Senior Java Developer interview questions

This Senior Java Developer interview profile brings together a snapshot of what to look for in candidates with a balanced sample of suitable interview questions.

In some respects even the most technical role demands qualities common to strong candidates for all positions: the willingness to learn; qualified skills; passion for the job.

Even college performance, while it helps you to assess formal education, doesn’t give a complete picture. This is not to underplay the importance of a solid background in computer science. Some things to look for:

- Understanding of basic algorithmic concepts
- Discuss basic algorithms, how would they find/think/sort
- Can they show a wider understanding of databases
- Do they have an approach to modelling?

Do they stay up to date with the latest developments? If so, how? Probe for their favourite technical books. Who are they following on Twitter, which blogs do they turn to?

Are they active on Github? Do they contribute to any open source software projects? Or take part in Hackathons. In short, how strong is their intellectual interest in their chosen field? How is this demonstrated? Ask for side projects (like game development). Committed, inquisitive candidates will stand out.

Computing Science Questions

- What does a Just in Time compiler have to offer? Do you know of any programming language runtimes that use one?
- How is preemptive threading model different from the cooperative threading model?
- What tools & practices would you consider necessary for a Continuous Delivery solution?
- How is a code point related to a code unit in Unicode?
- What do you think makes a unit test good? What about functional ones?

Role Specific Questions

- Do arguments in Java get passed by reference or by value?
- Why would it be pointless for a static or final method to use dynamic binding?
- How is Java SE related to Java EE?
- How are Runtime exceptions different from Checked exceptions?
- What are the most important features introduced in Java 5, 7 and 8 respectively?
- Is ForkJoinPool introduced in Java 7 always a better alternative to ThreadPoolExecutor?
• What is the difference between HashMap, ConcurrentHashMap and Map returned by Collections.synchronizedMap
• You want to synchronize 5 threads to start at the same time. Describe a solution.
• What is a weak reference and how could it be useful to us?
• Choose a Java EE platform API and give a short description of it.
• In a 3-tier application running a Java application server you notice freezes for several seconds during high load. What are the most likely reasons? How would you troubleshoot them?
• Servlets 3.0 introduced async support. Describe a use case for it.
• Why do you think lambda expressions are considered such a big thing for Java 8?
• What do you know about the Java Scripting API? Can you think of a use case?
• Is this possible in Java?
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