicates in a table with no primary key   
actuator in spring boot   
@repository uses   
git init uses   
git rebase   
hashset internal working  
when to override equals and hashcode

**Princy:**

1. Project Overview , whether application was used by internal or external users?

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Joins

**Koppala:**

1.Tell me about your self

2.what is the Bean?

3.what is IOC Container?

4.what is Spring?

5.use case:remove duplicates

class LinkedList {

int value;

LinkedList next;

}

class Remove{

public void removeDuplicates(LinkedList head){

}

6.ArrayList vs LinkedList difference b/w?

7.Dependecies injection?

8.Spring ouath token implementation?

9.What is use of HashSet?

10.Tell me your project flow?

**Neha:**

1. Tell me about yourself.

2.Difference between springboot and spring.

3. create a spring boot project and explain the project.

4.Given a signed 32-bit integer x, return x with its digits reversed. If reversing x causes the value to go outside the signed 32-bit integer range [-231, 231 - 1], then return 0.

Assume the environment does not allow you to store 64-bit integers (signed or unsigned).

Example 1:

Input: x = 123

Output: 321

Example 2:

Input: x = -123

Output: -321

Example 3:

Input: x = 120

Output: 21

Example 4:

Input: x = 0

Output: 0

Constraints:

-231 <= x <= 231 - 1

5.question relate to covert num into roman.

**Nishanth:**

1. What is role Actuator
2. Ways of communication between microservices
3. Asked to write Full end to end microservice Code with proper explanation of each layer e.g. Controller ,Service ,Dao layers
4. How we can perform REST call from one microservice to Another.
5. What is Stream in Java 8
6. What is use of @Service annotation
7. advantage of referring child class object with parent class reference
8. Asked to do one question on leet code given as below:

You have a set of integers s, which originally contains all the numbers from 1 to n. Unfortunately, due to some error, one of the numbers in s got duplicated to another number in the set, which results in repetition of one number and loss of another number.

You are given an integer array nums representing the data status of this set after the error.

Find the number that occurs twice and the number that is missing and return them in the form of an array:

Example 1:

Input: nums = [1,2,2,4]

Output: [2,3]

1. What is circuit breaker
2. Asked to write code on HashMap to show its working
3. Code to derive key from HashMap and find prime keys from them.
4. How Microservices communicate via Messaging Broker.
5. How to Handle responses when communicating from one microservice to other.
6. Advantages of microservices
7. Explanation of the last task on which you worked

16.Why and when to use POST call in REST API

Jayadeva:

1. Write singleton design pattern code.
2. What is prototype design pattern. Give one example for that(Explained the desingn pattern code and given example)
3. Cache in hibernate and its types of cache.
4. Spring beans and scopes.
5. How threads are reusable in executor framework.
6. Program to find the smallest missing positive number in the array.

Num = [3,4,-1,1]

o/P: is 2 (in the above array 2 is missing. We should neglect the negative numbers).

Ref: https://www.geeksforgeeks.org/find-the-smallest-positive-number-missing-from-an-unsorted-array/

Linju:

1. what is git? How does it work?  
2. How does git pull origin master works?  
3. How does rebase works?  
4. What are the process from committing to repository to deployment done in the project?  
5. How we identify if one of the service out of 10 is running slow?  
6. What are the microservice design patterns used in the project.  
7. What is circuit-breaker-pattern?  
8. How does HashSet work?  
9. If two employee objects needs to added in the HashSet, how does it check uniqueness?  
10. Do we need to override hashcode & equals for hashcode generation while adding objects to set?  
11. What is lambda expression?

Bhargava:

1. why Java is platform independent ??

2. differences between list and set ??

3. how hash set works ??

4. how to validate and skip impexes lines from importing based on some criteria.

for example if date of a product(medical) is expired, then that product impex should be skipped form importing

5. how to show a specific checkout step to anonymous user and that step shouldn't be shown to other users

6. tell me about hot folder process

7. Let's say I have a multi country site, now there are some common products which belongs to both the countries and country specific products

in this case, how will you prepare product catalog ??

