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#########Core-Java###########

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what are the java memory areas?

Describe Java memory model and how garbage collection manages memory.

how JVM works?

how do you overcome memory overflow error?

explain java class loader?

what are class loader and how many types?

whether we can extend two classes? if we extend how to do that?

what is copy constructor, how do u clone an object (deep and shallow)?

Does constructor return value if not when we use new operator it’s returning the value?

What is constructor over loading?

Do constructor inherited?

What are immutable classes? How to create immutable classes? What are advantages of Immutable classes?

What is the use of inner class or anonymous class?

what is path and class path?

What is overriding and overloading? what is runtime and compile time polymorphism?

What are the rules for overriding?

what is serilization and how do you do? can u write serilization? what are the method

what is transient?

what if you serilize the singleton object and while deserilization how do u make sure only one instance is created?

whats final and finalize?

differnce between outofmemory and stackoverflow?

abstraction vs encapsulation?

inheritance vs polymorphism?

Wrapper class in java?

Write code - Input:abc, Output: abc acb bac bca cba cab print?

Difference between class, subclass and inner class?

What is Interface and abstract class and the situation to use.

differences among Association, aggregation, composition?

write code take integer array and sum of those

  write code take array of int and pair of two numbers will be next number in the array (4,2,42, 242.)

what is contract between equal and hashcode?

why we override equals and hashcode?

Write the implementation of equals and hashcode methods?

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#########--String---###########

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What is string pool? Can we have mutable string in Java?

What is difference between String/StringBuilder/StringBuffer?

* String pool,
* thread safety,
* tostring() overridden in all three?
* ,hascode and equals overridden all three?,
* reverse and delete method is all three?
* Object creation
* concatenation

Which is the final class in these three classes – String, StringBuffer and StringBuilder?

What is intern in Strings?

what is immutable, how do u implement?

How to create immutable class? What if class is not final?

Write an immutable class.

Which one will you prefer among “==” and equals() method to compare two string objects?

do you have any idea why strings have been made immutable in Java?

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#########--Exception-Handling---###########

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Whats the use of finally ?

What is difference between ClassNotFoundException and NoClassDefFoundError?

What is throwable, interface or class?

Difference between throw and throws

Can we use try without catch?

What order catch block should be defined?

checked exception and unchecked exception?

what is filenotfound exception?

how to handle nullpointer exception?

exception hierarchy in java?

how to write custom exception in java?

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#########--Java-8---###########

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what is method references?

Explain String::someMethod ?

what is java8 features, whats the advantage of lamda expression ,streams?

Explain pipeline stream into Java. Does stream creates copy of collection object or uses same reference.?

what is the use optional feature?

what is date Api?

forEach and stream in java 8?

how to concat 2 streams in java 8?

iterate element from list with java1.8

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#########---Collection---##################

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Collection Framework – List, Set, Queue and Map. Fail-safe and Fail-fast implementations. Sortable Interfaces with implementations.

How sorting works in collection frameworks – Comparator and Comparable

what is fail safe and fail fast?

In which scenario we have to use failsafe and fail fast? did u used? In which scenario u used?

How to make list to failsafe?

diffrence between array list and linked list?

Stack implementation using link list

Difference between Vector/ ArrayList?

What is copyOnWriteArrayList?

difference between list and linkedlist,when they are used?

Implementing Singly linked list

how to convert list of employee to map ?

suppose if have 10 employee object in a list, how do u sort them by id and Name?.

when we use comparable and comparator.

how you sort the list? write the program to sort list using single for loop ascending or descending? what is the complexity?

Different Collection framework interfaces and classes

HashMap internal working? What is the datastructure used?

how HashMap works? technique? complexity?

In Hash map how to use user defined object as key?

Difference between HashTable/HashMap.

What is a hashmap. How you can iterate Hashmap . write implementation.

Map implementation, how to iterate the hashmap?

how to synchronize HashMap?

what is concurrent hashmap?

what is week hashmap?

TreeMap vs SortedMap

What is week reference and what is strong reference?

design map such way if we have value ,get the key ,vice versa?

Tell the size of the set here?  
Solution:  
Set set = new HashSet<>();  
Student s1 = new Student();  
Student s2 = new Student();  
set.add(s1);  
set.add(s2);  
set.size(); // answer is 2

How Set implemented internally?

what happens if add null to tree set---null pointer exception.?

difference between comparator and comparable

Comparable and Comparator with example. Write implementation of these interfaces

difference between stack and heap?

