

41 Redis interview questions to assess your candidates

Questions

1. Can you explain what Redis is and some of its key features?
2. How does Redis handle data persistence?
3. What are the main differences between Redis and traditional relational databases?
4. How do you connect to a Redis database using your preferred programming language?
5. What are some common use cases for Redis in modern applications?
6. Can you explain the concept of Redis data types and give examples?
7. How would you implement caching in a web application using Redis?
8. What are the benefits of using Redis over other caching solutions?
9. How does Redis handle replication and failover?
10. Can you discuss some common Redis commands and their uses?
11. Can you explain the concept of Redis pub/sub and give an example of when you might use it?
12. How would you go about implementing a simple rate limiter using Redis?
13. What are Redis transactions? How do they differ from traditional database transactions?
14. Explain the concept of Redis pipelining and when you might use it.
15. What is the purpose of Redis Sentinel, and how does it work?
16. How would you implement a leaderboard system using Redis?
17. What are Redis Lua scripts, and why might you use them?
18. How would you approach data migration or schema changes in a Redis-based application?
19. How would you implement a real-time analytics dashboard using Redis data structures?
20. Explain how you'd use Redis Sorted Sets to create a time-based event log.
21. Describe a scenario where you'd choose Redis Hashes over Strings, and why.
22. How can Redis Lists be used to implement a simple job queue?
23. Explain the concept of Redis HyperLogLog and a use case for it.
24. How would you use Redis Sets to efficiently manage user sessions?
25. Describe how you'd implement a basic autocomplete feature using Redis data structures.
26. Explain the advantages of using Redis Bitmaps for certain types of data.
27. How can Redis Streams be used for real-time data processing?
28. Describe a situation where you'd use Redis Geospatial indexes.
29. How would you implement a distributed lock using Redis?
30. Explain how Redis Cluster sharding works with different data structures.
31. How would you go about identifying and resolving Redis performance bottlenecks?
32. Can you explain the concept of Redis pipelining and when you might use it to improve performance?
33. How does Redis handle memory management, and what strategies would you employ to optimize memory usage?
34. What are some best practices for designing efficient Redis keys, and how do they impact performance?
35. How would you implement and optimize a Redis-based caching layer for a high-traffic web application?
36. Imagine you have a Redis instance that's suddenly experiencing high latency. How would you troubleshoot this issue?
37. How would you handle a scenario where you need to scale Redis horizontally?
38. Suppose you need to implement a high-availability Redis setup. What would be your approach?
39. Imagine you need to migrate data from one Redis instance to another with minimal downtime. How would you achieve this?
40. You need to reduce the memory usage of your Redis instance. What strategies would you employ?