Linju:

1. brief introduction  
2. What are the OOPS concepts?  
3. What are the types of polymorphism?  
4. What are the rules for Overloading?  
5. What are the rules for Overriding?  
6. What is serialization?Why is it needed?  
7. What all objects are not serializable?  
8. Write the code to print a list of strings that starts with A using lambda  
9. We have 3 classes in hierarchical order c extends B extends A, B is serializable.  
      a. What all objects are serializable  
      b. Which all constructors will be called on deserialization  
10. Write code to reverse a String  
11. Code to create a Linked List  
12. Casting in Java  
13 Write code for upcasting and downcasting  
14. What are the operations that Hashmap internally does on calling get(key)  
15. What is equals and hashcode  
16. What happens if we override hashcode to return only 1 value?  
17. Write code to create an immutable class  
18 What are collections  
19. Shown different scenarios regarding overriding and overloading, where we need to identify the working scenarios as well as error and the reason.

20. How can we exclude serialization of particular fields

Khalid:

1 .How to achieve polymorphism  in java .

2.what are the difference B/W runtime and compile time polymorphism .

3 .How to achieve multi inheritance in java .

4. What is functional interface  and give some example .

5 what is functional programing .

6. What is difference B/W stream and parallel  stream .

7 what are the rules for using parallel  stream.

8. How Set is working .

9 .Fail Fast And Fail Safe Iterators in Java

10 . How hasMap is working internally .

11. How to achieve pagination in JPA .

12 .How many type mapping in hibernate .

13. How to achieve bi directional mapping by many to many .

14.What is API gate way .

15 How to implement JWT token and we are managing the session.

16 . difference between observable  and promises in Angular framework .

17 life Cycle of thread and how thread executer framework is working .

19 .Difference B/W monolithic and microservices application.

20 What is Eureka server .

21 How to achieve transaction management in spring boot applications .

22. what are isolation level in transaction management .

23 .what is finch client and Rest template .

24 what is service registry in microservice .

25 . What is difference B/W function and bi functional interface in java 8

1. What are the access modifier can be used for class and where we can acces. (Write the code)

2.How to create the object static inner class. (Write the code)

3. What are the access modifier can be used for inner class. (Write the code)

4. How many ways we can access static methods? (Write the code)

5.Whihc are the classes and methods in SOP  and how its working  explain.

6. why we used static keyboard  in main method .

7 how the JRE identify the  main method and how its working .

8 What is hasMap and why we used it .

9 How hashmap work internally. (Explain with code)

10 .How we can use Employee class as key in Map .

11. Same object can have an equal hashcode.

12  .If hashcode  two object is same then Hashcode could be same .

13. if we override the Hashcode in class and returning always 1 for all object and the object is used as key in Map (Write the code and explain it)

14. if we override the Hashcode  and returning always 1  and alos overide the equals method  and that returning alwas true for all object and the object is used as key in Map (Write the code and explain it)  .

15 . If overriding Hashcode and equal method ,then what are the criteria required for that ,If  we used Class as key in HasMap .

Digya:

a) how you do testing in the previous project.

b) what are your roles and responsibilities in the previous project.

c) Row based database and column based database.

d) Based on what you tell in your day to day activity, he will ask some questions.

a) Internal implementation of ArrayList

b) Internal Implementation of LinkedList

c) Explain what has been implemented.

d) Time complexity of a few scenarios like if accessed one element in an array etc.

e) Find output. One program is given with multiple recursions. Maybe a sorting algorithm.

f) Given a number from 1 to 100. find the missing number from this sequence.

g) difference between stack and Queue.

h) Can we implement stack as Queue.

i) Project flow

Tell brief about yourself.

2. What Is bean, what are the scope of bean?

3. What is singleton and request scope?

4. What is serialization and how to implement serialization?

5. What is mutable?

6. Write recursive method for n or n-1 factorial

7. What is threadsafe?

8. How to implement singleton design pattern?

9. What is builder pattern?

10. Do you know collection stream api and what is this?

11. Print uppercase of each element from list using stream api

11.1 can we use forEach twice on the same stream method.

