FYI – previous interview question bank

1. Explain JVM functionality how it works.
2. String vs String Buffer
3. Interface vs Abstract Class
4. Features of Java
5. Why Java is Dynamic
6. What are the components of HTTP?
7. Which all HTTP verbs are idempotent.
8. Method Override and Overloading.
9. SQL question basics how the  SELECT FROM and WHERE work internally.
10. IPC (Inter process Communication) vs Inter thread Communication.
11. Dynamic Polymorphism with example.
12. How do you test your code? What if there is a mismatch between the argument type?
13. How to take care of Exception handling in JAVA?
14. Explain Try/Catch and Finally.

**Second Round:**

1. Say you have an array for which the i-Th element is the price of a given stock on day i. If you were only permitted to complete at most one transaction (i.e., buy one and sell one share of the stock), design an algorithm to find the maximum profit.
2. On solving this, they further ask for two transactions and the approach.  
   **TIPS:** Prepare for the k transaction problem to handle any scenario.

add dependency in pom.xml in maven

1) different http methods you have used in rest

2)when you go for abstract and when you go for interface

3)difference between put and post

4)how you can convert your object in spring into json so that ui will take the response and display

5)404 error and 204 error code diff

6)error handling(error code and errors message)in Rest

7)qualifier annotation

8)database where clause,having and group by

9)ApplicationContext

10)difference between xml and json format about lightweight and heavy weight

programming question:

Say you have an array for which the ith element is the price of a given stock on day i.

If you were only permitted to complete at most one transaction (i.e., buy one and sell one share of the stock), design an algorithm to find the maximum profit.

How do you define rest controller in spring

Put and post method-

Abtsract class  or Interface

Run time polymorphism

Difference between API and webservice

Passing integer

5 uniques feature of Java – why it shall be used

Platform dependenct  or indepenet – Java /JVK

Why is Java considered dynamic

Core part of oop

String mute

Shadowing and overriding

Diff between polymorphism and encapsulation

Asynchronus and synchronous task

Inter process and intra thread communication ?

Why do we use interfaces in class

Interface is better or abstract is better

Example of abstraction and polymorphism

Interview - Complete 3 hours.

4 panel members including Mubarak.

2 programing rounds

2 tech rounds.

From what I understand, apart from Java and programming related, there were quite a few questions on Kafka or other stack as well.

Coding Question :



Input: S = "ADOBECODEBANC", T = "ABC"

Output: "BANC"

Find the largest SubString which having all the character of s2. Order does not matter.

1. Longest common prefix in array of string {flower,floor,flat}.

Ans: fl.

* How to make threads.
* How to create Thread Pool.
* Best practice to make efficient services.
* When does QueueFullException occure in Producer.
* How can we make availability for service reponse in Rest Services.
* Why are Replications Critical in Kafka.
* How can we balance the request processing of the spring boot application deployed on server.
* How can multiple application developed on different technology and platform can talk each other.
* NOSQL databases, mainly Neo4j and cassandra.
* Explain the scenario how did you use NOSQL in your project.
* Define Autowiring.
* How Topi, producer and consumer work in Kafka.

* Team Setup, How do you receive requirements, What is the process, Sprint Planning and Team communication.
* Ability to design and involvement in design discussions. Ability to influence technology selection in a tech solutions
* Production Issue – Process and Examples of solving production issues
* Test Driven Development
* What is the testing process, How do you test, What are the frameworks you use
* CICD Process, Maven,  Jenkins,
* Knowledge of cloud, How do you make a application cloud native.
* What are the new technologies learnt in the last six months, how did you learn
* Coding Question :
  1. Given a paragraph, identify unique works and number of occurrence of the word in that paragraph. Think about different scenarios, delimiter, parsing, alphanumeric, upper and lower case. What are the test cases you can think off while writing unit test case.
  2. Given a paragraph having many words, identify and each unique word and show how many time each word as occurred.

Example

Input : (Hello World Hello I am saying Hello I am world)

Output :

Hello 3

World 2

I 2

am 2

Saying 1

* 1. Given an array which is sorted..  (1,2,3,5,6,7)

Your Target Integer is 11

Find two numbers in the array that sum up to 11(target Integer).

