

61 REST API interview questions to ask developers of all levels

Questions

1. What is a REST API and why is it important?
2. Can you explain the difference between PUT and POST methods in REST API?
3. What are the key components of a RESTful web service?
4. What is statelessness in REST APIs and why is it important?
5. How do you handle errors in a RESTful web service?
6. Can you explain the concept of resource representation in REST?
7. What is HATEOAS, and why is it significant in RESTful APIs?
8. Describe the role of HTTP headers in RESTful web services.
9. What are some common security considerations for REST APIs?
10. How do you version a REST API, and why is it necessary?
11. Can you explain the concept of idempotency in REST APIs?
12. How would you design a RESTful API endpoint for creating a new user account?
13. What's the difference between authentication and authorization in REST APIs?
14. How do you handle pagination in a RESTful API?
15. Can you describe the purpose of the OPTIONS HTTP method in REST?
16. What are the benefits of using JSON Web Tokens (JWT) in REST APIs?
17. How would you implement rate limiting in a REST API?
18. Can you explain what CORS is and why it's important for REST APIs?
19. What's the significance of the Accept and Content-Type headers in REST API requests?
20. How would you design a RESTful API endpoint for updating a user's profile information?
21. Can you describe the difference between synchronous and asynchronous API calls?
22. What are some best practices for naming REST API endpoints?
23. How would you handle file uploads in a RESTful API?
24. Can you explain the concept of idempotency in REST APIs?
25. What's the purpose of using status codes in REST API responses?
26. How would you implement search functionality in a RESTful API?
27. Can you describe the difference between REST and GraphQL?
28. What are some common tools or libraries you've used for testing REST APIs?
29. How would you handle long-running operations in a RESTful API?
30. Can you explain the concept of API throttling and when it's useful?
31. How would you handle caching in a REST API to improve performance?
32. Can you explain the concept of hypermedia-driven REST APIs?
33. How would you implement API versioning, and what are the trade-offs of different approaches?
34. Explain the concept of idempotency in REST APIs and why it's important.
35. How would you design a RESTful API for a social media platform's newsfeed feature?
36. What are the key considerations when designing a RESTful API for mobile applications?
37. How would you implement rate limiting in a REST API, and why is it important?
38. Explain the concept of content negotiation in REST APIs and how it's implemented.
39. How would you design a RESTful API to handle long-running operations?
40. What are the best practices for error handling and communicating errors in REST APIs?
41. How would you ensure backward compatibility when making changes to an existing REST API?
42. Can you explain how you would implement OAuth 2.0 in a REST API and why it's used?
43. What strategies do you use to document REST APIs effectively for other developers?
44. How do you approach the design of a RESTful API to support multiple client types, such as web and mobile?
45. Can you discuss the trade-offs between REST and other API architectural styles, like gRPC or SOAP?
46. How do you handle API deprecation, and what communication strategies do you use to inform your users?
47. What are some techniques you can implement to enhance the performance of a REST API?
48. Can you explain how you would implement a search filter in a RESTful service?
49. What is the role of API gateways in a microservices architecture, particularly for REST APIs?
50. How would you manage database transactions in a RESTful API to ensure data integrity?
51. Can you explain what URI templating is in the context of REST APIs?
52. What is the difference between URI and URL in the context of REST APIs?
53. Can you explain the concept of idempotency in REST APIs and provide an example?
54. What is content negotiation in REST APIs and why is it important?
55. Explain the concept of resource expansion in REST APIs.
56. What is the difference between statelessness and statefulness in the context of REST APIs?
57. How would you handle a scenario where a REST API needs to process a large amount of data that takes several minutes to complete?
58. Can you explain how you would implement rate limiting in a REST API?