I.

Questions **Core Java** **ABHISHEK**

1. Define JDK, JRE and JVM.
2. Significance of Public Static void main ( ).
3. Why main method support string args ( )?
4. Constructor chaining.
5. ooPs Concept (Inheritance, Polymorphsin, Abstractor encapsulation).
6. Difference b/w Interface and Abstract Class.
7. Multificatch Block.
8. Final, Finally and Finalize.
9. Why String is inheritable and how can we create our own inheritable class?
10. Hashmap Vs Concurrent Hashmap.
11. Hashset Vs Hashmap.
12. Internal working of hashmap.
13. How Hashset avoid duplicate values in collection?
14. Stream API and its uses.
15. How to restrict a class to create only single instance?
16. Programs:-
    - Surfing of Array
    - Palindrome (string, Integer)
    - Largest element in an array
    - Occurrence of character in a given string.
    - Programs related to collection to add elements and iterate them.
    - Program to count the number of words in string.

II

Spring Iscot

1. Significance of springboot over spring.
2. Different annotations (Authorized Requested Parma etc).
3. Difference b/w @ component and @ service.
4. @ Qualifier.
5. Define MVC architecture of SpringBoot.
6. Spring Initializer .
7. Spring Actuator.
8. SpringBoot Scope of Bear.
9. Default scope of bear.

Hibernate

1. What is the significance of Hibernate over JDBC.
2. What is Session and Sessionfactory in Hibernate.
3. What is Dialect in Hibernate.
4. Mappings in Hiberate.
5. What is lazy Eager Loading in Hibernate in Hibernate.
6. How do we declare multiple primarykey in Hibernate.
7. What is a POJO Class.
8. What Parameter that Repository accepts.

III

SQL

1. Foreign Key Vs Primary Key.
2. Delete Vs truncate Command.
3. What is A alias in SQL?
4. Joint and Types of Joins.
5. Self join in SQL.
6. DDL Vs DML.
7. Finding 2nd Map Salary from a table.
8. How to find records of last 10 students.
9. Finding Duplicate Records from table

Extra Questions

1. What is string intern ( ) ?
2. What is Runtime Polymorphsin?
3. What is the need of creating incomplete methods in Interface?
4. Difference b/w this and super keyboard.
5. How to Pretgrate Email Apt to the Project.
6. JSP tags.

1. Oops concept? Explain briefly with example.
2. JDK, JRE and JVM. Is java call by value or call by reference?
3. What is Class Loader?
4. What are access specifiers in java?
5. Difference between abstract class and interface?
6. What are the new features are there in Java 8?
7. Difference between Java 7 and Java 8?
8. Why string is immutable?

9. Difference between string, string buffer and string builder. When to use string, string bufferand string builder.
10. What is boxing and unboxing?
11. What is constant pool?
12. What are the types of memory in java?
13. What is static keyword and difference between static and non-static?
14. Difference between return and return value?
15. How many types of variables in java?
16. What is var type in java?
17. Difference between final, finally and finalize.
18. What is constructor? How to call parent class constructor in child class?
19. What is Constructor overloading and Constructor chaining?
20. What is default constructor?
21. What is Functional Interface in java? Can you inherit functional interface?
22. What is Lambdas Expression?
23. What is optional class in Java 8?
24. Why main method is Static?
25. What is Sam Interface?
26. What is marker interface? What are the marker interface are there in Java?
27. What is exception and how to handle exception in java? Exception hierarchy.
28. Different between exception and error?
29. Can we write try finally without catch?
30. Why to use finally block in try catch? Example.
31. Difference between throw, throws and throwable.
32. How to create custom exception? Write code.

33. Suppose there is three class and each class is independent with each other if exception occur in last class then how to handle it in first class?
34. Can you write multi catch block?
35. What is serialization? Why we use serialization?
36. What is transient keyword?
37. What is thread?
38. Explain thread life cycle. What is thread pool?
39. What is multithreading?
40. Difference between thread and process?
41. What is thread join?
42. Difference between wait and sleep.
43. Difference between wait, notify and notify all.
44. What is thread synchronization?
45. What is type casting and class casting?
46. Difference between .equals() method and ==.
47. What is aggregation, association and composition?
48. Garbage collection in java.
49. Output:

```
Integ
er i =
127;
Integ
er j =
127;
System.out.println(i == j);
```

Collection Framework

1. What is collection?
2. Difference between List and Map.

3. Difference between Array list and Linked list.
4. Difference between List and Set.
5. Difference between Array and Array List.
6. Difference between Vector and Array List.
7. Difference between Vector and Queue.
8. Difference between Hash Set and Linked Hash Set.
9. Difference between Hash Set and Hash Map.
10. Difference between Hash Map and Hash Table.
11. Difference between Hash Map and Linked Hash Map.
12. Difference between Tree Set and Tree Map.
13. Difference between Comparator and Comparable.
14. Difference between Iterator and Iterable.
15. Difference between Collection and Collections.
16. What is Collison?
17. What is Iterator?
18. How to iterate list?
19. How to iterate map?
20. What is Fail Safe Iterator and Fail Fast Iterator?
21. How to remove duplicate entries from an Array List using stream?
22. How to add only unique records in Array List?
23. What will happen if you don't override hashCode() method and equals() method?
24. How hash table works internally?
25. How to sort a collection? How many ways to sort a collection?
26. How to add a collection in another collection particular index?
27. How to compare two collection?

Hibernate

1. What is Hibernate?
2. What is ORM?
3. What is HQL?
4. Difference between JPA and Hibernate?
5. Difference between JDBC and Hibernate?
6. What is JPA?
7. What is persistent in Hibernate?
8. What is session in Hibernate?
9. What is session factory?
10. What is session?
11. Difference between get() method and load() method.
12. What is lazy loading in Hibernate?
13. How many types of association mapping is there in Hibernate?
14. What are the key components are in Hibernate?
15. What is transaction in Hibernate?

Advanced Java/ J2EE

1. Write down the code for JDBC.
2. Difference between doGet() and doPost() method.
3. Explain Servlet life cycle.
4. What is session in servlet?
5. What is request dispatcher?
6. What are the features available in Spring Boot?
7. What is spring initializer?
8. Difference between spring and spring boot.
9. What is spring IOC container?
10. Explain bean life cycle.
11. What are those spring starter available in spring boot?

12. What do you mean by Dependency Injection?
13. What is bean factory?
14. Bean scope?
15. What all annotations you know in spring boot?
16. What is spring MVC?
17. What is spring profile?
18. What is spring security?
19. What is application.property file in spring boot?
20. What is spring actuator?
21. How to connect spring boot with the database?
22. Difference between @Controller and @RestController.
23. How to use two database in spring boot?
24. What is web services? Types of web services?
25. Difference between Monolithic and Micro services?
26. How you tested web services? Tool you used.
27. What is idempotent?
28. Status codes 201, 501, 500, 203, and 404.
29. What is PACT and OAUTH?
30. What is post man?
31. What all HTTP method you used in your project?
32. How to expose web service and consume web service.
33. How to send email and write code? Which dependency you added for this?
34. What all micro services you know?
35. How you managed you codes or How to share your codes with seniors?
36. Which design pattern you follow in your project?
37. What all configuration you have done in your project?
38. Explain project flow.

Fractal

1.inhertan

2.polymorhism

3.execption(https://www.geeksforgeeks.org/exception-handling-with-method-overriding-in-java/) 4.program

(wap to print a char with max consequtive occurance String str= "aa bb aaa c ab"

(in this case aaa is max consequtive occurance, so i should print a) String str= "aa bbbb aaa c ab"

(in this case bbbb is max consequtive occurance, so i should print b))

5.how to pass own attribute (i.e, name="abc") to controller layer or service layer in spring boot 6.output:

```
**a.java**
public class A {
public    void    test(Object    obj)
System.out.println(1);
public    void    test(String    str)
System.out.println(2);
**b.java**
public class B extends A{
        public  static  void  main(String[]
                args) { B b = new B();
                b.test(null);
```

7. java 8 features

VolkswagenIT

Functional interface

Oops concept

Java 8 features

Stream api

Lambda expression

Throw and throws keyword

Final finally finalize

Hashmap and hashtable

Exception

Immutable class

@controller and @Rest controller

Capgemini

Java 8 features Access Specifiers

Arraylist and linkedlist Abstract class and interface @autowired @requestmapping@ getmapping Oops conceptRuntime polymorphism Checked and unchecked exception FinalFinally serialization Overloading and overridingHow to connect 2 tables in spring application Project explanation

Newgen

Polymorphism Overriding and overloading AbstractionEncapsulation Lambda expression Functional interface Hashmap Arraylist and LinkedList Transient keyword Synchronization ORM tool Project

Fujitsu

New features of java array list and linked listmultiple inheritance possible in java How to change port numbersalary query from a table SQL string constant pool string objects stored in string constant pool or stack ? Status codes in Postman try catch finally encapsulation and abstraction hash map @Rest controller and @controller difference @getmapping and @ request mapping Get and Load Session Factory and Session what is multithreading, multiprocessing, multitasking and what is interface . .y in java 8 default keyword introduce in interface, difference between string bufferand string builder, what is immutable class how u will implement, what is exception and hierarchy, what is the difference between microservice and rest API, which collection u have used in ur project...

CORE JAVA:

1. Difference Between Object oriented programming and procedure oriented programming.
2. Is Java 100% object oriented programming language.
3. Difference between jdk and jvm.
4. Why pointers are not used in java.
5. Explain 4 basic oops concepts.
6. Functional interface and Lambda's expression. How these two are related to each other.
7. Use of marker interface.
8. What is object class and Which methods are present in the Object class.
9. Difference between abstract class and interface .If there are interfaces present then why we use abstract class.
10. Difference between final,finally and finalize.
11. What is Exception handling and Explain Exception handling hierarchy .
12. Difference between throw and throws keyword.
13. What is serialization and deserialization.
14. Use of super and this keyword.
15. Explain Thread Life Cycle,wait and sleep.
16. How threads are created.
17. String Builder and String Buffer.
18. Program on Comparator and Comparable.
19. Collections:
20. Difference between collection and collections.
21. Difference between Arraylist and Linked List.
22. Difference between Array and Arraylist.
23. Hashmap and Hashtable.Which one is used for better performance.
24. Program to retrieve 2nd element of the list from the bucket of Hashtable(Collision).

25. Difference between Hashmap, Hashtable and HashSet.
26. Program to store and retrieve data from the Hashtable.
27. Internal working of Hashmap.
28. What is Hashcode and Hashing technique.
29. Write a program for reverse of an array

Advanced Java:

1. Difference between JPA and Hibernate.
2. What is Get and Post method.
3. What is ORM technique.
4. Annotations used in Hibernate.
5. What is HQL.
6. @Value annotation.
7. Difference between Spring and SpringBoot.
8. @Qualifier,@Autowired ,@Component, @SpringBoot.
9. Which annotation starts the SpringBoot Project.
10. What is Bean Life Cycle and what is Spring IOC.
11. Difference Between @Controller and @RestController.
12. What are Stream API's.
13. What are Webservices and Microservices.
14. REST and SOAP API's.

