

Interview Framework – Java Developer

Role

Java Developer

Interview Instructions

This document contains structured interview questions for the Java Developer role.

Questions are designed to assess:

- Core Java knowledge
- Object-oriented programming principles
- Problem-solving ability
- Understanding of backend architecture basics
- Familiarity with modern development practices

The interviewer must:

- Ask one question at a time.
- Allow the candidate to answer fully before moving on.
- Not reveal scoring criteria.

Question 1 – Core Java Basics

Explain the difference between `==` and `.equals()` in Java. When would you use each?

Question 2 – OOP Principles

Can you describe the four main principles of Object-Oriented Programming and provide a short example of one in Java?

Question 3 – Collections Framework

What is the difference between a `List`, `Set`, and `Map` in Java? When would you use each?

Question 4 – Exception Handling

What is the difference between checked and unchecked exceptions? Give an example of each.

Question 5 – Multithreading

What is a thread in Java? What are two ways to create a thread?

Question 6 – Spring Boot Basics

What is Spring Boot and why is it commonly used in backend development?

Question 7 – REST APIs

What is a RESTful API? What are the main HTTP methods used in REST?

Question 8 – Dependency Injection

What is dependency injection and why is it useful?

Question 9 – Database Interaction

How does Java typically interact with a relational database? Name one framework used for this.

Question 10 – Problem Solving

Describe a challenging bug you encountered in a project. How did you identify and fix it?

End of Interview

After Question 10, the interview session is complete.