Data structure
1)Array
2)linked list
3)stack
4)queue
5) binary search
6) Tree traversal

Design patterns
1)single ton
2) factory
3) builder

Collection
1) arraylist
2) tree map
3)hash map
4) hashset
5) aware of array

Multithreading
1)callable interface
2)executor services
3)thread concepts and methods like join

Opps concepts
1)data hiding
2)encapsulation
3)serialization - deserialization
4)string
5) exception handing

Diff between identity hasmap and weekhashmap

Restful services - components
Services
Bean life cycle
Quaryparam
Pathparam
Path variable
Https methods

Rdbms- find nth highest salary of an employee

Knowledge of springboot and worked on microservices using springboot

1. Design pattern implementations
2. LinkedList, Queue implementation with generics
3. ExecutorService implementation
4. Lambda expressions and streams implementation
5. Implementing Callable and runnable interfaces
6. Examples of functional interfaces
7. Collectors in Java
8. Internal working of TreeMap, TreeSet, HashMap, HashSet, ArrayList, LinkedList
9. How to do auto-configuration in Spring Boot
10. Understanding git or any version control system
11. Understanding CI/CD process
12. Junit, Mockito and it's uses, Power Mockito
13. Spring AOP
14. Blocking Queue
15. How to select thread pool size in executor
16. Understanding the system and architecture of current working project in detail

[12:28 PM, 12/30/2020] Siva Anna Info: Altimetric questions

Anuradha : L1 interview

1. Check balanced paranthesis program
2. Query need to delete duplicate record
3. Need to find unsorted sub array
4. Internal working of Hash map , concurrent hash map , Hash set
5. Executor framework in threads
6. If class is singleton and inside of any instance is prototype how you will do.
7. Singleton design pattern
8. Quick sort , Merge sort (Always asking)
9. Java 8 features

Ramesh L2 :

1. Design patterns
2. Limitations of singleton design pattern
3. Implement stack using queue
4. Implement queue using stack
5. Tree traversals (inorder , preorder , post order)
6. Need to check whether tree is bst or not....

[12:28 PM, 12/30/2020] Siva Anna Info: Anuradha :

1)Java call by value or call by reference ? Why ?
2)String is immutable why ?
3)Write a program to find sum of numbers greater than 5 in an array using java 8

Prerequisite condition : Array will be there with 1,2...10 we need to print sum of 6+7+8+9+10 bcoz she asked number greater than 5

4)Normal java 8 features lambda expression , functional interface , method reference , default & static methods

Anuradha : Thread Life cycle, synchronization in threads Kuda adugithundi

Rest api
Eureka service discovery
@getRestTemplate
Webclient
Curd repository
Jpa repository
ORM mapping
Hibernate basics
Junit
Mockito
@EmbeddedId
@qualifier

Agile development method
Scrum

- @RequestMapping, @RequestParam
-
- Tree Traver
- Binary Search Tree (InOrder)
- Project issue.
- Array
- Interface, abstract
- Types of inheritances in Java
- String
- Ways of Creating Object for Class
- Problem (arr{ 6, 2, 4, 4, 9, 10} → Sum of 8 Combinations)
- 2 Threads ⟹ List → {1 - 10} → Output : 1, 2, 3, 4, ... 10
  t_1 = Odd numbers, t_2 = Even numbers.
- Increment Operator Thread Safe ?
- DateUtils Class mutable or immutable ?
- volatile Keyword
- Bean Scope
- Blocking Queue

__/__/____

* How Prototype Bean will insert in Singleton Instance.
* Reflections
* Query
* Exception Handling

TECHNICAL ROUNDS

Core Java:

Core Concepts:

- OOPS concepts
- Diff between aggregation & inheritance
- Optional
- functional interface
- marker interface
- Super class of all other classes in java
- Go thru all the methods present in Object.class
- Garbage Collection
- Aggregation
- Wrapper class
- Covariant return type
- Serialization
- Streams,Terminal and intermediate methods
- Flatmap usage
- Default method
- Comparator,Comparable implementations
- Default size of arraylist when it is created
- what happens when adding one more element when arraylist default size exceeds
- Query optimization technique
- Create custom exception
- Different types of object instaniation
- Different constrain used in sql
- SQL for 3rd highest salary of employee
- Static keyword
- How will u say a class is immutable class
- What happens in finally block?
- Join types
- Throw throws difference
- how to convert a list to set, map to list, etc

Strings:

- Why string is immutable
- String pool
- Ways to initalize a string
- Diff btwn string str; and string ob = new string();

Threads & Sync:

- What is a thread
- Thread pool and types of thread pool
- Diff btwn scheduled thread pool and cached thread pool

multithreading
deadlock
lifecycle of thread
thread lock
notify,notifyall,join
How to use a thread ? -Runnable & Thread.When to use them?
Callable & future interface
Atomic Integer
Convert non sycn collections -> sync
When we iterate a list and we use remove operation during iteration what will happen
What is concurrentModificationException - how to overcome?
concurrentHashMap, copyOnWriteArrayList
Synchronized

DS:

Singly,Doubly,Circular LL internal working -Program to insert,calc length,delete.
Reverse a Singly linked list
Find if a string is palindrome using Linked list
Find middle element of Linked List
Internal working of :
hashmap(hash collision, load factor, rehashing, put() & get() working)
hashset
Stack using array & linked list -Code
Queue
Just Theory:
Vector
PriorityQueue
ArrayDequeue
Deque
Blocking queue

Worst case Ques:
Binary Tree
Binary Search Tree
Tree traversals-
BFS : Level Order
DFS : In,Pre,Post Traversals
AVL tree
When do you say a tree is balanced?How to balance a tree? - Check AVL insertion
RBT
Why Binary tree -> Why Binary Search Tree -> Why AVL -> Why Red Black Tree?

Graph traversals
Spanning tree -Theory
Minimun Spanning tree - Prims and Kruskals Algorithm

Algorithm of :

Search - 2 Linear,Binary
Sort- 5 Selection,Bubble, Inserting,Merge,Quick
Best sort?
Collections.sort, Arrays.sort uses which algorithm?
Collections.sort, Arrays.sort uses comparable/comparator?
[Note the Time complexity & Space Complexity for all search & sort]

Spring & MVC:

Why Spring Why spring boot -features and advantages
@requestParam,@requestmapping
@PathVariable
@component vs @service/@repository/@controller
@requestParam vs @PathVariable
@Controller vs @Restcontroller
What is the use of @SpringBootApplication?
Front controller
View Resolver
Dependency Injection
Types of dependency injection
Jus go thru some common annotations-Qualifier,Autowire,SpringBootApplication etc
Diff between GET,POST,PUT,DELETE
Http responses
Bean scopes
Worst case:
Aop
Caching in hibernate
Hibernate
Types of table relationships
Different state in hibernate

Differences:

BFS and DFS
Collection and collections
Comparotor and comparable

Failfast iterator and fail safe iterator
String builder and string buffer
@component and @ service
Interface & Abstract class
Iterator vs Enumerator
Map vs Flatmap
Map vs Set
Arraylist vs hashmap
arraylist vs linkedlist
hashmap vs hashtable
hashmap vs concurrentHashMap
hashmap vs linkedhashmap vs treemap (similarly for set)
Must hv idead abt Diff. between all the collections

Some Random Ques:
What are the variables used in js
Diff between ==, === in js
Data types used in js
How will u connect js and xml
What is elastic search?
Diff between NoSql vs SQL DBs
Difference between rest and soap webservice
Microservice questions, architecture, advantages, etc
How to analyze time complexity for a program
Junit Mockito working
String based programs from Hackerrank,leetcode