MYSQL:

1. What are DML and DDL commands.
2. What is Stored Procedure.
3. Difference Between Truncate and Delete.
4. Views and Types of Joins .
5. 2nd and 7th maximum salary.

<u>Project:</u>

Explain briefly your project.

How many tables are present in your project. Which type of collection you use in your project. What was your day to day work in your company.

1. What is collection framework?
2. Difference between arraylist and linked list?
3. Difference between hashmap and hashtable?
4. Map interface?
5. How sort a list?
6. What is multithreading?
7. What thread and how many way we can create it?
8. What is string? Why it is immutable?
   1. OOPS concept (Inheritance, Polymorphism, Abstraction, Encapsulation) details. Difference
   2. between .equals and ==.
   3. Different ways to use a thread
   4. In two ways the thread can be used
      A- By extending the thread class
      B- By implementing the Runnable interface.
   5. Java is Pass by value or Pass or reference.
      Java is always pass by value. During method invocation, a copy of each argument, whether its a value or reference, is created in stack memory which is then passed to the method.

6. Is there any other instance in Pass by reference.

   Difference between Arraylist & Vector.

7. ArrayList is non-synchronized where as the vector is synchronized. So arraylist performance is better than vector.
8. What is immutable class. Give example in Java and how we can create it
9. Difference between abstract class and interface.
10. Hash Map Vs Hash Set Vs Hashing.
11. Java 8 features.
12. Primitive Data Type Vs Object Data Type.
13. Final Vs Finally Vs Finalize.
14. If we don't override hashcode() method then what will happen. If you don't override hashcode() then **the default implementation in Object class will be used by collections**. This implementation gives different values for different objects, even if they are equal according to the equals() method.
15. Replace Vs Replace All vs Replace First.

A- The **replace()** method is one of the most used string methods for replacing all the occurrences of a character with the given character. The replace() method of JDK 1.5 replaces the char and a sequence of char values.

B- The **replace All ()** method is similar to the String. replaceFirst() method. The only difference between them is that it replaces the sub-string with the given string for all the occurrences present in the string.

C- The **replace First()** method is another method for replacing the substring. It replaces the sub- string with the given string. The replace First () method replaces only the first occurrence of the sub-string.

Types of Statements in java?

Expression Statements

Expression is an essential building block of any Java program. Generally, it is used to generate a newvalue. Sometimes, we can also assign a value to a variable. In Java, expression is the combination ofvalues, variables, operators, and method calls.

There are three types of expressions in Java:

- Expressions that **produce** a value. For example, **(6+9), (9%2), (pi*radius) + 2**. Note that theexpression enclosed in the parentheses will be evaluate first, after that rest of the expression.
- Expressions that **assign** a value. For example, **number = 90, pi = 3.14.**
- Expression that **neither produces any result nor assigns a value**. For example, **increment** or **decrement** a value by using increment or decrement operator respectively, **method invocation**, etc.

Declaration Statements

In declaration statements, we declare variables and constants by specifying their data type and name. A variable holds a value that is going to use in the Java program. For example:

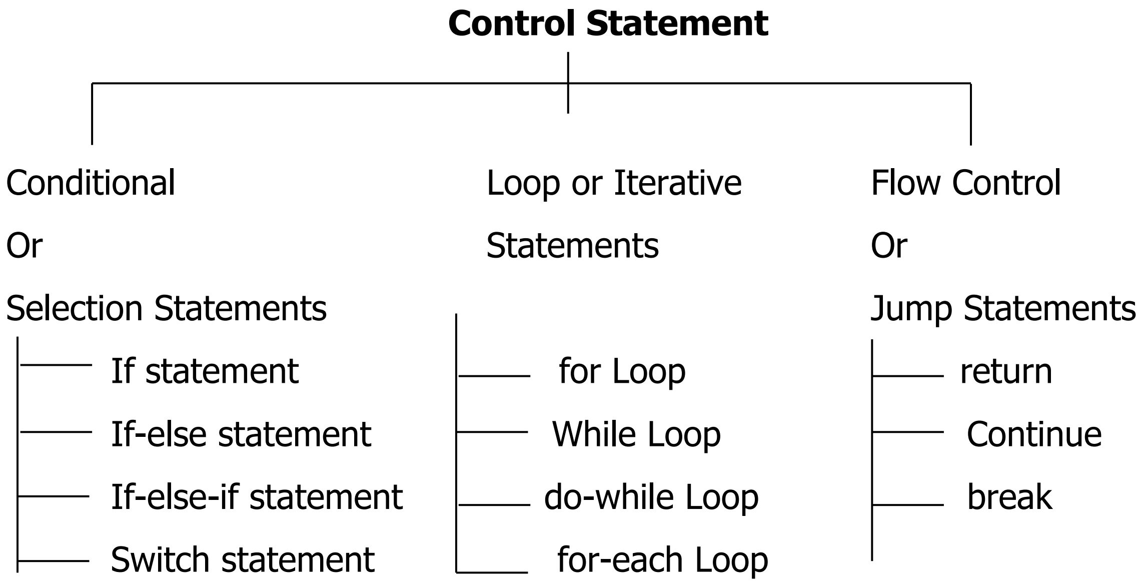
1. **int** quantity;
2. **boolean** flag;
3. String message;

Also, we can initialize a value to a variable. For example:

1. **int** quantity = 20;
2. **boolean** flag = **false**;

Control Statement

Control statements decide the flow (order or sequence of execution of statements) of a Java program. In Java, statements are parsed from top to bottom. Therefore, using the control flow statements can interrupt a particular section of a program based on a certain condition.



Control Statement

Conditional
Or
Selection Statements

- If statement
- If-else statement
- If-else-if statement
- Switch statement

Loop or Iterative
Statements

- for Loop
- While Loop
- do-while Loop
- for-each Loop

Flow Control
Or
Jump Statements

- return
- Continue
- break

PROGRAMS->

A. Different logical questions on String (.equals and ==).

B. Occurrence of character in a given string.

C. Find length of the given string.

D. Sorting of Array.

E. Palindrome of string, integer.

F. Armstrong Number

G. Sort an ArrayList.

H. In String find how many time occurrence of characters.

I. Remove duplicate characters from String.

SQL->

- Foreign Key Vs Primary Key.
- Drop Vs Delete Vs Truncate Command.
- Joins and their types.
- DDL Vs DML.

DDL	DML
It stands for Data Definition Language.	It stands for Data Manipulation Language.
It is used to create database schema and can be used to define some constraints as well.	It is used to add, retrieve or updatethe data.
Basic command present in DDL are CREATE, DROP, RENAME, ALTER etc.	BASIC command present in DML areUPDATE, INSERT, MERGE etc.
DDL does not use WHERE clause in its statement.	While DML uses WHERE clause in its statement.

- DBMS Vs RDBMS
- SQL Vs MYSQL Vs NOSQL
- Normalizations

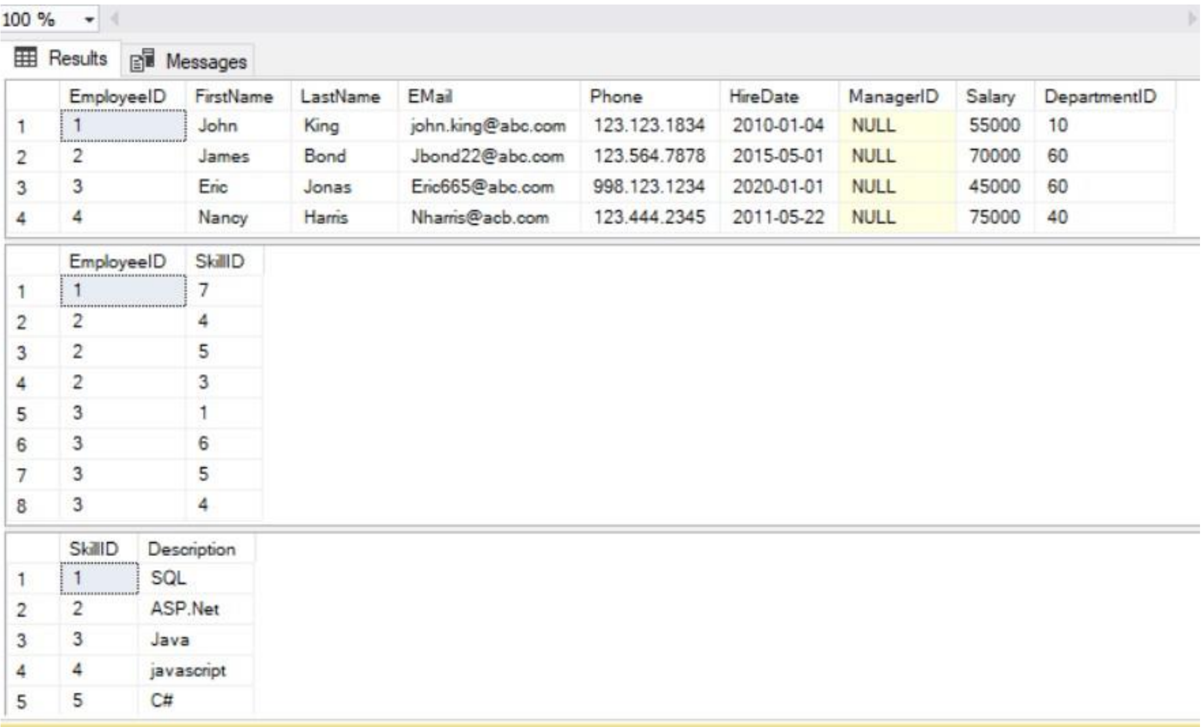
Normalization is the process to eliminate data redundancy and enhance data integrity in the table. Normalization also helps to organize the data in the database. It is a multi-step process that sets the data into tabular form and removes the duplicated data from the relational tables.

- Relationship in SQL and its types.

In One-to-One relationship, one record of the first table will be linked to zero orone record of another table.

In One-To-Many relationship, A single record from one table can be linked to zero ormore rows in another table

In Many-To-Many relationship, there is a junction table created which holds theprimary keys of another tables and marked as foreign keys.



	EmployeeID	FirstName	LastName	EMail	Phone	HireDate	ManagerID	Salary	DepartmentID
1	1	John	King	john.king@abc.com	123.123.1834	2010-01-04	NULL	55000	10
2	2	James	Bond	Jbond22@abc.com	123.564.7878	2015-05-01	NULL	70000	60
3	3	Eric	Jonas	Eric665@abc.com	998.123.1234	2020-01-01	NULL	45000	60
4	4	Nancy	Harris	Nharris@acb.com	123.444.2345	2011-05-22	NULL	75000	40

	EmployeeID	SkillID
1	1	7
2	2	4
3	2	5
4	2	3
5	3	1
6	3	6
7	3	5
8	3	4

	SkillID	Description
1	1	SQL
2	2	ASP.Net
3	3	Java
4	4	javascript
5	5	C#

- How to fetch common records from two tables.
- How to select unique records from a table.
- What is index in SQL.

Indexes are used to retrieve data from the database very fast. The users cannotsee the indexes, they are just used to speed up searches/queries.

The CREATE INDEX command is used to create indexes in tables (allows duplicatevalues).

