**POD Question Bank:**

1. Difference between public private and protected.
2. Static and Synchronize keyword
3. Inheritance in Java
4. Reflection in Java and its usage
5. Parallel processing vs Asynchronous processing
6. RESTApi and Performance of RESTApi and how to improve it and protocol
7. Concurrent collections
8. SQL: Primary key, indexes investigate and improve SQL queried and how does indexes work.
9. Microservice and communication between different microservice
10. JWT token
11. Explain about the challenging task that you have previously worked in your project.
12. Junit: How to write Junit for RESTApi.
13. Java SOLID principles
14. Thread Wait and Notify method
15. Difference between "is a" and "has a" relationship
16. Is a vs Has a relationship
17. LinkedList vs ArrayList which is better for manipulation
18. Secured data which of these is strong character array vs string array
19. ThreadLocal class
20. volatile keyword
21. Sleep vs Wait
22. TreeSet
23. Comparable Interface
24. Indexes
25. Design Patterns
26. Difference between NOSQL and SQL
27. Design solution for a chess application
28. Explain caching and its applications
29. How will you remove an element from Cache HashMap
30. What is Power Mockito
31. Difference between Streams and for loop
32. Optimistic and Pessimistic Lock
33. Explain Design Patterns
34. Spring Boot related questions (Beans, Profiles)
35. Have a look into these also
36. difference between access modifers,
37. static final keyword,
38. exception handling,
39. when finally block will not get executed,
40. primary key in sql
41. streams and its types
42. api performace handling,
43. what are your roles and responsibilities? Give brief details?
44. what enhancements you done in your project?
45. Do you know any other programming languages? Do you know C++?
46. why java is platform independent?
47. what is class file? what JVM does with .class file?
48. what is role of class loader? types of class loaders?
49. what are wrapper classes?
50. what is casting? how many types? why do we need it?
51. string is mutable or immutable? what is immutable?
52. first s1="abc" and then s1="bcd" what done internally?
53. stringbuilder append() what it will happen? does it store in same string?
54. what is == and equals do in case of string?
55. method overriding?
56. why do we need interfaces if we have overriding?
57. multiple inheritance in java?
58. abstract class vs interfaces
59. protected and private access modifiers?
60. main method what is role of static?
61. what do you know about final keyword?
62. Realtime example of final variable?
63. what is use of finally block?
64. when finally block will not execute?
65. finally without try and catch
66. hierarchy of exception?
67. checked exception vs unchecked exception?
68. I throw checked exception without handling does it compile?
69. Program -> integer array combination of two integers which sums to 9? and print all pairs? without duplicate pairs?
70. sql employee db table same data twice there is no primary key. how do you delete duplicate record?
71. Data-structures and Caching:
    1. Cached memory management
    2. Caching applications and LRU use cases
    3. Factory design pattern, Builder design pattern, Singleton design patterns
72. primary key and unique key?
73. difference between drop and truncate?
74. union in sql?
75. I want to search records employee name starting with "su"?
76. how do you run threads?
77. difference b/w runnable and callable
78. java8 streams intermediate and terminal Operators
79. how find length of each words in string array.
80. difference beetween Boolean and boolean
81. whats is use of design pattern
82. what is singleTon Design pattern. How to break single Design Pattern
83. Given two database query to check which one is better.
84. how to improve performance Sql Query
85. what executor service?
86. what happen when you set priority to thread. what will happen internally?
87. can a thread be synchronized? can we serialize a thread?
88. difference b/w notify and notifyAll?
89. difference b/w hashset and linkedhashset? did you use them?
90. Which collections you use for sorting in Set?
91. Internal working of hashmap? How collisions occurs?
92. Is HashMap threadsafe? Is there any threadsafe alternatives for hashmap?
93. what is threadlocal?
94. what you choose b/w creating thread b/w extending thread and implementing runnable?
95. difference b/w post and put? which is more secured?
96. why do we need collections?
97. why do need hashmap and linkedlist and other collections?
98. Authorization and authentication
99. Previous project details and work or task you have worked on in details.
100. Questions related to time complexity: Programs given explain the time complexity
101. Maven vs Gradle
102. Rest Api, Rest Controller
103. path variable vs query param
104. POST vs PUT
105. multiple DB configuration
106. programming question second largest number from array
107. hashMap Collison
108. rdbms vs NOSQL DB usage
109. Controller vs restcontroller?
110. what is DI in spring?
111. Why during server start up it's taking time to launch the server?
112. Which latest features of Java version have you used and are you currently using in your project, like new feature in java 17 -> Pattern matching for switch expressions, Sealed classes, Java 11 -> Local variable syntax for lambda, new string methods, Java 8 -> streams
113. Why moving from monolith to microservices, as in my case I have elaborated recent project was this moving from monolith to microservice

Programming Questions:

1. Java program: from a sentence, get the count of words that is getting repeated max number of times and print the word and the count
2. in a list of integer >10 no filter and multiply by 2,
3. Java program to reverse a string (containing special characters) but the position of number and special character shouldn’t change. example: Input - //ASH%$13sha output: ahs%$13HSA
4. Find the 3rd unique character from a sentence
5. Write a program to show an instance of deadlock.
6. program to sort the added elements use collections like treeset and sort based on their employee id?
7. Write multithreading program
8. Create two int array, find all the element in second which are not present in first array and store the result in third array
9. Create int array, add two adjacent number in the array and find the element in result which are greater than 6
10. Write Java program that using an input array returns the largest sum of consecutive k elements and the starting index of the first such element. Examples: Input : arr[] = {100, 200, 300, 400}, k = 2

Output : Sum: 700 Start index: 2

Input : arr[] = {1, 4, 2, 10, 23, 3, 1, 0, 20}, k = 4

Output : Sum: 39 Start index: 1

1. insert the digit 5 to make a number biggest, example input 267- output 5267, input 672, output - 6752, for -999 -> -5999