Output : 5 and 6

* 1. //Generate a ul->li->ul... menu from a flat array  
       
     const menu = [  
      {id: 7, text: "Configuration", parent: 5},  
      {id: 1, text: "Introduction", parent: 0},  
      {id: 10, text: "Services", parent: 8},  
      {id: 3, text: "Chapter 2", parent: 1},  
      {id: 11, text: "Endpoints", parent: 8},  
      {id: 5, text: "Getting Started", parent: 0},  
      {id: 6, text: "Installation", parent: 5},  
      {id: 2, text: "Chapter 1", parent: 1},  
      {id: 9, text: "Core", parent: 8},  
      {id: 8, text: "API", parent: 5},  
      {id: 12, text: "About", parent: 0},  
      {id: 4, text: "Chapter 3", parent: 1},  
     ]

I was given the array that represents HTML structure that I have to create just using this object.

The when parent value is 0 that means that elements is on the top.  This problem should be solved in javascript, because it has

DOM manipulation or one can use query for this.

1. Technical React and JavaScript questions
2. How do you influence your team members while discussing and explaining the solutions.

**Leadership Questions – Very Important. Will need scenarios and examples for each and every response.**

·         New Technology you learn.. how did you learn.. how fast did you learn.. ?

·         When did  u design ?

·         How do you learn newer things quickly ? How much time you might need to be productive at work with  new technology ?

·         Something that failed in your design ?

·         Agile as a process ? Planning ? Grooming ? Estimation ?

·         What is cloud

·         When working with a team.. how do u go about influencing the team..

·         In you dev process.. what would you change ? if u want to change anything.. what would you change ?

·         What is your experience with Java spring react redux webpack sql kafka cassandra hadoop rest services with spring...

·         What is a cloud service.

·         What is the difference between a application on cloud and on native

·         How do you know your cloud service is working good..

·         NOSQL.. difference between NOSQL and RDBMS

·         CICD.. What does it mean.. ? What is your experience..? What are the tools

·         How have u tested your Java code.. Angular code ? What are the frameworks u have used

·         How have u mocked data ? How ? What are the frameworks…

·         Decision making.. Examples. Success and failures ? What did you learn from failures.. ?

·         Role

·         What Full Stack means to u...

·         What services have you built ?

·         What are most two critical challenges(something like a code break, something bad happened).. explain what happened and what did you do...

·         What kind of design have u done in projects.. What was ur contribution..

·         Have u ever had a bug in production.. How did u determine the problem and how did u fix it...

·         When you get a business requirement, how do you go about it ? What is the approach ? What all you think of ?

·         Describe a recent problem... that u felt was extremely challenging... and how you fixed..

·         How did you deal with new technology. And how did you manage to learn it..

·         When you had to deal with ambiguous..complex situation... conflict situation and how you solved..

·         Your current tech skills. And what are you doing to become an expert in that technology..

·         Where were you using RX JS ?

·         how familiar with JavaScript functions.. like map etc.. Out of the box functions..

·         Have u developed customer directives ?

**Tech Questions – Not all questions will be covered. May be 30% will be asked at least.**

·         WHAT WOULD BE YOUR FAVOURITE (BACKEND OR FRONT END) AND WHY ? WHAT INRESTING IN YOUR CHOICE ?

·         WHAT ARE THE TECHNOLOGIES YOU HAVE BEEN USING WHILE BUILDING JAVA WEB SERVICES

·         WHAT WERE THE SPECIFICATION ON THOSE WEB SERVICES..

·         WHAT IS THE SPECIFICATION OF REST SERVICES TODAY ?

·         HOW DID YOU GUYS ACCESS THOSE DATABASES..

·         WHAT ARE SOME OF THE ADVANTAGES OF USING A SPRING FRAMEWORK..

·         WHAT WOULD BE A DISADVANTAGE OF USING SPRINGBOOT

·         WHY IS DEPENDENCY INJECTION IMPORTANT ?

·         HOW DO YOU KNOW ITS THREADSAFE APPLICATION OR NOT ? SINGLETON..

·         BUILDING THREAD-SAFE APPLICATON..

·         WHAT ARE SOME OF THE DESIGN PATTERN YOU HAVE WORKED..? EXPLAIN EACH ON OF THEM... AND WHERE HAVE YOU USED EACH ONE.. ?