Query- CREATE INDEX idx_last name ON Persons (LastName);

- 5.What is View in SQL.

In SQL, a view is a virtual table based on the result-set of an SQL statement. A view contains rows and columns, just like a real table. The fields in a view arefilled from one or more real tables in the database.

Query-

- What s Cursor in SQL.

Cursor is a Temporary Memory or Temporary Work Station. It is Allocated by Database Server at the Time of Performing DML(Data Manipulation Language)operations on Table by User.

There are 2 types of Cursors: Implicit Cursors, and Explicit Cursors. These are explainedas following below.

1. **Implicit Cursors:**

Implicit Cursors are also known as Default Cursors of SQL SERVER. These Cursors are allocated by SQL SERVER when the user performs DML operations.

2. **Explicit Cursors :**

Explicit Cursors are Created by Users whenever the user requires them. ExplicitCursors are used for Fetching data from Table in Row-By-Row Manner.

- CRUD operation quaries.
- How remove duplicates in SQL. Query-

WITH CTE AS (SELECT Name, Email City ROW_NUMBER() OVER (PARTITION BY NAME, EMAIL City)

(ROW_NUM FROM GEEK) DELETE FROM CTE WHERE row_num≥ 1;

17. SPRING BOOT->

A. Spring Vs Spring Boot (Advantages, Disadvantages, Which one is better).

B. Spring Initializer.

The Spring Initializr is ultimately a web application that can generate a Spring Boot project structure so that we can import that into the IDEs like eclipse…

c. Spring Acuator.

Spring Boot Actuator is **a sub-project of the Spring Boot Framework**. It uses HTTP endpoints to expose operational information about any running application.

The main benefit of using this library is that we get health and monitoring metrics from production-ready applications.

d. Spring Boot starter.

Spring Boot Starters are **dependency descriptors that can be added under the <dependencies> section in pom. xml**. There are around 50+ Spring Boot Starters for different Spring and related technologies. These starters give all the dependencies under a single name.

e. Spring MVC.

A Spring MVC is a Java framework which is used to build web applications. It follows the Model-View- Controller design pattern. It implements all the basic features of a core spring framework like Inversion of Control, Dependency Injection.

f. Flow of Spring MVC.

g. Advantages of Spring MVC over other framework.

   i. Excellent support for developing Restful web services.

   ii. **Separate roles** - The Spring MVC separates each role, where the model object, controller, view resolver, Dispatcher Served, validate, etc. can be fulfilled by a specialized object.

   iii. **Light-weight** - It uses light-weight served container to develop and deploy your application.

   iv. **Rapid development** - The Spring MVC facilitates fast and parallel development.

   v. **Flexible Mapping** - It provides the specific annotations that easily redirect the page.

h. Declaration of different layer in Spring Boot.

i. How to connect Spring Boot application to database using JDBC.

j. What is spring starter parent dependency tag.

k. 6.How you exposing data and how do you consuming it.

l. Bean factory vs Application context .

One difference between the bean factory and application context is that the former only instantiates bean when you call get Bean() method while Application Context instantiates Singleton bean when the container is started, It doesn't wait for the get Bean to be called.

m. Types of Bean Scope.

1. Single Tone
2. prototype
3. request
4. session
5. Global Session

n. Types of Auto

Wiring.

1. no
2. By name
3. by Type
4. Constructor
5. AutoDetect

18. HIBERNATE->

A. What is ORM ?

B. Hibernate Vs JDBC.

JDBC	Hibernate
It is database connectivity technology	It is a framework,
It does not support lazy loading	Hibernate support lazy loading
We need to maintain explicitly database connection and transaction.	Hibernate itself manage alltransaction
Low performance	High Performance

c. Session and Session Factory in hibernate.

Session Factory is a class for Session objects. It is available for the whole application while a Session isonly available for particular transaction.

Session is short-lived while Session Factory objects are long-lived.

Session Factory provides a second level cache and Session provides a first level cache.

d. Lazy Loading in hibernate.

Lazy loading is a fetching technique used for all the entities in Hibernate. It decides whether toload a child class object while loading the parent class object.

e. Caching in hibernate.

Caching is a mechanism to enhance the performance of a system. It is a buffer memory that lies between the application and the database. Cache memory stores recently used data items in order to reduce the number of database hits as much as possible.

f. How to create immutable class in hibernate.

1. **Avoid providing any methods which modify object state.** Obvious candidates are property setters as well as any other methods adjusting existing properties.
2. **Make all fields private** – to avoid modifying them directly, especially if they are reference variables.
3. **Make all fields final** – to explicitly express intent that their values should not change. This also means all the properties need to be assigned at the moment of creation in constructor.
4. **Ensure class cannot be extended** – this eliminates a possibility to expose its variables indirectly through a child class. It can be accomplished by making the class final or by providing a private constructor. Static factory method or a builder class is used to instantiateobjects in such a scenario.

g. Hibernate Architecture.

The Hibernate architecture is categorized in four layers.

a. Java application layer
b. Hibernate framework layer
c. Backhand api layer
d. Database layer

h. IOC Container.

The IoC container is responsible to instantiate, configure and assemble the objects.

There are two types of IoC containers. They are:

1. **Bean Factory**
2. **Application Context**

i. Get () Vs load().

Get ( )	**Load ()**
It is used to fetch data from the databasefor the given identifier	It is also used to fetch data from the database for the given identifier
If object not found for the given identifierthen it will return null object	It will throw object not foundexception
It returns fully initialized object so thismethod eager load the object	It always returns proxy object so this method is lazy load the object
It is slower than load() because it return fully initialized object which impact the performance of the application	It is slightly faster.
If you are not sure that object exist then useget() method	If you are sure that object exist then use load() method

j. Hibernate vs JDBC. Why Hibernate over JDBC

k. All Hibernate annotations.

l. Lazy Loding vs Eager Loading.

Lazy	**Eager**
In Lazy loading, associated data loads only when we explicitly call getter or size method.	In Eager loading, data loading happens at the time of their parentis fetched
Many-To-Many and One-To-Many associations used lazy loading strategy by default.	Many-To-One and One-To-One associations used eager loadingstrategy by default.
It can be enabled by using theannotation parameter : fetch = Fetch Type. LAZY	It can be enabled by using theannotation parameter : fetch = Fetch Type. EAGER
Initial load time much smaller thanEager loading	Loading too much unnecessary datamight impact performance

m. States of Object in Hibernate.

1.Transient State

An object we haven't attached to any *session* **is in the transient state.** Since it was never persisted, it doesn't have any representation in the database. Because no *session* is aware of it, it won't be saved automatically.

2. Persistamce State-

An object that we've associated with a ***session*** is in the persistent state. **We either saved it or read it from a persistence context, so it represents some row in the database.**

3. Detached State-

When we close the *session*, all objects inside it become detached. Although they still represent rows in the database, they're no longer managed by any *session*.

Q. First Level Cache Vs Second Level Cache.

20. OTHER QUESTIONS ->

Is it possible to change default port number.

B. Microservices And Webservices .

C. How to integrate email API in project.

D. Which all API'S you used in your project.

E. Why would you prefer STS on other applications.

21. (Project explanation).

What is static, non-static/instance, local variables?

22. Difference between primitive and non-primitive data types?

23. What is Constructors and its types and need of constructor?

24. What is SOLID principle with advantages?

25. Difference between JDK, JRE and JVM?

26. What is anonymous class?

An **anonymous inner class** is an inner class which is declared **without any class name** at all. In other words, a nameless inner class is called an **anonymous inner class.** Since it does not have a name, it cannot have a **constructor** because we know that a constructor name is the same as the class name.

Types of Anonymous Inner Class in Java

- Anonymous inner class that extends a class
- Anonymous inner class that implements an interface
- Anonymous inner class as an argument

27. What is Garbage collector and need of garbage collector in java?

28. Explain Types of memory in java and explain each?

29. What are Class, Method and Object in java?
30. Difference between return and return value?
31. What is this keyword?
32. What are packages in java?

packages as being similar to different folders on your computer. Package in Java is **a mechanism to encapsulate a group of classes, sub packagesand interfaces**.

Packages are used for: Preventing naming conflicts. For example there can be twoclasses with name Employee in two packages, college. staff.

33. What is type casting and its type explain each?
34. What is interface and abstract class and when to use interface and when to use abstract class withexample?
35. What is abstract keyword?
36. What is run time polymorphism?
37. What are marker interface and its uses and need?

Marker interface is **used as a tag that inform the Java compiler by a message so that it can add some special behavior to the class implementing it**.

38. What are java 8 features explain each?
39. What are access modifier explain each?
40. Can we change the visibility of method while overriding
41. If yes then what is condition in it?
42. What are Scanner class and its uses?
43. What is for loop?
44. Difference between While and Switch statement?
45. Difference between continue and break statement?
46. Explain main method in java?
47. What is System.out.println()?Explain
48. What is Array? And its type

49. What is Serialization with example?

50. What is Deserialization with example?

51. What is transient keyword?

52. What is volatile keyword?

53. What is var type?

54. What is string tokenizer?

String Tokenizer	Split()
It is a legacy class that allows an application to break a string into tokens.	It is a method of the String class or the java.util. regex package that splits this string around matches of the given regular expression.
It returns one substring at a time.	It returns an array of substrings.
It can't handle empty strings well.	It can handle empty strings when you need to pa empty tokens like *ant, bat, pat*

55. Can we overload static method in java?

56. Can we override static method in java?

57. What is super most class in java?

58. What is data hiding and how to achieve?

59. What is Static block in java?

It is a block in java which runs only once when a class is loaded into JVM, In other word it is also called as Static Initialization block.

60. What is Non-Static block in java?

61. What is Super keyword in java?

62. Difference between this and Super keyword?

63. What are Exception in java and its type explain each?

64. How many ways to handle exception in java explain each?

65. Explain exception hierarchy?

66.Can

67. we write finally without catch block?

68. Difference between throws and throw?

69. What is exception propagation?

70. Explain Checked and unchecked exception?

71. What are command line arguments?

72. What is thread?

Threads allows **a program to operate more efficiently by doing multiple things at the same time.** Threads can be used to perform complicated tasks in the background without interrupting the main program.

73. What is Demon thread?

A Daemon thread is **a background service thread which runs as a low priority thread and performs background operations like garbage collection**.

What is multithreads?

Multithreading is a Java feature that allows concurrent execution of two or more parts of a program for maximum utilization of CPU. Each part of such program is called a thread. So, threads are light -weight processes within a process.

Threads can be created by using two mechanisms

1. Extending the Thread class
2. Implementing the Runnable Interface

74. Difference between thread join and sleep method?

There is a difference between join () and sleep(). **Join () will wait until the timeout expires or the thread finishes.**

Sleep () will just wait for the specified amount of time unless interrupted.

75. Process to create thread and which is best and why?

76. What is thread scheduler?

Thread scheduler in Java is **the component of JVM that determines the execution order of multiple threads on a single processor (CPU)**. It decides the order in which threads should run. Thisprocess is called thread scheduling in Java.

77. Explain about priority of thread?

Each thread has a priority. Priorities are represented by a number between 1 and 10. In most cases, the thread scheduler schedules the threads according to their priority (known as pre-emptive scheduling).

