Interview Q&A - Netflix AI Chatbot Technologies

Spring Boot

1. What is Spring Boot and how does it simplify Java development?

2. What are the main features of Spring Boot?

3. What is the difference between @Component, @Service, and @Repository?

4. Explain dependency injection in Spring Boot.

5. What is a Spring Boot starter?

6. How does Spring Boot auto-configuration work?

7. What is the role of @SpringBootApplication annotation?

8. How can you configure CORS in Spring Boot?

9. What is the purpose of application.properties?

10. How do you connect Spring Boot with MongoDB?

11. Explain REST API development in Spring Boot.

12. What is a Bean in Spring Boot?

13. What is the difference between @Controller and @RestController?

14. How does exception handling work in Spring Boot?

15. What is Spring Data JPA and how is it used?

16. What are Profiles in Spring Boot?

17. Explain how Spring Security integrates with Spring Boot.

18. What is a Filter and how is it used in Spring Boot?

19. What is @Autowired and how does it work?

20. How do you test APIs in Spring Boot?

21. What is the purpose of CommandLineRunner?

22. Explain Actuator in Spring Boot.

23. How to schedule tasks in Spring Boot?

24. What is the default embedded server in Spring Boot?

25. How to secure REST APIs in Spring Boot?

26. What are microservices in the context of Spring Boot?

27. How do you handle transactions in Spring Boot?

28. What are the common annotations used in Spring Boot?

29. What is the difference between Spring MVC and Spring Boot?

30. How would you deploy a Spring Boot app to production?

React.js

1. What is React.js and why is it popular?

2. What is JSX?

3. Explain the concept of Virtual DOM.

4. What are React components?

5. What are functional and class components?

6. What are props and state?

7. Explain the useEffect hook.

8. What is useState hook used for?

9. What is React Router DOM?

10. How to handle forms in React?

11. What is conditional rendering in React?

12. What are controlled and uncontrolled components?

13. What is the purpose of useRef hook?

14. How does React handle events?

15. What is the difference between stateful and stateless components?

16. What is context API in React?

17. What are React fragments?

18. How do you optimize performance in React?

19. What are higher-order components (HOC)?

20. What is React.memo()?

21. What is reconciliation in React?

22. What are React keys and why are they important?

23. What is Redux and when would you use it?

24. How does routing work in React Router v6?

25. What is lazy loading in React?

26. How do you make API calls in React?

27. What is the difference between useEffect and useLayoutEffect?

28. What is the role of Axios in React?

29. What is the difference between props drilling and context API?

30. How to handle authentication in React apps?

JWT (JSON Web Token)

1. What is JWT?

2. What are the three parts of a JWT?

3. What is the difference between JWT and session-based authentication?

4. How is JWT structured?

5. What is the purpose of the signature in JWT?

6. How do you generate a JWT token in Spring Boot?

7. How can JWT be validated?

8. What are the advantages of using JWT?

9. What are the risks of JWT if not implemented correctly?

10. What is the difference between access token and refresh token?

11. How to secure JWT tokens in frontend apps?

12. Can JWT tokens be revoked?

13. How do you set JWT expiry time?

14. How does JWT ensure data integrity?

15. What is a claim in JWT?

16. What libraries can generate JWT in Java?

17. How to extract user details from JWT?

18. What is HS256 vs RS256 algorithm in JWT?

19. What happens when JWT expires?

20. How to handle JWT in REST APIs?

21. How to send JWT token from frontend to backend?

22. How to implement JWTFilter in Spring Boot?

23. What is the difference between JWT and OAuth2?

24. Why should JWT be stored in HTTP-only cookies?

25. What is the role of secret key in JWT?

26. How to decode JWT manually?

27. What is JWT middleware?

28. How do you refresh JWT tokens securely?

29. What are stateless APIs in context of JWT?

30. What is audience and issuer in JWT?

Java Core

1. What are the main features of Java?

2. What is JVM, JDK, and JRE?

3. Explain OOP principles in Java.

4. What is inheritance in Java?

5. What is polymorphism in Java?

6. What is encapsulation?

7. What is abstraction in Java?

8. What are access modifiers in Java?

9. Difference between abstract class and interface.

10. What is a constructor?

11. What is method overloading and overriding?

12. What is static keyword used for?

13. Difference between ArrayList and LinkedList.

14. What is HashMap in Java?

15. What are exceptions in Java?

16. Difference between checked and unchecked exceptions.

17. What is try-catch-finally block?

18. Explain multithreading in Java.

19. What is synchronization?

20. What are streams in Java 8?

21. What are lambda expressions?

22. What is functional interface?

23. What is the use of Optional in Java?

24. What is garbage collection in Java?

25. What is the difference between String, StringBuilder, StringBuffer?

26. What is immutable class?

27. How does HashMap handle collisions?

28. What is the difference between equals() and ==?

29. What are generics in Java?

30. What are annotations in Java?

MongoDB

1. What is MongoDB?

2. What is the difference between MongoDB and MySQL?

3. What is a document in MongoDB?

4. What is a collection in MongoDB?

5. What are the advantages of MongoDB?

6. What is BSON in MongoDB?

7. What is the default port for MongoDB?

8. What is the _id field in MongoDB?

9. How to insert data in MongoDB?

10. How to query documents in MongoDB?

11. What is aggregation in MongoDB?

12. What is indexing in MongoDB?

13. How to update a document in MongoDB?

14. What is sharding in MongoDB?

15. What is replication in MongoDB?

16. How to connect MongoDB with Spring Boot?

17. What is findOne() method used for?

18. What is ObjectId in MongoDB?

19. What is schema-less design?

20. How to delete a document in MongoDB?

21. What is Compass in MongoDB?

22. What is MongoTemplate in Spring Boot?

23. What is $match in aggregation pipeline?

24. What is $group in MongoDB?

25. What are capped collections?

26. What is the difference between insert() and save()?

27. What is TTL index?

28. What are embedded documents?

29. What is GridFS in MongoDB?

30. What are transactions in MongoDB?

Llama (Ollama)

1. What is Llama 3?

2. Who developed Llama?

3. What is Ollama used for?

4. How to install Ollama locally?

5. What port does Ollama run on?

6. How does Ollama communicate with applications?

7. What is a prompt in LLM context?

8. How to pull models in Ollama?

9. What is the difference between Llama 2 and Llama 3?

10. What are the hardware requirements for Llama 3?

11. How to run a model using Ollama CLI?

12. What is a tokenizer in LLMs?

13. How is context length related to performance?

14. What is the base model in Ollama configuration?

15. How does Llama 3 generate text?

16. What is fine-tuning in LLMs?

17. How to integrate Ollama with Spring Boot?

18. What is Spring AI?

19. What is ChatClient in Spring AI?

20. How to change models dynamically in Ollama?

21. What are embeddings in AI?

22. How to handle large model memory issues?

23. What is quantization in LLMs?

24. What are tokens in AI context?

25. How does Ollama handle concurrent requests?

26. What are system prompts in Ollama?

27. What is temperature parameter used for?

28. How to check available models in Ollama?

29. How to use Ollama with APIs?

30. What are the ethical considerations with local AI models?