**Visa account customer interview questions**

Usual interview pattern – First 5 minutes goes in introduction & theoretical questions. Then they ask the candidate to do some coding in front of them using Notepad / IDE / online Java compiler (intellisense is turned off, so the candidate has to remember the class / function names).

**CODING related questions:**

Design patterns / Collections / Data structure:

* Write code on Junit exception handling.
* Write code using only applying GOF patterns.
* Write a program for binary sort without using the two for loops and use single for loop to do the sorting, without using the java API. What is time complexity bubble sort and merge sort?
* Write a program to iterate though a LinkedList element using the node and not using an iterator. Node is the current position for LinkedList element, how can you use it for traversing from previous element to current element and current element to next element?
* Write a program showing binary search. What is the time complexity?
* Write a program to merge 2 list of strings.
* Write a program to remove duplicate strings from a list of strings (names) or numbers.
* String manipulation – Write a program to show the initials of the first name, keeping the last name full. Make the string reverse.
* what is the output of the program given below.

Class Test{

String s="Hello";

public static void modify(String str){

str +="Java";

}

public static void main(String str[]){

Test t=new Test();

t.s +="world";

modify(t.s);

System.out.println(t.s);

}

Core Java

* What are roman numbers? If someone gives roman number, how can you convert to whole number? Explain pseudo code / high level steps.

Spring Boot:

* When do you use JPA in spring boot? For example, you have 2 different DBs - Oracle and PostgreSQL. You have 2 tables in oracle, 1 table Postgre. You have to read 2 tables from oracle and merge them into Postgre DB? What is your application approach in spring boot and share your code approach.

**Theoretical Questions:**

Miscellaneous:

* Introduce yourself. Which projects, what technologies and what is your contribution to the project?
* What is your major experience? is it backend or frontend?

Springboot / Microservices:

* What is Spring batch reports generations? Did you use SQL queries for this?
* In Spring batch there are 3 procedures, have you used asynchronous reader in spring batch?
* What is the key component in spring boot?
* What difference does it make if you use spring boot and if you don’t use spring boot for app development?
* if you use spring boot version 3 or 3.5, how will you manage dependencies? Dependent compatibility in spring boot version? Can you specify any version?
* Have you heard about BOM?
* Have you used accuter?
* How do you connect to DB? If you want to configure 2 DBs, how do you configure in Spring boot?
* When you use JPA, you don’t directly connect with DB. How do you ensure that my entity belongs to oracle or my entity belongs to Postgre? How do you relate the tables in oracle / postgre?
* How does spring boot know that my entity belongs to oracle or postgre? What kind of configuraiton do you do for this?
* Do you have exposure to any nosql db?
* Assume you are using oracle DB. You have data in tables and you are planning to use pagination and display 10 rows per page. How do you fetch data per each page separately? Describe the approach for pagination.
* Have you use topend query?
* Any exposure JMS message queuing technology?
* Kubernetes - Are you involved in setting up cluster? Do you have exposure on docker?
* Which is latest JDK version you have used?
* Do you have exposure to spring security? can you explain?
* There are multiple authentication layers. You are building a spring boot application that is having rest exposure and also screens. Basic authentication at screens and Oauth authenticaion at REST. Can you implement these 2 authentications in spring boot application?
* In web application you have authenticated through user id and password, then you have to connect REST with Oauth. how do you implement this scenario? Your login page doesn’t come into oauth.
* Do you have experience in Talend?
* Are you involved in writing scripts in jenkins?
* How do you create a JPA entity?
* Where do you specify the JPA entity should be created?
* In config file when you connect to DB, do you specify dialet?
* When you specify a driver for Postgre and Oracle, you specify dialet for postgre and oracle. Why this is kind of design used? Why can’t you use single dialet for postgre and oracle?
* What design pattern you used?
* What is circuit breaker pattern?
* What is circuit breaker factory?
* What is advantage of circuit breaker pattern?
* Have you heard about executed framework?
* What are spring boot components?
* Have you used spring boot cli?
* Which security are you using?
* oauth and jwt token difference?
* Assue you are building a spring application, You have exposure to rest api,Is it possible to have spring boot to have different securities?
* What is DI in Spring & how it will work in spring?
* How are configuration done in spring bean.?

Core Java:

* Rate yourself on Core java (1 to 10)?
* Have you used Executor framework?
* What is the difference between hashtable and hashtable concurrent hashmap?
* Have you used design patterns? what are they? What is Single pattern & factory pattern?
* Do you have exposure on Linux commands?
* Do you have exposure on code coverage? What tool have you used? What dependency do you have to add form.xml?
* Which tool have you used to generate code coverage report?
* Have you heard about Javacode coverage(jacoco)?
* What is the latest JDK version? Which version have you used?
* What challenges did you face while migrating from Java 8 to 11?
* Do you have exposure on spring cloud? What services you used?
* Have you used spring batch?
* Which collection - hashmap or hashtable?
* Do you have Exposure to EC2?
* What is deep copy and cello copy?
* What is hashcode and equals method in java.?
* What is Abstract class and what is interface. where will use abstract class. & where will use the interface in project. Give the live real example. where you have implemented.
* What is difference between mutable and immutable string.

Microservices:

* What is the difference between PUT and PATCH? When to use which?
* Are you aware of fully restful webservices?
* How you configured your microservices?
* How many microservices are there in your application? How are you making communication?
* What is Choreography in Microservice?
* You have a topic with 4 partitions, how many instance you will created for you MS.
* What are different types of Kafka Acknowledgement?
* Have you setup your pipeline?
* How do you maintain your code?
* What is Singleton pattern?
* Explain security in your system.
* Which authentication mechanism you are using?
* How are you handling Hazelcast timeouts?
* What is difference between @RestController and Controller. If RestController is used, what is default format of response?