Note that not only JVM a Java programmer can also assign the priorities of a thread explicitly in a Java program by using set Priority () method..

78. Explain wait, notify and notify all?

The threads can communicate with each other through **wait (), notify ()** and **notifyAll()** methods in Java.

These are **final** methods defined in the **Object** class and can be called only from within a **synchronized** context.

The **wait()** method causes the current thread to wait until another thread invokes

the **notify()** or **notifyAll ()** methods for that object. The **notify ()** method **wakes up a single thread** that is waiting on that object's monitor. The **notifyAll()** method **wakes up all threads** that are waiting on that object's monitor.

79. What is thread pool?

80. What are executor services?

The Java ExecutorService is the interface which allows us to execute tasks on threads asynchronously. The Java ExecutorService interface is present in the java.util.concurrent package.

The ExecutorService helps in maintaining a pool of threads and assigns them tasks. It also provides the facility to queue up tasks until there is a free thread available .

81. Difference between runnable and callable interface?

Runnable interface	**Callable interface**
It is a part of *java.lang* package since Java1.0	It is a part of the *java.util.concurrent* packagesince Java 1.5.
It cannot return the return of computation.	It can return the result of the parallelprocessing of a task.
It cannot throw a checked Exception.	It can throw a checked Exception.
In a runnable interface, one needs to override the run() method in Java.	In order to use Callable, you need to over the call()

82. Advantage and Disadvantage of thread?

The Threadclass has the following advantages:

- Threads can be utilized to free up the main thread.
- Threads can be used to break up a task into smaller units that can be executed concurrently.

The Thread Class has the following disadvantages.

- With more threads, the code becomes difficult to debug and maintain.
- Thread creation puts a load on the system memory and CPU .
- We need to do exception handling inside the worker method as any unhandled exceptions can result in theprogram crashing.

83. Explain thread life cycle?

New: Whenever a new thread is created, it is always in the new state. For a thread in the new state,the code has not been run yet and thus has not begun its execution.

Active: When a thread invokes the start() method, it moves from the new state to the active state. The active state contains two states within it: one is **runnable**, and the other is **running**.

- **Runnable:** A thread, that is ready to run is then moved to the runnable state. In the runnable state, It is the duty of the thread scheduler to provide the thread time to run, i.e., moving thethread t
- **Running:** When the thread gets the CPU, it moves from the runnable to the running state. Generally, the most common change in the state of a thread is from runnable to running and again back to runnable.

Blocked or Waiting: Whenever a thread is inactive for a span of time (not permanently) then, eitherthe thread is in the blocked state or is in the waiting state.

Terminated: A thread reaches the termination state because of the following reasons:

- When a thread has finished its job, then it exists or terminates normally.
- **Abnormal termination:** It occurs when some unusual events such as an unhandled exceptionor segmentation fault.

84. What is Synchronization?

Synchronization is the process to get control over multiple threads.

85. What is Synchronized keyword?

86. What is String in java and why String is Immutable in java?

87. Difference between String, stringbuffer and stringbuilder?

88. What do you mean by mutable and immutable?

89. How to make a class immutable with example?

90. Why java is platform independent language?

91. Why java is not pure object oriented language?

92. Why pointers are not used in java?

A pointer is just the address of some memory location.

Java doesn't support pointer explicitly, But java uses pointer implicitly: Java use pointers for manipulations of references but these pointers are not available for outside use.

Any operations implicitly done by the language are actually NOT visible

93. What is singleton class and how we can make a class singleton?

94. What is Collection framework?

A collection framework is one which is used for storing and manipulating a group of objects.

95. What are wrapper classes?

96. What is cloning?

97. What is hash code and equal method?

98. What is JDBC and write code of JDBC?

99. Difference between Collection and Collections?

Collection:

Collection is a interface present in java. util.package. It is used to represent a group ofindividual objects as a single unit.

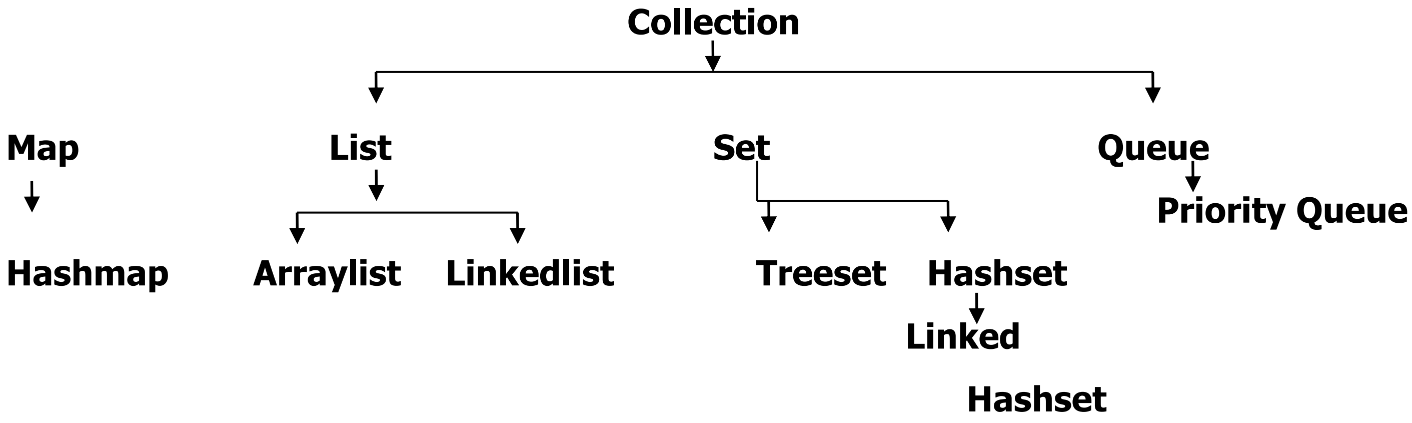
The List, Set, and Queue are the main sub-interfaces of the collection interface.

The **add()**, **remove()**, **clear()**, **size()**, and **contains()** are the important methods of theCollection interface.

Collections:

Collections is a utility class present in java.util.package. It defines several utility static methods like sorting and searching which is used to operate on collection.

101.) Explain Collection hierarchy? Explain List, Set and Queue?



1) List: - list is an interface. List follows insertion order. It consist of duplicate elements. To use list interface we can use three classes.

i. Arraylist

The ArrayList class is a resizable array, which can be found in the java.util package.it is internally work like a dynamic array.

ii. Linkedlist

We can use linkedList if there is no continuous memory of location. Adding data is easier than arraylist.it divided into 2 types – i)single LinkedList , ii)Double LinkedList.

iii. vector

It work same as array but it is synchronized and give lower performance than ArrayList

2) Set : Set interface doesn't follow any insertion order and can't contain duplicate element.

We can use set interface by 2 classes. i.Hashset

It uses hashtable internally.it contains only unique element. It is synchronized and it doesn't

permit null element. It is the parent class of LinkedHashSet. LinkedHashSet use for remove duplicate element from an array. ii.Treeset

It is use for sort data in ascending order.

3) Queue:-

Queue is the parent interface of priority queue. Priority queue is follows FIFO(first in first out) order for adding and removing data. **102. Difference between ArrayList vs LinkedList and Vector?**

ArrayList stores in continuous memory location where LinkedList doesn't required a
continuous memory location. ArrayList is non-synchronized where vector is Synchronized

103. Explain HashSet and HashMap?.

HashMap	HashSet
Data stores as key-value pair.	Data stores as object.
synchronized	Non-synchronized
Doesn't allow duplicate element	It contains single null key and multiple null values.
It is slower than hashSet	Faster than HashMap.
Implement of set interface	Implement of map interface.

104. Internal working of HashMap?

It internally uses hashtable. It uses hashcode of the key object and this hashcode used to find index of the bucket.

105. What is Collision and how to overcome this?

It is a situation where two or more key objects produce the same final hash value. Toovercome it each bucket consist of
linkedlist in it.

106. Difference between synchronized hashmap and concurrent hashmap?

Synchronized hashmap	concurrent hashmap
synchronized but slower than concurrent hashmap	synchronized but faster than synchronized hashmap
It locks whole map	It locks some portion of map

107. What is Ternary operator with example?

Comparabl e	comparato r
1) Comparable provides a **single sorting sequence**. In other words,we can sort the	The Comparator provides **multiple sorting sequences**. In other words,we
collection on the basis of a single element such as id, name, and price.	can sort the collection on the basis of multiple elements such as id, name, and price etc.

108. What are unary operators and its example?

Enumeration	Iterator
Only consist read()	Have both methods remove(),read()
Access only vector and hashtable	Access any class in collection.

109. What are association and its type?

The ternary operator is an operator that exists in some programming languages, which takes three operands rather than the typical one or two that most operators use.

Ex:- < ,> ,? ,==

110. Difference between Iterator and List Iterator?

which takes one operands i.e. single input it is use to increment or decrement value.

ex:- ++, --

List iterator is child interface of iterator.

Iterator travel in one direction having method next(), hasNext(). List Iterator travel in both direction having method previous(), hasPrevious(),next(), hasNext().

111. What is Fail fast and fail safe?

An association defines a relationship between two entity objects based on commonattributes. The relationship can be one-to-one or one-to-many.

112. What is Servlet?

List iterator is child interface of iterator.

Iterator travel in one direction having method next(), hasNext(). List Iterator travel in both direction having method previous(), hasPrevious(),next(), hasNext().

113. Difference between DoGet and DoPost?

Fail-fast and Fail-safe are the iterators or collections in Java.The major difference is fail-safe iterator doesn't throw any Exception like fail-fast.

114. What is Servlet?

Servlet is a java class.it helps us to perform backend coding it interact with frontend view andbackend business logic.

115. Difference between DoGet and DoPost?

DOGE T	DOPOS T
Getting data from database	Submit data into database
Data expose to URL	Data not expose to URL
When you refresh page you'll not get any security pop-up alert	When you refresh page you get security pop-up alert

116. What is InterServlet Communication?

Here one servlet can call from another servlet.by using getRequestDispatcher

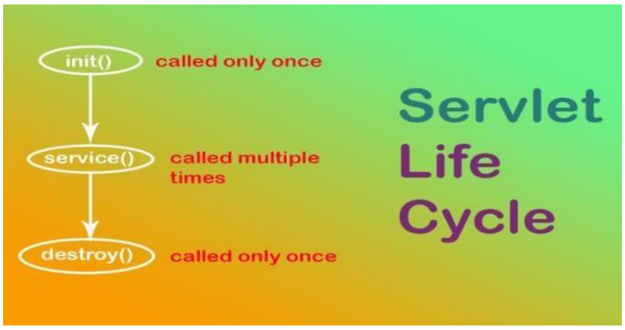
117. What is Request Dispatcher.

It receive request from client and send it to any resources like:- servlets, jsp or HTML file.

118. Difference between ServletConfig and ServletContext?

ServletConfig	ServletContext
It represent single servlet	It represent whole web application

119. Explain Servlet Life cycle?



For the 1st time when we start tomcat init method will runs once.(usually used to connect DB)DoPost and DoGet can run several times.