·         AT A HIGH LEVEL, WHY SHOULD I USE A SPRING FRAMEWORK. WHAT WOULD IT SOLVE.. WHY IS THAT SO IMPORTANT

·         HOW DOES SPRING FRAMEWORK HELP YOU WITH UNIT TESTING

·         HOW WOULD YOU INJECT A BEAN

·         WHAT IS THE SCOPE OF THE BEAN BY DEFAULT

·         WHY WOULD THAT BE A SINGLETON.. WHY WOULD SPRING DECIDE IT TO BE A SINGLETON..

·         WHAT ARE THE OTHER SCOPES OF BEAN

·         WHY WOULD I USE A DOCKER.. HOW IS IT DIFFERENT FROM A VIRTUALIZED ENVIRONMENT..

·         DOCKER IMAGES..

·         WHY WOULD I USE A NOSQL DATABASE..

·         WHAT IS CONNECTION POOLING(INTERACTION BETWEEN DATABASE AND WEB APPLICATION)..

·         HTTPS CONNECTIONS..HOW WOULD I MAKE ANY REST SERVICE AS A HTTPS CONNECTION..

·         HOW WOULD YOU DESCRIBE THE CLOUD..WHAT ARE THE ARCHITECTURAL LAYER IN A CLOUD..

·         WHAT IS AN ORCHESTRATOR AND WHY IS IT IMPORTANT TO CLOUD...

·         WHAT ARE SOME OF THE SERVICES THAT AWS OFFERS..

·         SQL AND NOSQL(CASANDRA)

·         WHAT WAS THE TEAM SIZE AND WHAT WAS THE PROCESS..

·         HAVE YOU EVER WORKED WITH ANYONE WHO DIDNT ACCEPT YOUR SOLUTION..

·         HOW DO YOU INFLUENCE PEOPLE TO WORK BETTER WITH YOU ?

·         3 TO 4 QUESTIONS ON DOCKER IMAGES ???

·         DESCRIBE THE MAJOR ARCHITECTURAL LAYERS OF CLOUD.. ?

·         DNS ? DOMAIN NAME SERVICES ?

·         HAVE YOU EVER DONE API DESIGN..

·         WHAT MAKES A GOOD REST SERVICES DESIGN..

·         WHAT ARE SOME OF THE CHALLENGES YOU ARE FACING IN CLOUD ? SPECIFIC AND WHAT ARE SOME GENERAL INDUSTRY LEVEL CHALLENGES..

·         WHAT IS CODE COVERAGE AND HOW DO YOU MEASURE IT.. ?

·         WHAT MOTIVATES YOU...

·         What is a tombstone in NOSQL database.. ?

·         Testing - Frame works

·         How of UX interactions ? Design ?

·         CI CD with front end and backend together ?

·         Experience with Dev Ops ?

·         Cloud ?

·         Troubleshooting techniques.. ? Approach ?

·         Volume of Data you have handled ?

·         Wireframe? What if there is no UX designer ?

·         Complex story that you have done in the past.. how did you develop design and how did you about it..

·         Redux : Get and Fetch(front end React part)

·         Serialization means..

·         True String ?

·         Databases: Index(what it is...)

·         What is Spring Repository...

·         new functions in Java 8

·         Give me a case where you have used Lambda Expression...

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·         What is your recent project?

·         What the functionality you design in your project?

·         What the biggest challenge in your project?

·         How to follow the Agile workflow?

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·         Database:

·         What is index in database?

·         What the different between NO relation DB and relational DB?

·         Spring:

·         What is the relationship is between Dao layer and Spring Repository?

·         Core Java:

·         How to use Serializable interface?

·         React:

·         Redux workflow?

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·         Test Strategy(Following are primarily for Testing/SDET candidates)

·         How do you about test strategy

·         How do you manage all this test scripts

·         Validating data Scenarios...coming from different systems, servers, databases..

·         What are the matrix you would like.. What are the different things outside the requirements you would check... you have the service for that..

·         test that services.. what are the different scenarios that you would check..

·         what all negative cases you would check ?

·         Non Functional requirement..

·         Shell Scripts ?

·         What type of scripts.. ?

·         Isolation Level in Database..

·         Have you written any query that locks the database anytime ?

·         Performance Testing

·         Agile methodology..

·         What makes a service RESTFUL

·         Swagger.. how did you use Swagger ? Swagger config class..

What is your CI process...