 Like:name.stream().map(name-> name.toUppercase())

.forEach(name->Sysout.println(name)  
. .forEach(name->Sysout.println(name); ??

12. What are the optional class available?

13. Can we execute javascript code in jdk environment?

14. Write sql query , find who all are the manager from Employee and role base table

15. Write sql query, find second highest salary from employee table

16. Have you used namedquery, nativquery in jpa?

17. What is controller?

18. What is dispachar servlet?

19. What is @pathVariable?

20. How to create one springboot application, what are the step required

21. What are the role and responsibility from your previous project?

22. Tell me your last assigned userstory or task for your development

23. What is swager? Is it good to use swagger  for restfull services

23.a Can we pass Database values from swagger?

24. Do you know any caching  framwork?

25. Do you know elasticsearch, sap cloud?

26. What is kibana?

27. Do you know any junit, how you writing jUnit test case, what are the feature are there?

28. What is @befor, @after in junit?

29. What is dao?

30. do you know groovi script?

31 what is Odata ?

32. Stack Program using Collection.Stream.

33. What is messaging, why we using it? what is Exchange in messaging ?

34. how to create Map of Integer and Integer from a list using Collection.Stream

  31> Explain the architecture of your current project.  
        Overall flow  
        tools, technology  
      
    32> Explain spring boot starters, dependency management, maven.  
      
    33> Explain the steps performed to create a springboot application  
      
    34> Why we prefer springboot over spring application.  
      
    35> Explain steps needed to create restful web service in spring boot.  
      
    36> Suppose I want to create an application like facebook.  
        You have 10 direct friends, your each friend will have some friends and so on.  
        How you will store data in DB ?  
        How will you code to access this data ?  
        How will you ensure that it does not go into infinite loop.  
          
    37> Suppose I want to create a recruitment website having recruiters , candidates, skills, jobs  data.  
        How will you design DB for the application ?  
        Explain entities, attributes, relationships  - DB tables their relationships  
        design SQL query to search candidates having skills 'java' and 'javascript'  
          
    38> Explain the design of restful web services for above recruitment website.  
      
    39> How to write junit test cases.  
      
    40> What are the security checks added in your application ?  
      
    41> What is prototype in javascript ?  
      
    42> your web service is accessing another web service which is not returning response.  
        How your web service will handle this condition ?  
          
    43> Did you work on kafka, rabbit mq. explain messaging  
      
    44> Explain the things you worked on hadoop big data,  
         Explain horizontal scaling. map reduce

***Binod***

1>Write the builder design pattenr in a real time code.

2)2 microservices are hardcuple or loose cupled expalin it.

3)Kibana Expain more details.

4)Write the Singleton Disgn patten code.

5)Explain About ORM .

6)Expailn the Microservies Artitecture.

7)Explain Mockito Jutint with Example.

8)Write the code implemeting with Serilization.

9)Expain the Lymda Exression with Example.

10)Explain Optional Class.

11)Expain the dateTime Of Java 8.

12)Expain what is Cache and type.

13)Hands on Expreence in cloud.

14)Write the Query for find the rank with emply name and 1 more query not listen proper.

15)How to work the Spring boot Give any example.

16)Expain RestApi With Example.

17)Hands on in microserviecs and Spring boot.

18)Is JVM and Cache both are same way working ?

19)Write the Recureseive factorial Code in java.

20)What are the role and responsibility from your previous project?

21)What is swagger? restfull services.

22)What is @befor, @after in junit?

23)Explain the architecture of your current project Overall flow.

24)Why we prefer spring boot over spring application.

25)Explain steps needed to create restful web service in spring boot.

26)Did you work on kafka, rabbit mq. explain messaging.

***Abhinav***

 ntroduce yourself briefly.

 What is the advantage of using Spring MVC? Why can't we use JavaEE or JAVA SE instead?

 What is Dependency Injection?

 How does UI components communicate to backend in Spring MVC?

 How does controller/ method binding happens in spring MVC?

