

Java Spring Boot Interview Questions

1. Explain the core concepts of Spring Boot.
2. What is dependency injection, and how does Spring Boot implement it?
3. Describe the use of Spring Boot annotations like `@RestController`, `@Service`, and `@Repository`.
4. How does Spring Boot differ from the traditional Spring Framework?
5. What is the Spring Boot starter? Give examples of some commonly used starters.
6. Explain how to create a Spring Boot application from scratch.
7. What are Spring Boot's auto-configuration capabilities?
8. How does Spring Boot handle database connections? Explain with examples.
9. What is Spring Boot Actuator, and why is it useful?
10. How do you use properties in Spring Boot?
11. Explain the use of profiles in Spring Boot.
12. Describe the role of Spring Boot CLI and its use cases.
13. How does Spring Boot handle logging?
14. What are the different ways to package and deploy a Spring Boot application?
15. Explain the concept of embedded servers in Spring Boot and its advantages.
16. What is Spring Data JPA, and how does it integrate with Spring Boot?
17. How do you implement exception handling in Spring Boot?

18. Explain the purpose of the `@SpringBootApplication` annotation.
19. How does Spring Boot handle security?
20. Describe the role of caching in Spring Boot and how it can be implemented.
21. What is the Spring Boot DevTools, and how does it improve development?
22. How can you externalize configuration in Spring Boot?
23. Explain how you would configure and use a REST API in Spring Boot.
24. How can you test Spring Boot applications effectively?
25. What is the purpose of Spring Boot's Application Runner and CommandLine Runner?
26. How would you implement a scheduled task in Spring Boot?
27. Explain the Spring Boot starter dependencies for MongoDB and their configuration.
28. How does Spring Boot integrate with messaging systems (e.g., Kafka, RabbitMQ)?
29. Describe how Spring Boot handles asynchronous processing.
30. Explain how Spring Boot supports microservices architecture.
31. How can you secure a Spring Boot application with JWT (JSON Web Token)?
32. What are the benefits of using Spring Cloud with Spring Boot for microservices?
33. How do you implement file uploads and downloads in Spring Boot?
34. Describe the process of creating a custom starter in Spring Boot.
35. How do you enable HTTPS in a Spring Boot application?

36. What is the difference between CrudRepository and JpaRepository in Spring Data JPA?
37. Explain how to use Feign clients in Spring Boot for REST communication.
38. How can you achieve load balancing in a Spring Boot application?
39. Describe how you can configure multiple data sources in Spring Boot.
40. How do you optimize a Spring Boot application for production?