Java Backend Engineer: Interview Questions Collection

Project Related

1. Self-introduction
2. Project introduction
3. Project volume
4. Thread and concurrency knowledge points
5. Differences between lock and synchronized lock
6. Differences between MYSQL and MONGODB
7. Which components and versions of SpringCloud are used

Spring Ecosystem

1. What is the core of SpringBoot
2. SpringBoot version
3. Which SpringCloud components are used
4. Differences between SpringBoot and SpringCloud
5. Spring bean injection methods
6. Bean naming conventions for multiple datasource configuration

Microservice Architecture

1. How to split microservice modules
2. In coupling, which takes priority: business coupling or technical coupling
3. What microservices pattern is used
4. Differences between stateless and stateful in API design, how to choose
5. Default number of nodes for cloud deployment

Java Related

1. JDK version in use
2. Stream underlying implementation
3. How to debug Stream code issues
4. Stream components and underlying structure
5. How to implement message sharing between threads
6. What is a reentrant lock
7. Explain your understanding of locks
8. Differences between JDK8 and JDK17

Server Configuration

1. Default thread count in Tomcat
2. How to migrate from Tomcat to other web servers
3. Nginx reverse proxy configuration

Database and Cache

1. How to create Redis connection in project, required dependencies
2. How to create connection using Jedis
3. Redis transaction commands
4. SQL scenario: Join query between department and employee tables for highest salary by department
5. Advantages of left join

Programming Scenarios

1. Implement Person object sorting by age and name using Java8 API
2. Output common characters between two strings

CI/CD

1. Dockerfile writing experience
2. Groovy closure features in Jenkins pipeline
3. Purpose of Nexus tool
4. DevOps practical experience

Core Concepts

1. Java Memory Model (JMM) concepts and functions
2. HashMap implementation principles and conflict resolution
3. Proxy pattern implementation (static and dynamic)
4. IoC and AOP principles
5. Why Redis maintains high performance with single thread
6. Executor thread pool parameter configuration

Indian Interviewer Focus

1. Java basic concepts (with examples)
2. Usage of polymorphism
3. LinkedList performance and differences

4. Differences between Maps
5. Array handling solutions
6. Linux commands
7. Project experience (tech stack: python, angular, control-M)
8. English proficiency

English Fluency Levels

1. Can’ t express oneself - Poor foundation, unable to give self-introduction or project presentation
2. Basic/simple conversation - Basic foundation, can deliver prepared self-introduction
3. Daily communication - Good foundation, can participate in English meetings and understand most content
4. Workable - Strong foundation, can communicate fluently with interviewer
5. Workable & tech exchange - Excellent proficiency, can engage in barrier-free technical discussions

Other Interview Assessment Points

1. Learning methods
2. Technical communication ability
3. Client communication experience
4. Project challenges and solutions
5. Career development plan
6. Technical depth (multi-threading, data validation, frontend development, etc.)