* Do we need to annotate all the methods for binding them with URL path?

 How does JS binds JSON response to Model objects after getting response for AJAX calls?

 How does deadlock arises in JAVA.

 Write a program to implement publisher subscriber model.

 Write a program in which you accept an input array and a target value and return an array of size 2. The resulting array will have index of the elements in the input array whose sum is equal to the target.

* Optimize the solution.
* What is the time complexity of this program?

**Swati patra**

1. What is Hibernate, for what purpose we use and why this come as we have java jdbc connection available?
2. Compare the general database with NoSQL database (MongoDB)?
3. For what reason Optional class developed by oracle?

Don’t give functionality don't give methods what it is doing what not doing think why they developed

1. What Stream API is doing what is the border picture of this API?
2. Solve pub-sub situation
3. There are multiple APIS they are interacting something goes wrong how you will debug it
4. How to improve the performance of your application, don’t tell code wise?
5. There are client and stake holder present with you, suggest the approach or design the application and go deeper with DDD ?
6. Something might go wrong while system interact ,you want to design your system for that unknown scenario.
7. How to trace log and find out what goes wrong?
8. What is your project?
9. What roles have you played?
10. What were the problem faced by you how you have taken the approach with client on the project?
11. Have you used success factor?

Coding

Count number of words in paragraph

Code for condition What if many spaces available?

Unique words count if duplicates words present from paragraph?

Core java question:

Hashcode and equals contract

Overloading vs overriding

Can we overload if return types are different?

Case 1:

Class A{

Private method1(){}

}

Class B{

Public method1(){}

}

Case 2:

Class A{

Public method1(){}

}

Class B{

Private method1(){}

}

How overriding takes place in above cases?

Junit specific questions

Showed an error and ask to find the root cause?

SQL question

Using group by and joins few questions

Praveen

1. Given BST with the root node root, return the minimum difference between the values of any two different nodes in the tree.  
Input: [4,2,6,1,3,null,null], Output: 1  
  
2. Reverse string in place "This is a string" -> "sihT si a gnirts". Without using any external data structure. Expected time complexity O(n).  
  
3. Implementation of Singleton pattern class.  
  
4. Design Calculator App  
  
5. EMP = {EMP\_NAME, EMP\_ID, DEP\_ID}  
    DEP = {DEP\_ID, DEP\_NAME}  
  
   Give all employees and departments associated

**Abhinav Agarwal**

* Tell me in brief about yourself? What technologies you have worked with and brief description about your last project?
* What all collections have you worked with?
* How does HashMap works internally?
* Have you ever used any Tree datastructure? What is the use case for TreeSet?
* How does HashSet works?
* How comfortable are you with multi-threading?
* Suppose we have three threads: T1 - Prints 1 to 10, T2 - prints 11 to 20, T3 - prints 21 to 30. We want to execute the threads in an order such that, first T1 prints then T2 then T3 and again T1, T2 and T3.
* Are you aware of any Executor Framework implementation?
* Write down a basic implementation of ThreadPool class.
* Write a method to remove last element of LinkedList and return the resulting LinkedList. Here LinkedList is not JAVA's implementation but a custom linked list implementation class having basic functionality of linked list. It is having a Node class which is having A next Node reference and an int reference.
* Write a method to sort a given input Array. Do not use any Utility methods provided by JAVA.
* What is the best time complexity for a sorting algorithm?
* What all sorting algorithms are available?
* What all design patterns have you worked with or are aware of?
* Which is better, Factory pattern or Builder pattern?
* Write a basic implementation of Builder pattern for creating instance of class Employee having 2 members - name and id.
  + In continuation: Add one setter method for the name in builder pattern.
* How comfortable are you with writing SQL queries?
* Write a basic query to fetch data from Employee and Department tables which is order by department and each employee in department is ordered by salary.

Ganesh:

What is Immutable?

How will you make immutable?

Should be always map key immutable object or can we give mutable object?