Difference between iterator and ListIterator?

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#########--Thread\*\*\*\*Synchronization--##########

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what is synchronization

How do we create thread? what if we are not implementing run() method in Thread class does it give error?

What will happen to static method and common shared object during multithreading

What will happen to multithread program accessing different objects per thread

what are method in Object Class(wait,notify,equal and hascode...etc)?.

a class has static and non static synch , created two thread of the same class

trying to invoke synch static ,what wil happen, with synch method and without synch

static? synchronized ? static synchronized methods order of the execution?

what are blocking queue?

what are reasons for thread to be in waiting state?

what is volatile variable

how multithreaded application returns thread

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##################--Spring--####################

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Spring IOC container inner working

Spring different annotations

whats the use of dependency injection?

Spring AOP interceptor inner working

Implementing Spring data jpa with multiple databases

How singleton is implemented within spring IOC, how to change the scope with implementation

AOP , what is advice( looking for this concept)?.

In spring- singleton scope is threadsafe?.(its not thread safe)

Different ways to implement Singleton, how to implement singleton in serialiazable case

Configuring build using maven/gradle with spring application

Why use Spring Boot? What are advantages? How to manage custom dependencies other than provided by Spring Boot.

What is use of Spring Data?

architecture of spring, hibernate

transaction management in spring

how spring boot starts up?

how spring security works?

how do you handle authenticaion in spring boot

Aop-transaction management

how to deploy spring boot application production

how spring boot application works?

If @component not used what happen in springboot?

What is @component?

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#########--MVC-REST--####################

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MVC framework internal working for struts and spring

Different REST implementations(jersey and resteasy)(examples for POST, PUT)

UI framework like react/angular:(How to build, test, design UI, include CSS, integrate with spring ui like thymeleaf)

javascript,restful,boot strap

which annotation used , whats the difference it makes if you use component instead service

what is rest

what is path annotation

how httpheader recieved in rest

what is servlet, how multiple request to a servlet is served?

servlet life cycle, what is servlet?

how multiple request are served in servlet?

how to propogate exception to front end?

how to make asynchronous calls to rest api?

how do you tel webservice that you want particular type

how to mention the converter in response body

autowire return type

rest controller and controller

SSL/http request

Difference between PathVariable PathParam and QueryParam. Why Queryparam is better tha PathParam?

Write the rest api for @PathParam

What are the http status code in rest?

can we have only 1 rest api for 2 different customer ?if yes how to do it?

Rest API methods, and explain with examples for get and post methods.

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#########--JPA\*\*\*\*HIbernate--#################

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1Entity mapping types in JPA or Hibernate

2)JPA Lifecycle events : PrePersist, PostPersist, PostLoad, PreUpdate, PostUpdate, PreRemove, PostRemove

3)What is difference between Hibernate and JPA? Or are the same?

4)what is different level caches?

5what is session factory?

6)what are the annotation in JPA?

7)what is a Named Query?

8)what is difference between get and load?

// Add method using JPA  
@PostMapping("/students")  
public Student add(@RequestBody Student student){  
repo.add(student);  
}

What SQL injection

How to unable second level cache

@primary in hibernate

How to improve application performance

11. What ORM tool?

12. caching in hibernate

13. Mapping in hibernate

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#########--Data-Base--####################

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difference between primary key and unique key?

difference between joins and subqueries

Triggers in DB

How do you invoke Procedures and functions

What are different DDL and DML statements in SQL

Stored procedure various blocks, how to invoke them

what is comman for update column size in db

there multiple operation db get rid redundancy --optimal

joins,subqueries,triggers ,procedure

diff between subquery and joins?

integrate sql and java

what is ddl dml?

what is ACID property

what is jdbc connection steps

what is locking in the db in Transaction management?

explain joins

callable interface and runnable interface

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#########--Microservices--####################

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how do you manage Transaction in Microservice?

how do you manage session in Microservice?

how do you secure Microservice?

How each service communicate with other service in microservices architecture?

How will you migrate monolitic application into micro service application

What is difference between monolithic application and microservice application.

What is advantage of microservice architecture over monolithic.

 How to authenticate the microservice

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###############--Docker--Kubernetes--################

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How does docker, Kubernetes, OpenShift works into containerization.

Explain concept of scalability and HA into containerization.

Explain single sign on.

What is difference between docker file and image file? Which one used for container deployment.

How will you capture container health matric data? Using yaml or json format.

Why do we use Kubernetes and dockers?