Your Technical Experience

* Describe the technical design of your current application, which specifically, talk about
* Concurrency and scalability
* Distributed algorithms
* Interactions (cooperation and competition) between various processes and threads
* Bottlenecks
* Any designed-in resilience / redundancy

Candidate should be comfortable sketching the high-level architecture on paper or a whiteboard, and talking you through it and be able to where the concurrency is, how it scales, and where the bottlenecks are.

* How would you scale it for 100x throughput?

This is a hard question and it is reasonable to come up with several ideas that don't stand up once you drill into them. The candidate should be guided to thinking of all options including changes to current constraints they work under, e.g. changing the upstream or downstream interfaces, changing the platform, changing the latency requirements etc. We are looking for the ability to generate ideas, the ability to work through problems, drill into detail, think on their feet, etc. We are also looking for a broad understanding of multiple technologies; enterprise patterns, etc., and evidence of a strong mental model of the performance characteristics of their system.

* What development process do you follow and why?
  + Have you ever done scrum/agile before? Are you familiar with it? Can you explain the benefits?
  + What design patterns have you used before? Can you explain one to me?
  + How do you ensure the code you develop is up to standard?
  + What does refactoring mean to you? Why is it important?
  + Describe the design of the current system you are working on. Use whiteboard if possible. (Test of communication skills)
  + Can you explain Inversion of Control/Dependency Injection?
  + What different types of tests have you written/used? When would you use each? / What is the difference between them?
  + Have you supported any of the applications you have developed?
  + How would you go about performance tuning an application?
  + How do you stay up to date on the latest technologies?
  + Describe the architecture of your most recent project, describing key technical decisions and approaches that were used.
  + On day one at your new job, you new manager assigns you a task to implement some new functionality within a business critical application. Upon investigation, you find that in order to create this new functionality significant refactoring of existing functionality is going to be required. Explain your approach.
  + How do you keep up with programming / java / technology? Follow up question: what is new in Java 8?
  + How do you stay up to date on the latest technologies?
  + What do you understand by TDD? Benefits? Problems? Follow up: Benefits, problems of using mocks in tests.
  + Describe a branching/tagging system for managing releases. How do you support prod patches?
* What sort of role are you looking for?
  + Why do you want to move?
  + What is your notice period?
  + How do you learn?
  + How do you prefer to work? (Are you good at cooperative development or do you prefer to work alone?)
  + How much production support have you done and how did you approach this?
  + Describe a challenging situation and how you resolved it.
  + Current role
    - Describe role on the project
    - Describe the product/project.
  + If you were in charge of a small Java team, how would you set it up? E.g. what development process? What tools? What practices?
  + Tell us about a project you really enjoyed.
  + Have you supported any of the applications you have developed?