What are existing Immutable Classes in Java

Singleton

1. Cloning of Singleton problem

2. Enum Singleton or not ?

3. How to overcome Cloning,Serializable,Reflection in Singleton?

4. How to do lazy initialing and what happen if multiple threads trying to get instance?

Serialziable

1. How to serialize?

2. How to prevent a member variable from serialization?

3. Entity has Child and Child is not serialiable. How to Save Entity and its children?

Thread

1. How to share variable across Threads? (Expecting purpose of Volatile)

3. How to make "actionName value" only for the current thread? (ThreadLocal)

4. What will happen if synchronized static method called by thread in multihtreading programming

Finally Block- Purpose?

StringBuffer/Builder and Reader What is use case?.

Spring MVC and data flow?

Factory and Builder Pattern

Proxy and Template Pattern?

What are all the patterns used in Your project (Expecting use case of Each Pattern)

How to handle SQL Injection?

Joins and Group by which one is effective. Example?

Configuration Hibernate?

1. Create Session and access

How to create REST API?

I have consturctor with multiple arguments. And keep on increasing, how to solve this problem (Expecting Builder pattern to explain)

A method has annotation. Is it good practice to keep annotation for each method?.

1. One To Many Relation in Hibernate (Based on comfortable in XML or Annotation need to explain. Definitly Mapping question will be there. So All Mapping need to know)

How would you design "Book My Show" such online application?

(Expcting Data flow and Transaction and DB Design and relationships)

Explain your current project and what tools used? (Expecting SDLC )

**Sanjana:**

1) Polymorphism and inheritance difference between them and implementation.

2) array List, Linked List and Hashmap explanation with implementation.

3) Thread its implementation

4) Method overloading and Method overriding explanation with implementation.

5) Exception handling

6) What is thread safe and deadlock

7) Write code for Deadlock.

8) Using recursion write a code to get star pattern

\*

\* \*

\* \* \*

\* \* \* \*

9) Method overloading and method overriding.

10) Use cases of mvc

11)Virtual polymorphism

**Sudipta K:**

1> Brief introduction of java experience ?

2> OOPs concept ?

3> what is polymorphism in java. ?

4> polymorphism complement inheritance ?

5> Type of polymorphism?

6> When we are overriding what thing we have to follow. ?

7>  overriding respect to access modifier ?

8>  overriding respect to exception handling ?

9> HashMap internal implementation ?

10> which call first .equals or hashcode ?

11> If we want to pass a Student Object into HashMap then what attribute we have to consider, write the code. ?

12> How do you write a Student ArrayList ?

13> What is the difference between HashMap and TreeMap?

14> HashMap maintains any order?

15> How many years of java8 experience?

16> Print 1000 student java 8 style ?

17> Purpose of forEach method ?

18> Do you know about LinkedList Data Structure? Write the code for LinkList data structure implementation ?

19> What is your favorite topic in java api ?

20> write your own map.entry implementation in java ?

21> What is bucket ?

22>  write your own bucket implementation ?

23> In respect of HasMap how bucket work ?

1> Brief introduction ?

1> Which collection framework do you work ?

2> do you have experience in kafka ?

3> Which design pattern do you work?

4> How to create a Singleton class of an Employee class using Singleton Design pattern?

5> we have an array 22113356677, what kind of approach do we have to find the unique element ? Which is the best approach where iteration is less ?

6> Is the HashMap key not duplicated ?

7>      T1 -> T2 , T5

T2 -> T4  
T3 -> NULL  
T4 -> T5  
T5 -> NULL  
T1 -> T2 , T5  
T2 -> T4  
T3 -> NULL  
T4 -> T5  
T5 -> T2

T1 ,T2,T3,T4,T5, are tasks and the arrow showing the dependency so what is your approach to solve the problem.

8>   T1 -> T2 , T5  
T2 -> T4  
T3 -> NULL  
T4 -> T5  
T5 -> NULL

In this use case what is the approach to solve the problem

9> ConcurrentHashMap ?

10> Do you have experience in Spring Core, Spring Aop, Spring Security?

11> What is bean Default scope ?

12> Default bean scope is Singleton but which use case or scenario we will not use it ?