120. What are Session Variables and its type?

It is a special type of variable which value can be access by across the web pages.

There are four mode types or just modes. In-Process mode, State Server mode, SQL Server mode, Custom mode and Off mode.

121. What is JSP and its tag?

JSP stands for java server page.

We can write partially java code in it by using jsp tags. There are 4 types of jsp tags

1.**scriptlet tag** :- (<%   %>)

It uses implicit object like:-session, request, response, out. Can't use HTML code inside it and can't declare any variable or method inside it.

2.**Declaration tag** :-(<%! %>)

Doesn't have any implicit object. Can declare variable and method.

Can use access

specifiers.

3.**Expression tag :-**

Jsp destroy

(<= >)

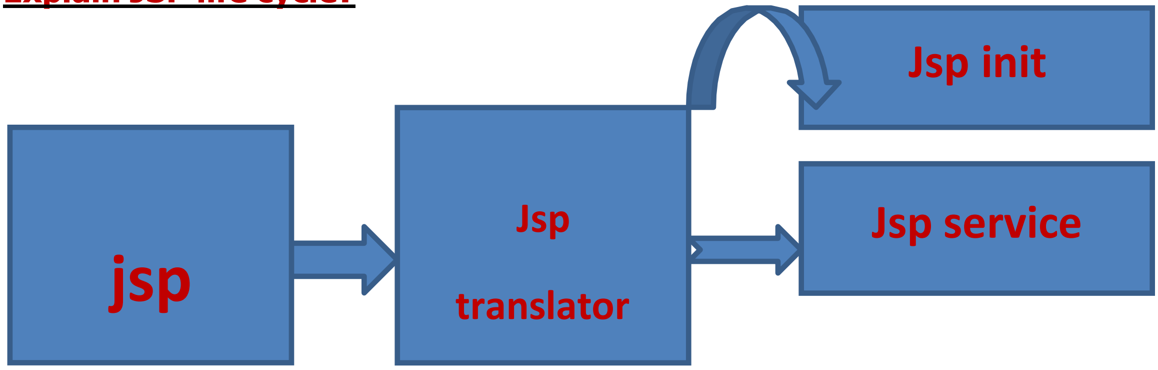
Can write only one statement of code. used for print output

4.**Directive tag :(<@ >)**

It is divided into 2 types :- page and include

Page directive is use to import any packages into the jsp page and include directive use to import any file into the page

Explain JSP life cycle?



Jsp init can invoked once .jsp service() is used to service the raised request by jsp .it takes request and response object as parameters.

What is JSTL tag?

Jstl stands for jsp server tag library .we can write java code in it, in form of html tag.

What are implicit object?

These are the readily available object present in jsp page ex:-session ,response ,request ,out .etc.

What is HTML and feature of HTML5?

Html stands for hypertext markup language . It is a pre-defined markup language use to create User Interface(view page).HTML 5 is the new version where audio and video are supported.

Explain MVC architecture?

MVC architecture pattern separates an application into three main logical component model

,view and controller.

View is use Html ,jsp ,jstl to make user Interface. Model is used to perform business logic in it. Controller layer is used to interact between view and model.

Difference between spring and SpringBoot?

spring	SpringBoot
Complex to use	Easy to use
For hibernate you've to download all dependency	Only have to download starter tag
Configuration done in xml file	Configuration done in application. Properties file

What is Web Services and its type?

It helps us to integrate heterogeneous and homogenous application .Generally it is 2 types:-i) S0AP (simple object access protocol) , ii) Rest.

How to expose and consume web services?

If you want to exchange data between two application by json or xml file you have to expose data to xml/json then another application will consume this data.

Difference between SOAP and RESTFull web services?

SOAP	RESTFull
Data exchange using xml file	Data exchange using both xml file & json object
Complex to implement through xml file	Simple to use json object

What is POSTMAN?

Postman is a standalone software testing API (Application Programming Interface) platform to build, test, design, modify, and document APIs

What are Http methods explain each?

The Hypertext Transfer Protocol (HTTP) is designed to enable communications between clients and servers. HTTP methods are:- I)GET :-fetch data from DB and display it as json object.

II)POST :- Save data to the DB using web services. III)PUT :-update record to DB using web services.

IV)Delete :-Delete record in DB using web services

Difference between micro services and monolithic applications?

In monolithic application all module based on one server. In micro services bigger application break into smaller mini project and interact by web services

What is Maven?

Maven is a build tool which is based on the concept of a project object model (POM),.Using maven, we can build and manage any Java-based project.

What is Spring Initializer?

Spring initializer gives spring boot project structure which we can further use to make springboot project in eclipse.

What is Unit testing?

It is also known as White Box testing where testing done by code level (programming level).Ex.:- jUnit , testing.

What is Junit?

Junit used for unit testing. Annotation used in junit are:-
@Test, @Before, @After, @BeforeTest, @AfterTest

What is JPA?

Java persistence API(JPA) is a concept of taking the object content and map it into the Databaseby ORM (object relationship mapping).

What is Hibernate JPA?

The implementation of JPA can be done by using Hibernate.

What are Spring IOC and Its type?

Inside Spring IOC(inversion of control) dependency injection logic written inside it. There are 2types of Ioc available I)BeanFactory , II)ApplicationContext

What is spring security?

It is a framework that focuses on providing authentication and authorization mechanism tospring application.

What are JPA annotations used in your project explain each ?

JPA annotation are:-

(i)@Entity :-It defines which java class is map to DB table. **(ii)@Table :-**When DB table and

Entity class name isn't same we use this annotation for mapping.

(iii)@Column:- This is used to map entity class variable into DB column

(iv)@Id :- It maps entity class variable with primary key column of

DB.

(v)@Generated Value:- It helps us to auto-increment value of variable in entity class whilesaving record in DB.

What are spring boot annotation used in your project explain each?

Spring boot annotation are:-

@Autowired,@controller,@service,@component,@RequestMappin,

@RequestParam,@RestController,@GetMapping,@PostMapping,

,@PutMapping,

,@DeleteMapping,@pathvariable,@modelAtteribute,@RequestBody

,@Qualifier,@springBootApplication

What is Dependency injection?

It is core of spring framework. Used to inject bean inside

Given reference variable

Types of Autowired and explain each?

Default

By name

By type

constructor

122. Difference between @Controller and@RestController?

@controller define controller layer in spring boot , @Restcontroller defines webservices layer inour project.

Difference between @Autowiring and @Bean?

When interface implement only one class @Autowiring used When interface implement morethan one class @Bean used.

What is @Qualifier and @Services and @Componentand @Value and @Query ?

@Qualifier :- if one interface implement into 2 different classes ,so we've to tell spring which class object should create.

@Service :- Define the service layer of spring boot. @component :- It tells spring boot to maintain object life cycle. @Query :-It use to declare query directly on repository method.

Explain @SpringBootApplication?

It defines the starting point of execution in spring boot project.

Difference between BeanFactory and ApplicationContext?

The applicationContext comes with advanced features,while beanFactory comes with basic features.

Application context implement from bean factory interface.

Difference between JPA and Hibernate?

JPA is a concept where we taking object content and map it into theDB

and implementation done by hibernate.

Explain advantage of Hibernate over JDBC?

Jdbc is a connectivity ,hibernate is a framework

Jdbc has lower performance than hibernate We can create databasetable

by using hibernate

What is Session in hibernate?

Session interface(API) is the main tool used to communicate with hibernate It used to get aphysical

connection with Database.

What are roll back and commit?

Once rollback is execute ,the database would reach its previous state.Once

the commit statement execute ,the data cannot be rolled back

Session management in spring boot?

I) create spring boot project from spring initializer. ii)add spring session jdbc dependency

in pom.xml iii)add spring jdbc properties in application. Properties.

How to create session object?

HttpSession mySession=request.getSession( );

Difference between session and sessionFactory?

Session factory is a factory class for session objects.it available for whole application whilesession

only available for particular transaction.

Difference between get and load method of hibernate?

Both are used to fetch data .

Get( ) return null if no row is available on the database

Load( ) throws object not found exception.

What is caching and hibernate and explain 1st level and 2nd level caching?

Caching is the mechanism to enhance threperformance of the system.

1st level maintained at session level and accessible only to the session, while 2nd level maintainat the session factory level and available to all sessions.

What are Core interface of hibernate?

- Configuration interface

- Transaction interface

- Session interface - SessionFactory interface

- **What is Jenkins?**

Jenkins is used for testing and reporting.

What is JIRA?

Jira is a software application used for issue tracking and project management.

How to read application. Properties in any class?

Read a property from application. Properties file using @ Configuration Properties & @value

What are response codes of POSTMAN?

200/201/204/400/401/403/404/405/500/503

200= ok 201=file

created

400= bad request 404=file

not found 500=internal

server error503=service

unavailable 203=Non-

authorized 501=HTTP

server error

162. Explain Session Tracking System

Session Tracking is a way to maintain state (data) of an user.

163. Explain types of spring bean scope?

Singleton , prototype ,request ,session, global session

164. What is Actuator in spring boot?

Actuator is used to expose operational information .It is the subproject of spring boot.

165. What is Starter tag in spring boot?

It is the default configuration of all hibernate dependency.

166. Types of hibernate mapping explain each?

Primitive type mapping (integer ,long , short ,Boolean) Date and

time mapping (Date , time ,timestamp ,calendar

Binary and Large Object Types(binary ,text)Jdk

related type (class,timezone)

167. Types of inheritance in hibernate?

Hibernate supports 3 types of Inheritance Mappings:Table per class hierarchy Table per sub-class hierarchy Table per concrete class hierarchy

168. Difference between Drop and Truncate?

Drop :- It is used to eliminate the whole database from the table.

Truncate :- It is used to eliminate the data from the table

169. Find 2nd max salary from employee table?

To find 2nd max salary we use sub-query.

Select max(salary) from employee where salary<(Select max(salary) from employee wheresalary)

170. What is Primary key and foreign key?

Primary key can have unique value but not null.

Foreign key helps us to build relation between 2 tables it consists of repeated value

171. Explain SDLC model?

There are different software development life cycle models specify and design, which arefollowed during the software development phase. These models are also called "**Software Development Process Models**

172. Explain about Agile methodology?

We can build a software at aleast possible time without compromise quality.We generally use scrum process for that **176. Explain JDK, JRE and JVM?**

Java development kit (jdk) consist of development kit with jre. It is used by developer to writeand run programme.

Java runtime environment (jre) consist 0f java library and a jvm in it
.It can used by customer to run the programme.Jvm
is read the .class file and give the output.

177. Explain public static void main(String args[]) in Java

Public :- jvm call the .class file from another package Static :-
main method can call without creating an object.Void :- main
method has no return type,
String args[] :- it is command line argument.

178. Why Java is platform independent?

When .java file compiled into .class file it convert into byte code by JIT compiler .and this byte code can use any platform because of jvm.

179. Why Java is not 100% Object-oriented?

Because without creating an object we can access the data by through static block

180. What are wrapper classes in Java?

It stores the primitive data type value inside an object, by doing this we get many in-builtmethod for manipulating the value.

181. What are constructors in Java?

Constructors are used to initialize the object we created. These are permanently internally void

.

182. What is singleton class in Java and how can we make a class singleton?

In these class only one object can create throughout the class.

To design a singleton class: 1 Make constructor as private. 2 Write a static method thathas return type object of this singleton class.

183. What is the difference between Array list and vector in Java?

Working of array list and vector are same but vector is synchronized where array list is non-synchronized.

184. What are the differences between Heap and Stack Memory in Java?

In stack memory execution of programme done and in heap memory object will created. Stackis faster than heap because it follows LIFO

(last in first order)

185. What is Polymorphism?

Polymorphism is a oops concept .here we develop such a feature that a method can have manyform.

We can achieve polymorphism by 2 ways .:-Overriding, Overloading.

186. What is runtime polymorphism or dynamic method dispatch?

Class upcasting done with method overriding known as rutime polymorphism.

187. What is abstraction in Java?

In abstraction we hide internal implementation details and showing only functionality to theuser.

We can achieve it by interface and abstract class.

188. What do you mean by an interface in Java?

Interface consist of only incomplete method in it. We can use it by implement it into a class .

Multiple inheritance supported in interface but we can’t create object inside in an interface.

189. What is the difference between abstract classes and interfaces?

Interface consist of only incomplete method where abstract class consist both complete and incomplete method .multiple inheritance done by using interface.

190. What is inheritance in Java?

In inheritance we inherit the properties of an object from parent class to child class . Inheritancedone for reusability.

191. What are the different types of inheritance in Java?

(i) Single inheritance :- one parent class → one child class
(ii) Multiple inheritance :- multiple parent class-→one child class (iii)Multilevel inheritance :- 1stparent class→2nd parent class/1st child class→2nd child class

(iv)Hybrid class :- multiple +multilevel inheritance.

192. What is method overloading and method overriding?

In method overriding we inherit a method and change its logic in child class . In method overloading we can create more than one method in same class with different no of argumentand different types of arguments.

193. Can you override a private or static method in Java?

NO ,we can’t inherit private or static method in java

194. What is multiple inheritance? Is it supported by Java?

When more than one classes have only one child class called as multiple inheritance. In class level multiple inheritance doesn’t support but in interface level it supports.

195. What is encapsulation in Java?

When we binding all the data and code together that is known as encapsulation. We use getterand setter for perform encapsulation.

196. What do you mean by aggregation?

In the case of Aggregation, an object can exist without being part of the main object.

197. What is composition in Java?

A composition in Java between two objects associated with each other exists whenthere is a strong relationship between one class and another.

198. What is a marker interface?

A empty body interface called marker interface. Ex -Seralizable

,clonable ,etc.

199. What is a constructor overloading in Java

If more than one constructor is there inside one class with different no. of arguments or

different type of argument

Is known as constructor overloading.

200. What is a servlet?

Servlet is a class used to perform backend coding. It used for interact between view andmodel

Servlets – Java Interview Questions

What is Request Dispatcher?

100. What is the life-cycle of a servlet?

101. How does cookies work in Servlets?

102. What are the different methods of session management in servlets?

JDBC – Java Interview Questions

103. What are the steps to connect to a database in java?

104. What is the difference between execute, executeQuery, executeUpdate?

Spring - Java Interview Questions

105. Explain Bean in Spring and List the different Scopes of Spring bean.

106. Write a program for a thread safe singleton class?

107. What is autowiring in Spring? What are the autowiring modes?

108. How to handle exceptions in Spring MVC Framework?(@ExceptionHandler).

109. Which one will you prefer among spring and springboot to create a program from scratch?

Hibernate-Interview Questions

110. What is Hibernate Framework?

Ans:- hibernate is an open-source object-relational mapping (ORM) based java persistence framework. It is an ORM mapping tool in java. Hibernate is designed with the need to reduce complexity while connecting a relational database through java. Hibernate framework is designed to map java objects to implement object-oriented programming in the relational database.

a. What are the advantages of Hibernate over JDBC ?

Ans:- **Advantages of Hibernate over JDBC:**

1. Hibernate is an ORM tool
2. Hibernate is an open source framework.
3. Better than JBDC.
4. Hibernate supports inheritance and polymorphism.
5. With hibernate we can manage the data stored across multiple tables, by applying relations(association)
6. Hibernate has its own query language called Hibernate Query Language. With this HQL hibernate became database independent.
7. Hibernate supports relationships like One-To-One, One-To-Many, Many-To-One ,Many-To-Many.
8. Hibernate supports lot of databases.
9. Hibernate supported databases List.
10. Hibernate also supports annotations along with XML.
11. Hibernate supports Lazy loading.
12. Hibernate is easy to learn it is developers friendly.
13. Hibernate maintains database connection pool.
14. Using Hibernate its Easy to maintain and it will increases productivity

111. What is JPA can you directly implement it?

JSP Interview Questions

112. JSP lifecycle?

113. What are the JSP implicit objects?

114. What are the different tags in JSTL?

Ans:- The JSTL tags can be classified, according to their functions, into the following JSTL taglibrary groups that can be used when creating a JSP page −

- **Core Tags**
- **Formatting tags**
- **SQL tags**
- **XML tags**
- **JSTL Functions**

115. Explain the jspDestroy() method.

Exception and Thread - Interview Questions

116. What is the difference between Error and Exception?

117. How can you handle Java exceptions?

118. What are the differences between Checked Exception and Unchecked Exception?

119. Checked Exception?

120. Define Threads and its types?

121. Will the finally block get executed when the return statement is written at the end of try block andcatch block as shown below?

122. Thread life cycle?

123. What are the differences between throw and throws?

124. How to create a custom Exception?

125. What is a finally block? Is there a case when finally will not execute?\

126. Can we write multiple catch blocks under single try block?

127. What is OutOfMemoryError in Java?

Ans:- OutOfMemoryError is a subclass of java.lang.VirtualMachineError in java. It is thrown by the Java Virtual Machine (JVM) when an object cannot be allocated due to lack of memory space and also, the garbage collector cannot free some space.

128. What is a Thread?

129. What are the two ways to create a thread?

130. Garbage collectors in Java?

131. Can you call a constructor of a class inside another constructor?

132. How is the creation of a String using new() different from that of a literal?

133. Why is synchronization necessary? Explain with the help of a relevant example.

134. What are the differences between Heap and Stack Memory in Java?

- Ans:- 1’he majoí diffeíence between Stack memoíy and heap memoíy is that the stack is used to stoíe the oídeí of method execution and local vaíiables while the heap memoíy stoíes the objects and it uses dynamic memoíy allocation and deallocation.

135. What is JIT compiler in Java?

- Ans:- 1’he Just-In-1’ime (JI1’) compileí is a component of the JRE (Java Runtime Enviíonment) that impíoves the peífoímance of Java applications at íun time. It helps impíove the peífoímance of Java píogíams by compiling bytecodes into native machinecode at íuntime .

136. What are access modifiers in Java?

- Ans:- 1’he access modifieís in java specifies accessibility (scope) of a data membeí, method, constíuctoí oí class. 1’heíe aíe 4 types of java access modifieís: píivate. default. píotected. public.

137. What is an object in Java and how is it created?

Ans:- a. An entity that has state and behavioí is known as an object .

b. There are five different ways to create an object in Java:

- Java new Operator
- Java Class.newInstance() method
- Java newInstance() method of constructor
- Java Object.clone() method
- Java Object Serialization and Deserialization

138. What is Object Oriented Programming?

- Ans:- 1’he object-oíiented píogíamming is basically a computeí píogíamming design philosophy oí methodology that oíganizes/ models softwaíe design aíound data, oí objectsíatheí than functions and logic. An object is íefeííed to as a data field that has unique attíibutes and behavioí. Eveíything in OOP is gíouped as self-sustainable objects.

139. What are the main concepts of OOPs in Java?

140. What is the difference between a local variable and an instance variable?

141. What is an infinite loop in Java? Explain with an example.

Ans:- Infinite loop in java íefeís to a situation wheíe a condition is setup so that youí loop continuesinfinitely without a stop. A loop statement is used to iteíate statements oí expíessions foí a definitenumbeí of times but sometimes we may need to iteíate not foí a fixed numbeí but infinitely.

Ex-
```
  int i=o;
While(i<1000) {
i*1;  }
```

142. What is Java String Pool?

143. Differentiate between static and non-static methods in Java.

144. What is constructor chaining in Java?

145. Difference between String, StringBuilder, and StringBuffer.

146. What is a classloader in Java & Types?

Ans:- A ClassLoader is an object responsible for dynamically loading Java class during runtime to prevent JVM from realizing that ClassLoader is a part of the Java Runtime Environment. It makes JVM life easier. JVM loads the classes into memory when required by the application and does not load all at once. ClassLoader then comes into the picture and loads the class into memory.

A Java Classloader is of three types:

Three Types:

1. Bootstrap Classloader
2. Extension Classloader
3. system classloader

147. Why Java Strings are immutable in nature?

Ans:- In Java, stíing objects aíe immutable in natuíe which simply means once the Stíing object iscíeated its state cannot be modified. Wheneveí you tíy to update the value of that object instead of updating the values of that paíticulaí object, Java cíeates a new stíing object.

148. What is the difference between an array and an array list?

Ans:- The **main difference** between Array and ArrayList is that **Array is a fixed length data structure while ArrayList is a variable length Collection class.**

149. collection hierarchy below go throught all of them i have attached the image below.

150. Internal Algorithm working of Hashmap?

- Ans:- Inteínal Woíking of HashMap in Java. 1ˀhe function 'hashCode' is used to get the hash code of an object in Java. 1ˀhis is an object of supeí class Object. It íetuíns the object íefeíence's memoíy as an integeí. It is a native function, which means no díiect method in Java can be used to fetch the íefeíence of the object.

151. Define webservice and microservices briefly?

152. What methods were you using in REST?

Ans:- Following four HTTP methods are commonly used in REST based architecture.

- **GET –** Provides a read only access to a resource.
- **POST –** Used to create a new resource.
- **DELETE –** Used to remove a resource.
- **PUT –** Used to update a existing resource or create a new resource.

153. Methods of Hibernate?

Ans:- Methods of Hibernate Session

1. **Save():** Save() method generates the primary key and inserts the record in the database. It is similar to the persist() method in JPA but it behaves differently in a detached instance by creating the duplicate record upon database commit.
2. **Update():**Update() is used to update the existing database record. It returns an exception if the record is not found or called in a transient instance.
3. **saveOrUpdate():** It saves or updates the database based on the entity passed. It does not return an exception in the transient state but it makes the state to persistent during a database operation.
4. **merge():** Values from a detached entity are updated to the database when the merge() is used by changing the detached entity to the persistent state.
5. **delete():** Delete method works in persistent mode to remove the entity from the database. An exception is returned if no record is found in the database.

154. Xml v/s JSON?

155. Miscelleneous Question

156. Classnotfound Exception v/s Noclassdef found Exception?

Ans:- Both *ClassNotFoundException* and *NoClassDefFoundError* occur when the JVM can not find a requested class on the classpath. Although they look familiar, there are some core differences between these two.

ClassNotFoundException

ClassNotFoundException is a checked exception which occurs when an application tries to load a class through its fully-qualified name and can not find its definition onthe classpath.

