**Java Questionaries**

1. Problem solving (Write a Programs)

Expectation: what is the approach

Don’t use inbuild function.

What is Time complexity

What is Space complexity

Any better solution for the problem.

* 1. Reverse the string or array of element.
  2. Merge two sorted arrays in to one array.
  3. Remove duplicate from an array.
  4. Sort elements in an array
  5. Find Max, second max and third max element in given array.
  6. Fibonacci series for given number.
  7. Find a loop in a linked list.
  8. Reverse the provided LinkedList like 1-2-3-4-null to 4-3-2-1-null.
  9. Find most occurrence element in the list.
  10. Threads to print both odd and even numbers from 1 to 20.

***And they may ask any other common problems also.***

1. Core Java

*Expectation: Interviewers want to know how much you understood the concept and when, why questions on each topic.*

* 1. What is stack and heap memory?
  2. What is String and why string is immutable and how many ways we can create strings?
  3. What is String constant pool and what purpose of it?
  4. How to create immutable class?
  5. What is StringBuffer and StringBuilder?
  6. Explain and create deadlock.
  7. What is thread safe and how to make program thread safe.
  8. Explain Garbage Collector?
  9. What is exception and how to write custom exception?
  10. Differentiate between ClassNotFoundException and NoClassDefFoundError in Java.
  11. What are data structures, Difference between Set and HashMap, what is ConcurrentHashMap and how it works internally?
  12. Difference b/w ArrayList and Linked List
  13. Difference b/w HashMap vs Hastable
  14. Why we need to override equal and hascode methods?
  15. What is abstraction and Interface. what are benefits of it.
  16. What association, composition aggregation
  17. What is fail fast and fail safe.
  18. What is Singleton class. How to create singleton class.
  19. What is serialization and deserialization?
  20. Java 8 features (Functional interfaces, Lambda Expression, Streams, Optional Class )
      1. Difference b/w for loop and stream API, when to use and cross questions, variable assignment inside Stream API clarification.
      2. Stream Filter based scenario questions.
      3. What is intermediate and terminal operation?
      4. What is the use of Optional class
      5. Difference b/w map and flatMap

1. Microservices, Restful webservices, spring, spring boot
   1. What is microservices and principles of Microservice?
   2. Microservice advantage and disadvantage
   3. What is restful web service and explain how to write restful web service.
   4. Annotation used in restful web service and explain purpose of it.
   5. Explain about statelessness.
   6. What is idempotent and non-idempotent methods in restful webservices (get,put and delete idempotent and post is non idempotent)
   7. In Microservices how do we handle a breakdown of service in any of the 2 microservice Service1, Service2 ?
   8. Application Gateway features and why we use it.
   9. Which one do you prefer? Spring or Spring Boot? Why?
   10. What is dependency injection?
2. Database
   1. Explain ACID properties.
   2. How to fetch data from two tables
   3. Explain joins
   4. What's the difference between Relational and nosql
3. Design
   1. Design approach for short URL/tiny URL service
   2. What is cache and why we use cache and how it works internally.
4. Production issues
   1. What steps to follow if production issue occurred.
   2. How to find performance issue and how to fix it.

***Note: Interviewer may ask other questions and scenarios-based questions as well. All the best for your interview***