13> Prototype vs Singleton bean Scope ?

14> Spring bean life cycle

15> ApplicationContext vs BeanFactory ? Which is best ?

16> Spring MVC is which kind of Design Pattern ?

17> What is the benefit of Spring MVC Design Pattern ?

18> Do you have experience in multithreading ? What is the approach to crate thread ?

19> Executor Framework you know ?

20> we have two thread T1 & T2, T1 print odd number and T2 print even number, so from 1 to 100 like to print but like to print 1 from T1 then 2 from T2 then 3 from T1 then 4 from T2 upto 100 so how you can do that ?

21> What is Microservices ? What is the monolithic vs microservices architecture ?

22> Disadvantage of Microservices ?

23> Do you have experience in Hibernate ?

24> Spring data JPA vs Hibernate ?

25> get vs load in hibernate ?

26> What is Proxy design pattern ?

27> what is a proxy object ?

28> There is a Student Object, that object contains id,name,age etc. in Database Student id is primary key so if I called getName() and if I called GetId() using load() then it hit the database or not, explain ?

29> What is cache ?

30> Advantage of cache ?

31> Do you have experience in Spring dependency injection ?

1> how passionate you are to work with java technology ?

2> Your introduction and background ?

3> In Java which you worked much ?

4> Are you strong in which topic in java ?

5> What is the collection framework all about ?

6> What is the main reason it is introduced in java ?

7> Whatever connection framework is doing that we can achieve by our own or by any third party tool, so any other specific reason why collection framework introduce with java.

8> What is Stack data structures all about ?

9> Implement Stack data structures ?

10> Before implementing what you are thinking ?

11> Java 8 experience ?

12> From a layman perspective how do you explain stream api ?

13> What is the main purpose of Stream api ?

14> Is the Stream api faster ? please explain ?

15> Is it mandatory to write lambda expressions with stream api ?

16> Explain iteration technique in Stream api ?

17> There are almost all things there in java so why those Lambda expressions , predicate, bipredicate, stream api are come as part of java 8 ?

18> Do you have Spring boot experience ?

19> Do you have microservice experience ?

20> What is microservice all about ?

21> How do we make one microservice implementation from scratch ?

22> How do we migrate one monolithic to microservices ?

23> Explain, try with resources, in which purpose we use it ?

24> Which java version does it come with ?

25> What is the purpose of introducing Optional class in java 8 ?

1> Your brief introduction ?

2> Do you work in a collection framework ?

3>  fail fast vs fail safe in java ?

4> Different between HashMap & ConcurrentHashMap ?

5> Concurrenthashmap how implemented ?

6> put vs putifabsent ?

7> Do you work in Exception ?

8> Exception structure from root class in java ?

9> How do we make custom exceptions ?

10 > If I want to make a runtime custom exception in java what do I have to do ?

11> Do you have framework experience ?

12> What is the difference between Spring & Spring Boot ?

13> Different between @Controller & @RestController ?

14> What is propagation in spring ?

15> Difference between @Component & @Service ?

16> can we replace @service with @component ?

17> Do you have Experience in Multithreading ?

18> What is callable ?

19> Callable vs Runnable ?

20> How do you rate yourself in database queries out of 5 ?

21> If we have two tables Employee & Department & those tables contain some information for showing UI what we have to do ?

22> If an Employee is not associated with a department then what have to do?

23> If we want to find Last Name first Name what have to do ?

24> If we use Hibernate then is there any method using that we can find Last Name & First Name of an Employee ?

25> In the case of Spring Data JPA   is there any method using which we can find Last Name & First Name of an Employee ?

26> How many years do you have Spring Boot & Microservice Experience ?

27> do you have any questions for me ?

Sudipta:

2> Your current project role & responsibility ?

3> What are you doing in your current project from a technical perspective ?

4> you are working with an agile methodology ?

5> Which java version do you have experience with ?

6> Which framework are you more comfortable with ?

7> Do you know unit testing ?

8> Do you have experience in junit & testNG ?

9> write down an employee class with field name id city & salary ?

10> How do we make a class immutable ?