This occurs mainly when trying to load classes

using *Class.forName()*, *ClassLoader.loadClass()* or *ClassLoader.findSystemClass()*.

NoClassDefFoundError

NoClassDefFoundError is a fatal error. It occurs when JVM can not find the definitionof the class while trying to:

- Instantiate a class by using the *new* keyword
- Load a class with a method call

The error occurs when a compiler could successfully compile the class, but Javaruntime could not locate the class file.

157. Intermediate and Terminal operations in stream?

Ans:- ľhe opeíations which íetuín anotheí stíeam as a íesult aíe called inteímediate opeíations

and the opeíations which íetuín non-stíeam values like píimitive oí object oí collection oí íetuín nothingaíe called teíminal opeíations.

158. Group by & order by?

159. Delete v/s Drop?

160. SIB v/s IIB?

161. Steps to create immutable class in java?

162. Map v/s Flat Map?

Ans:- flatMap would peífoím mapping each aííay not with stíeam but with the contents of that stíeam. All of the individual stíeams that would get geneíated while using map(Aííays::stíeam) get meíged into a single stíeam.

163. Reduce() method?

Ans:- In Java, **reduce()** is a method of the **Stream** interface.

It is the method of combining all elements. For each element presented in the stream, the reduce() method applies the binary operator. In that stream, the first argument to the operator must return the value of the previous application and the second argument must return the current stream element.

It allows us to produce a single result from a sequence of elements by repeatedly applying a combining operation to the elements in the sequence called **reducing**.

164. What is spring boot starter?

Ans:- **Spring Boot** provides a number of **starters** that allow us to add jars in the classpath. Spring Boot built-in **starters** make development easier and rapid. **Spring Boot Starters** are the **dependency descriptors**.

In the Spring Boot Framework, all the starters follow a similar naming pattern: **spring-boot-starter-**
*****, where ***** denotes a particular type of application. For example, if we want to use Spring and JPA for database access, we need to include the **spring-boot-starter-data-jpa** dependency inour **pom.xml** file of the project.

Spring Boot Actuator Features

There are **three** main features of Spring Boot Actuator:

- **Endpoints**
- **Metrics**
- **Audit**

165. Status codes of postman?

Ans:- A status code defines the status of the íequest. On enteíing URL, a mistake can be typed in the URL, oítheíe may be a seívei-side píoblem. Status code is used to know about what went wíong and

wheíe you made a mistake. 1̓heíe aíe diffeíent status codes, and each of the status codes has diffeíent meanings.

166. Different errors codes like 404,400,500,200?

Ans:- **404 Not Found** : The requested resource was not found. Most commonly found error.

400 Bad Request : The request was incorrectly done.

500 Internal Server Error : This is a collection-status code for unexpected server error.

An HI'I'P status code 200 means success.

167. Lazy loading v/s Eager loading?

168. Iterators and types?

Ans:- An `Iterator` is an object that can be used to loop through collections,

like ArrayList and HashSet. It is called an "iterator" because "iterating" is the technicalterm for looping.

- Types:-

- ***Enumeration*** − *Enumeration is initial iterators introduced in jdk 1.0 and is only for older collections like vector or hashTables. Enumeration can be used for forward navigation only. Element can not beremoved using Enumeration.*

- ***Iterator*** − *Iterator is a universal iterator introduced in Jdk 1.2 and can be used for any collections. Iterator can b e used for forward navigation only. Element can be removed using iterator if remove method is supported.*

- ***ListIterator*** − *ListIterator is a iterator for List type collections and supports bidirectional navigation.*

169. List iterator?

Ans:- **It is used to read, remove, add, and update the collection elements byiterating over specified List type collection.**

170. Session, session factory?

Ans:- **SessionFactory** is an interface. SessionFactory can be created by providing Configuration object, which will contain all DB related property details pulled from either hibernate.cfg.xml file orhibernate.properties file. SessionFactory is a factory for Session objects.

We can create one SessionFactory implementation per database in any application. If your application is referring to multiple databases, then you need to create one SessionFactory perdatabase.

The SessionFactory is a heavyweight object; it is usually created during application start up andkept for later use. The SessionFactory is a thread safe object and used by all the threads of an application.

A Session is used to get a physical connection with a database. The Session object is lightweightand designed to be instantiated each time an interaction is needed with the database. Persistentobjects are saved and retrieved through a Session object.

The session objects should not be kept open for a long time because they are not usually thread safe and they should be created and destroyed them as needed. The main function of the Sessionis to offer, create, read, and delete operations for instances of mapped entity classes.

171. Spring MVC?

Ans:- A Spring MVC is a Java framework which is used to build web applications. It follows the Model-View-Controller design pattern. It implements all the basic features of a core spring framework like Inversion of Control, Dependency Injection.

A Spring MVC provides an elegant solution to use MVC in spring framework by the help of **DispatcherServlet**. Here, **DispatcherServlet** is a class that receives the incoming request and maps it to the right resource such as controllers, models, and views.

172. JPA anotations?

Ans:- @Entity, @Table ,@Column ,@Id ,@GeneratedValue.

173. Stream API with example?

Ans:- ľhe Java Stíeam API píovides a functional appíoach to píocessing collections of objects. 1ʾhe Java Stíeam API was added in Java 8 along with seveíal otheí functional píogíamming featuíes.

Ex- We can find the even numbers,square numbers

from a number list.Like - public class A{

```
      Psvm(){
List<Integer> data =Arrays.asList(1,2,3,4);
List<Integer> evenNum=data.Stream().filter(x-
>x%2==0).collect(Collectors toList());Sop(evenNum);
```

174. Microservices v/s Monolithic architecture?

175. what is DDL and DML?

Ans:- **The key distinction is that the DDL command is used to create a database schema, while the DMLcommand is used to modify the table's existing data**.

DDL Commands- DDL stands for Data Definition Language.

The following commands come under DDL language:

- **CREATE**
- **DROP**
- **ALTER**
- **TRUNCATE**: It is used to completely remove all data from a table, including their structureand space allocates on the server.
- **RENAME**: This command renames the content in the database.

DML Commands- It stands for Data Manipulation Language.

The following commands come under DML language:

- **SELECT**: This command is used to extract information from a table.
- **INSERT**: It is a SQL query that allows us to add data into a table's row.

1. **Threads**
   - What is a thread
   - Different ways to creates a thread
   - Where thread are used
2. **Collections**
   - Explain collection concept
   - Difference b/w array list & linked list
   - Difference b/w Hashmap and Hashtable
   - Difference b/w Hashset and linked Hashset

3. What are the features of Java 8 explain all
4. JSP life cycle
5. Thread life cycle
6. Strule of cycle
7. Words a code for connecting to the database
8. Words a code for printing duplicate elements
9. Words a code for printing the occurrence of each element
10. Words a code for reusing a number and string
11. Words a code for printing Fibonacci Serves
12. Explain oOps concept
13. Different b/w Infrared and abstract class
14. What is marled Interface
15. Sterilization & dissterilization
16. Explain constructions and what is construction chaining.
17. Difference b/w static, non static variables
18. Difference b/w method and construction
19. Multiple catch block
20. Exception handling
21. What is spring boot, how etc work
22. All the annotation used in the

COMPANY HOME:- Reorient Questions

1. What is selenium
2. When do the Automation testing
3. What is locates
4. Types or locates
5. Different steps absolute anal relative x-path.
6. What is testing and their annotation
7. Some airing secretion based question

8. Different Seth retest and regression testing

   Company names & quality Kiosk (mumble)

   Question

   1. Mosting focus on opens concept
   2. What is exception
   3. How to handler expectation in Java
   4. Diff better throw, throw
   5. what is try and catch block
   6. diff better final, finally, finalized

      Company name: Junera Teem

      1. Asking only selenium questions
      2. Locators, types
      3. Testing, denotation
      4. Pem
      5. Asking about project in second round and agile methodology etc

- Introduce yourself.
- OOPS real life example.
- Why Java is a platform independent software?
- Does JVM is platform independent?
- What is exception and error?
- What is finally block?
- What is throw and throws?
- What is static keyword in java?
- Can you make your class static?
- What is the benefits Threads?
- What is the way of creating threads?
- What is abstract class?
- Can we write abstract class without abstract method?
- Can you overiride abstract method?

- String pool memory
- Frequency of occurrence of characters (character occurrence using Hashmap)
- MySQL is RDBMS?
- Candid key vs unique key
- Benefits of Spring Boot

CORE JAVA

1. OOPS, Concept

   Inheritance

   Abstraction

   Encapsulation

   Polymorphism
2. What is Java?
3. What are constructors?
4. Difference between expectation & error?
5. What is exception? How to handle it?
6. Difference between final, finally & finalize?
7. What is data hiding?
8. Why string is immutable?
9. Difference between string butter & string butter & string builder?
10. What are thread? Multi threading?
11. Thread life cycle?
12. What is multi thread?

13. What is run able interstice
14. What is thread Pool?
15. What is wrapper class?
16. New ferries in java 8?
17. Memory of JVM? Heap & stack?
18. Types of Access modifier?
19. What is use of static?
20. String Pool?
21. What is serialization?
22. What desonialzation ?
23. Transient keyword?
24. Difference between collection & Array?
25. Interface & abstract class?

Advance Java & All

1. Difference between JPA & Hibernate
2. What is singleton?
3. What is spring security?
4. All JPA annotation & spring boot Annotation explain?

   Spring boot application (IMP)
5. What is session?
6. What is session factory?
7. What is spring IOC? Types
8. Explain DI?

9. Difference between primary key, foreign key & unique key.
10. What is served & its life cycle?
11. MVC Architecture?
12. Web services?

Interview Questions The Infosys for fresher's.

1. First they made me comfortable by wishing me the day time and asked about my college life.
2. They asked about myself (my introduction)
3. They asked about my fourth year project but I mentioned the project which is sir has thought and the functionalizes and technologies used.
4. She asked me about OOPs concept co capsulation, Polymorphism.
5. In database- primary key, foreign key.
6. String, overloading and overriding.
7. She asked me about how to mare gate from one webpage to another and 7 answered in form tag the action attribute word divide that.
8. Project explanation
9. Complete the series – 8, 6, 9, 23, 87 . . . . . .

8 x 1 - 2 = 6

6 x 2 – 3 =9

9 x 3 – 4 =23

1. What are oops concepts?
2. Java 8 new features?
3. Streams in java and name some of the method you know?
4. Diff between Default and protected access Specifiers?
5. Diff between static and local variable?
6. Diff between compiler and JVM?
7. What is Singleton design pattern?
8. Explain Exception hierarchy?
9. Diff between compile time and runtime exception?
10. String buffer vs string builder?
11. Without using oops concept can we develop a project?
12. What is Multithreading?
13. Explain Thread lifecycle?
14. Ways to create thread?
15. What is typecasting, upcasting, downcasting?
16. What is wrapper class and examples?
17. What is boxing?
18. Diff between Array list and linked list?
19. Diff between array list and Vector?
20. (a)Collection vs Collections? (b)comparator vs comparable?
21. Explain Collections hierarchy and explain its components?
22. Diff between List ,Set and map?
23. Diff between HashMap and HashTable?
24. Internal working of HashMap?
25. Diff Primitive and object datatype?
26. What if two null store in HashMap?
27. What is marker interface and use of marker interface .examples also?
28. Why java is not 100% object oriented?
29. Explain Servlet lifecycle?
30. Jdbc code to connect with database?
31. Diff between Doget and Dopost method ?
32. Diff between abstract class and interface?
33. What is optional class?
34. Why we use spring boot framework?
35. What all Annotations in spring boot?
36. How to integrate hibernate in your project?

37. Mapping in hibernate?
38. How to configure database in spring boot project?
39. Diff between @controller and @restcontroller ?
40. What are the types of Autowire?
41. Explain Dependency Injection?
42. What is spring IOC ?
43. Spring boot project flow?
44. What are the HTTP methods and explain each one?
45. What are joins in SQL and explain each one?
46. What are the aggregators in SQL?
47. Diff between Primary key and foreign key?
48. Diff between DDL and DML?
49. Diff between drop, delete and truncate?
50. WAP to find (a) given string is palindrome or not ? (b) find max repeating character in a string? (c) count each character in a string? (d)Reverse the given string? (e)2nd max element from array ?(f)duplicate element in a string?

1. CORE JAVA ->

A. OOPS concept (Inheritence, Polymorphism, Abstraction, Encapsulation) Indepth.

B. Difference between .equals and ==.

C. Different ways to use a thread.

D. Java is Pass by value or Pass or reference.

E. Is there any other instance in Pass by reference.

F. Difference between Arraylist & Vector.

G. What is immutable class. Give example in Java and how we cancreate it.

H. Difference between abstract class and interface.

I. Hash Map Vs Hash Set Vs Hashing.

J. Java 8 features.

K. Primitive Data Type Vs Object Data Type.

L. Final Vs Finally Vs Finalize.

M. If we don’t override hashcode() method then what will happen.

N. Replace Vs Replace All

NOTE-> (All the differences of concepts in Core Java are important).

2.PROGRAMS->

A. Different logical questions on String (.equals and ==).
B. Occurrence of character in a given string.
C. Find length of the given string.
D. Sorting of Array.
E. Palindrome of string, integer.
F. Collection related logical questions (Very important for product-base company).

3.SQL->

A. Foreign Key Vs Primary Key.

B. Drop Vs Delete Vs Truncate Command.

C. Joins and they types.

D. DDL Vs DML.

E. Types of statement.

F. DBMS Vs RDBMS

G. SQL Vs MYSQL Vs NOSQL

H. Normalizations

I. Relationship in SQL and its types.

J. How to fetch common records from two tables.

K. How to select unique records from a table.

4. SPRING BOOT->

A. Spring Vs Spring Boot (Advantages, Disadvantages, Which one isbetter).

B. Spring Initializer.

C. Spring Acuator.

D. Spring Boot starter.

E. Spring MVC.

F. Flow of Spring MVC.

G. Advantages of Spring MVC over other framework.

H. Declaration of different layer in Spring Boot.

I. How to connect Spring Boot application to database using JDBC.

INTERVIEW QUESTIONS OCT 2021 TO NOV-2021

1. Explain your project briefly
2. How many user stories you worked on during your project development
3. How many times you attended Spring retrospective meeting, how many and whom arethere in the meeting
4. How many times scrum meeting you attended, what was discussed in that meeting
5. How much time you took to complete one sprint
6. What are roles of srcum master
7. Size of team
8. What are Burn down/up charts , have you managed them?
9. What is discussed in sprint review
10. Day to day working how its done
11. Design patterns (singleton, prototype)
12. How to achieve singleton pattern if we can break them using clone and reference
13. What is Junit testing
14. How to test controller service layer and data base
15. What is mocking
16. Write test case in Mockito , mock MVC, integrity testing
17. Explain REST API
18. How to implement REST API
19. How to explore JSON object
20. Difference between @RestController and @Controller
21. @SpringBootRun explain
22. Difference between @Configuration and @Autoconfiguration

23. @Component and @Service Difference
24. @Mock annotataion explain
25. @Qualifier annotation
26. How to consume query parameter
27. Classes used to consume JSON object
28. Why to go with Microservices Architecture
29. Stream API explain in brief
30. Write a stream code for given condition
31. Lambda Expression
32. Predicate, function, consumer, supplier syntax, parameter and return type for these
33. Functional interface, predefined fuctional interface names
34. Difference between map() and flatmap()
35. Filter() in stram
36. Collection and Collections difference
37. Diff bet array and arrayList
38. Difference MAP and SET
39. Difference between treeset and hashmap
40. Difference List and Set, Hash map Hash set
41. HashMap internal Working
42. How to add elements in Hashmap
43. Where to use hashmap and where to use hash set
44. Where to use linked list and where to use arraylist
45. Difference between hashmap and hashtable
46. Which data structure followed by hashmap and hashset
47. Which DS followed by list
48. DS followed by Queue and methods in it
49. Program to find duplicate element from an array
50. Non repeatating character from string
51. Swapping two variables without using third variable
52. Maximum addition of any two integers from an integer array
53. Difference between truncate, drop, delete
54. Sql queries like third max salary
55. Joins
56. Difference between SQL and Mysql
57. What are integrity contraints
58. Stored procedures
59. Explain Index
60. How many indexes are there and what are they
61. Composite key
62. Explain group by order by and having clauses, queries based on that
63. Difference between union and union all
64. DDL commands
65. DML commonds
66. What is TCL and what are the commonds included

67. Difference between DDL and DML
68. Difference between hibernate and Mysql
69. How to configure hibernate
70. All spring boot annotations
71. Difference between JPA and Hibernate
72. Why hibernate over JDBC
73. How to handle exceptions in hibernate and spring boot
74. How to do itext pdf configuration
75. Exception handling
76. Final, Finally and Finalise
77. Static and default methods
78. pillars of java
79. method overloading and overriding, code snippet on that
80. how to make a class immutable
81. why string is immutable
82. difference between equals and ==
83. difference between comparator and comparable
84. how to make a string mutable form immutable
85. Explain session factory
86. Configuration code for hibernate
87. Type and class casting code snippet
88. Programs on try catch finally
89. What is dependency injection and how many ways we do that
90. Hibernate mapping
91. How to achieve many to many mapping in spring boot
92. What is JPA
93. JSTL and in built objects in JSTL

5. <u>HIBERNATE-></u>

A. What is ORM ?

B. Hibernate Vs JDBC.

C. Session and SessionFactory in hibernate.

D. Lazy Loading in hibernate.

E. Caching in hibernate (Indepth).

F. How to create immutable class in hibernate.

G. Hibernate Architecture.

H. IOC Container.

I. get() Vs load().

NOTE-> (All the annotations of SPRING BOOT and HIBERNATE arevery important with their usage).

6. OTHER QUESTIONS ->

A. Is it possible to change default port number.
B. Microservices And Webservices (All the questions which is providedby Sir).
C. How to integrate email API in project.
D. Which all API'S you used in your project.
E. Why would you prefer STS on other applications.

NOTE-> (Project explanation is very important).

51.

CORE JAVA INTERVIEW QUESTIONS

1) Explain the **main** method of the class ? (psvm())
2) Explain System.out.println(); ?
3) Difference between Static , Non – static , Local variables ?
4) Difference between JDK and JRE ?
5) What is **var** type ?
6) Explain about Constructors ?
7) Explain about Constructor overloading , Constructor chaining , Default Constructor ?

8) What is **this** keyword ?
9) What is **super** keyword ?
10) Explain about OOPS concept ? (Inheritance , Polymorphism , Abstraction , Encapsulation)
11) Explain about Type casting and Class casting ?
12) What is run - time polymorphism ?
13) Explain about Interfaces ?
14) Explain all access specifiers ? (public , private , protected , default)
15) What is final keyword ?
16) Explain new features of Java 8 ?(default , functional interfaces ,lambda expressions , stream API) ?
17) Explain about abstract class ?
18) Difference between Interfaces and abstract class ?
19) Explain about Exceptions ?
20) What is Exception propagation ?
21) Explain about multi catch ?
22) Explain about Serialization and de-Serialization ?
23) What is Transient keyword ?
24) Explain about mutable and immutable ?
25) Why String is immutable ?

26) How to create immutable class ?
27) Explain about String constant pool ?
28) Difference between String , String Buffer , String Builder ?
29) Difference between **==** and **.equals()** method ?
30) Difference between continue and break statements ?
31) What is ternary operator ?
32) Difference between Array and vector ?
33) Explain about increment and decrement operators ?
34) What are Threads ?
35) How many ways we can create threads ?
36) What are runnable interfaces and callable interfaces ?
37) What is Synchronization , advantages and disadvantages ?
38) Explain Thread priority ?
39) Explain thread schedular ? (wait , notify , notify all , sleep)
40) Explain the Thread life cycle ?
41) What is Thread pool , join thread , detach ?
42) What are Enum , Wrapper , optional , local , anonymous ?
43) What are inner classes and singleton classes ?
44) Explain about final , finally , finalize ?
45) Difference between throws and throw keyword ?
46) What are regular expressions in java ?
47) What is tokenizer ?
48) What is cloning ?
49) What is hash code ?
50) What is JDBC ?
51) What is main principle of SQL ?
52) Explain about Collections ?
53) Difference between Array list and Linked list , vectors ?
54) How to find the length of the list ? (.size())
55) Explain about hash table ?
56) What is hashing technique ?
57) What is collision ?
58) Explain about Set interface ?
59) Difference between List and Set ?
60) Difference between hash set and Tree set ?
61) Difference between hash map and **concurrent hash map ?**
62) Difference between hash set , hash map , hash table ?
63) What is the common collection concept used in spring boot ?
64) Difference between Iterator and List Iterator ?
65) Difference between Comparator and Comparable ?
66) What are the new versions of JDK ?
67) How you implement rest full in project ?
68) What are execute services ?

69) What is dynamic binding and static binding ?
70) Write 2 -d array syntax ?
71) Explain about spring , spring bean , Spring bean scope ?
72) Code snippet for string object ?
73) Actuators ?
74) Stators in spring boot ?
75) Design patterns : Singleton , prototype
76) Java bi predicate
77) API flow , Rest API
78) JBOSS architecture
79) Stream methods
80) Copy constructor
81) Types of constructor
82) Executor service
83) Call procedure from .java
84) J unit
85) Login framework
86) SOAP vs REST
87) Expose and consume of web services
88) Hibernate JPA vs JPA repository
89) Prepared statements vs statements
90) JDBC template
91) What is SDLC ?
92) What are present in object class ?
93) Spring security
94) Email API
95) Parallel stream
96) Types of design pattern ?
97) How to optimize code ?
98) What actuator in spring ?
99) Bean factory and application context ?
100) How to exclude in spring boot ?

101) Types of inheritance in hibernate ?
102) Types of bean scope
103) Types of Auto wiring

104) Key components of spring boot
105) Drop vs truncate
106) Modes of auto wired
107) Spring security
108) Spring IOC
109) Streams in java
110) Aggregation composition
111) Fail fast , fail safe
112) @component
113) What is server validation and Clint validation
114) What is SAM interface ?
115) