**Microservices & Docker:**

1. What is Monolithic Architecture?
2. What is SOA Architecture?
3. What is Microservice Architecture?
4. What are the uses cases where REST services being used?
5. What are the best practices to implement REST services?
6. How to implement Global Exception Handling in REST services?
7. How to perform input validation on input data in REST services, provide the steps?
8. How to perform Auditing, provide the steps?
9. How to document the REST API, provide the some of the annotations from open API?
10. What are the different annotations and classes used in the REST?
11. How to right size and identify service boundaries for microservices, Explain with examples?
12. How to handle deployment, portability and scalability of microservices?
13. Why should we containerize microservices?
14. How can we containerize application?
15. Difference between containers and virtual machines?
16. What exactly happens in containerization?
17. Explain Docker architecture?
18. How many ways can we create docker images?
19. Can you name some of docker commands?
20. How to generate image and run container using docker File?
21. What is port-mapping, explain it?
22. How to achieve scalability and portability?
23. How to generate image from build-packs?
24. How to generate image from google jib?
25. How to push docker image from local to remote?
26. What is docker compose, why we need it, explain?
27. How to handle configuration management in microservices?
28. How configurations handled in traditional apps and micro services?
29. How configurations work in spring boot applications?
30. How many ways can we read properties in Spring Boot?
31. What are profiles in spring-boot?
32. How to externalize configurations using command-line arguments?
33. How to externalize configurations using JVM system properties?
34. How to externalize configurations using environment variables?
35. What is relaxed binding?
36. What are the drawbacks of externalizing configurations using spring-boot alone?
37. What is spring cloud config, explain it?
38. Steps to read configurations from class path?
39. How to establish link between config server and microservice client?
40. Steps to read configurations from file system?
41. Steps to read configurations from Git?
42. How to Encrypt and Decrypt configuration properties?
43. How to handle modifications to configuration at runtime, explain refresh API, Drawbacks?
44. Explain about Spring Cloud Bus?
45. Explain about Spring cloud monitor?
46. Difference between Liveness and Readiness?
47. How service communication happens in traditional apps?
48. How traditional load balancers works? Limitations with traditional LB?
49. How microservices locate each other in the microservice network?
50. Explain about client-side service discovery and load balancing?
51. What are the components available for client-side discovery and load balancing?
52. What are the other service registries other than Eureka?
53. Advantages of Service discovery?
54. How to de-register microservice from Eureka Server?
55. How self-preservation mode works in Eureka server?
56. How to handle Routing and cross cutting concerns in microservices?
57. What is API Gateway/Edge Server and explain about the tasks that Edge server does?
58. What are the Spring cloud gateway features compared to Zuul?
59. Explain about spring cloud gateway internal architecture?
60. How can Gateway server accepts service names in lower case?
61. How to implement custom routes in Gateway server?
62. How can we add predefined filters in Gateway?
63. How to implement cross cutting concerns tracing and logging?
64. Why Hystrix is using as a fault tolerant library?
65. Explain about microservice resiliency?
66. Explain about Resillience4j?
67. How to implement Circuit Breaker design pattern?
68. How to implement Fallback pattern?
69. How to implement Retry pattern? Key components?
70. How to implement Rate limit pattern? DOS attack?
71. How to implement Bulkhead pattern?
72. Explain about other microservice design patterns?
73. How can we secure microservices?
74. What is the basic authentication?
75. What are the drawbacks of basic authentication?
76. What is OAUTH2? What are the advantages of OAUTH2?
77. What are the jargons in OAUTH2? Explain with example?
78. What is OpenID Connect & Why it is important?
79. Can you name some of the IAM products?
80. Explain about client-credentials grant flow in OAUTH2?
81. Explain about 15 factors?
82. What are the deployment strategies?