11> Make Employee class as immutable class ?

12> Create a list of this employee object ?

13> write down a method and that method will accept employee list as parameter and will short the list based on

   name and if name is same then bess on id ?

14> write down unit test for the method written in requirement three ?

15> For customized sorting we are using comparator or comparable ?

16> What is a Comparator ?

17> Advantage of Comparator over Comparable ?

18> collections.sort ?

Sujit:

1)what is checked and unchecked exception?Give the name of exception you are getting mostly in your application.  
2)Can we handled the NullpointerException?  
3)Write the real time scenario where you have used the Optional class.  
4)What is the difference between exception translation and exception handling.In you application how you have handled Null pointer Exception?  
5)How exception are getting handled in your miceroservices application?  
6)what is GC and how you can explain that object created are unused?  
7)How you can create the user defined immutable class?  
8)Real time scenarion based on Dynamic Dispatch  
9)What is thread?Expalin the implementation of thread in your current application if it is getting used anywhere?  
10)Write a program to find the duplcate in a String.  
11)What is the difference between array and array list?  
12)How are you storing and fetching data from databae?  
13)Have you used the junit in you project?Explain in details.  
14)How you are reading the csv file in you application?  
15)What is static and final keywor.Some real time scenarion based question were asked.  
16)What is the advantage of using Maven in your project?  
17)Which tool ypu are using to build the application and how it works?  
18)What are stereo type annotation in spring boot application?  
19)What is @controllerAdvice annotation?  
20)What is difference between servlet and JSP?  
21)what is Request Dispatcher?  
22)What is Dispatcher Servlet?  
23)Overview of Spring MVC flow  
24)How many scopes are in Spring?  
25)Difference between Singlton and prototype scope?  
26)Difference between Request and Session Scope?  
27)What and all modules you are using in your spring boot with spring cloud microservices?  
28)How you are reading the properties in spring boot application?  
29)Usesages of Spring cloud confing and Sping Cloud bus?  
30)How you are testing and deploying your application in DEV,QA,UAT and PROD environment?  
31)Questions related to GIT and building tools which ever you have used?  
32)How you can migrate your whole application from Spring 4 to Spring 5?  
33)What are the difference between RestController and Controller?  
34)How the request are getting proccesed in Spring boot application?  
35)What is autowired?  
36)What changes did you realise when you have migrated the application from Spring Boot 1 to Spring Boot 2?  
37)What is reflection in java?  
38)Details about the feign eruka and loadbalancer  
39)Why feign is required?  
40)How Rest Api works?How many services you are having in you application and they are comminicating?  
41)Expalin the local nad global exception handling in the microservices application?  
42)What is the difference between contoller and Rest controller?

Pavan:

How Hash map internally works?

Explain OOP's concept’s (abstraction, inheritance, and polymorphism) with real-time project examples?

How spring will create Beans, how it will create internally?

Explain  ConcurrentHashMap?

How spring-boot application works internally?

How you are authenticating your application?

Once you login to the application by entering the username and password, how can other rest URL’s know it is already authenticated?

Duplicate key will allow in the hash map?

How Split() method works in string what is the return type?

How you are securing your password in your project?

Tell the flow of your project application

String input = "Welcome to the Java World";

String output = "World Java the to Welcome";

How data is saving internally in the Linked List Data Structure?

Pavan:

* 1. How we can create a Singleton class, write a Code?

* 1. What are the different design patterns you know?
  2. Difference between normal singleton class and spring created singleton class?
  3. Difference between array list and linked list?
  4. How many ways we can create a Thread and Write a code?

* 1. How can we implement the Immutable class write a code?
  2. How Hash Map internally Works?
  3. How can we will create HashMap and how can we add and retrieve. Write a code?
  4. public List<Integer> getEvenData(List<Integer> values){

a.       // write your code here

               Write a code to return only even numbers?

* 1. class  ImmutableTest{

        private  List<Integer> data;

         public ImmutableTest(List<Integer> data){

a.       this.data = data;

          }

 How can we make above class as a immutable class?

* 1. String s1 = new String("Hello");

        String s2 = "Hello";

        s1.equals(s2); // output

        s2 == s1 // output

* 1. How many objects will create

   String s1 = new String("Hello");

    String s2 = "Hello";

    String s3 = "Hello";

**Pavan:**

Explain Synchronous and Asynchronous communication in Microservices?

How Microservices communicate each other?

What are the design patterns you worked on?

What are 12 factors in Microservices?

New Features in spring boot?

How you rollback transaction in Microservices?

Write a program to reverse the Word "I Like Java Programming"?

Asked below programs outputs

public static void main (String {} args)

int a=4

int b=3

sum (a,b);

print a  and b;  // output of a and b

public int sum(int a, int b){

    a=10;

    b=4;

    return a +b;

}

--------------------------------------------------

public class Emp{

     public static void main(String []args){

        System.out.println("Hello World");

        Emp e = new Emp();

        e.set(Hari);

        display(e);//Output of e

     }

       public Employee display(Employee a){

       a.setName("Pavan")

       return a

    class Emp

    {

    String name;

    public String get(){

    return name;

    }

    public void set(){

[this.name](https://urldefense.proofpoint.com/v2/url?u=http-3A__this.name&d=DwMFaQ&c=jf_iaSHvJObTbx-siA1ZOg&r=IWr3X2N9kCZXrYy9lFOxU0MADdBi1AEbyVBwRxCvLLY&m=4sxYGb4Z1pYoQe2ZuWvhE_mbo0F1Ufj49hZMYn4U9oU&s=uo4mV_jQ2_SY-uXRbHIU2bp93waQHT2D3IN8T4LwenU&e=) = name;

    }

}

----------------------------------------------------

public class Emp

{

int age;

String name;

String adress;

int pincode;

}

public class Emp1

{

public String Display()

{

Emp e = new Emp(); //output : Default values assign to above 4 variables

}

}

What is the difference between internal Implementation in Hash map in java7 and Java8?

How to sort the array list in java 8?

String Reverse Program without using predefined methods?

What is Software-as–a-Service (SaaS)?

Write SQL Query for Second Highest Salary?

What is the use of Hystrix and fall back methods?

What is Zull gateway?

What is difference between cloud factory and kubernetes?

What is Docker?

How you check logs in?

How you will check pods and nodes are up in kubernetes?

How you deploy application in kubernetes?

How you check production logs?

Call by value and call by reference in java?

Difference between array list and linked list?

Which is faster array list or linked list?

Time complexity of linear search?

Time complexity of binary search?

What is a recursive function in Java?

How you are deploying the application jar or war?

How you implemented load balancing?

Divya Singh:

1) Write a program to find the second max element using a single for Loop. don't use built-in methods.

2) HashMap internal implementation and then few questions about the node, index, same key related to internal implementation.

3) Name collision is hashmap. This is related to the same key value.

4) How you will access the elements of Hashmap.

5) Oops concept. describe each one with examples.

6) When to use Interface and Abstract class.

7) Difference between interface and abstract class.

8) Whether abstract classes can have constructors.

9) Contract between Hashcode and Equals method.

Tapana Kumar Parida

* 1. What is Immutable class? How to create an Immutable class? (Scenario : we have one immutable class A inside the class we defined a mutable class object B. So class A will be fully immutable or not? If not then how to make it fully immutable?)

class ImmutableA{

public mutableClassB Obj;

}

* 1. What is Serialization? How to Serialize an object? (Scenario : we have one Serializable class A inside the class we defined a non serializable class object B. So class A will be fully Serializable or not? if not then who to make it fully Serializable?)

class SerializableA extends Serializable{

public nonSerializableB Obj;

}

* 1. Hibernate one-to-many mapping?
  2. What is Lazy loading?
  3. How to fix LazyInitializationException problem?
  4. Spring MVC architecture?
  5. Java 8, Lambda expression? (Why we use lambda expression?)
  6. Why we use Spring MVC?
  7. Wat is @Autowire? Why we use it?
  8. What is functional programming language?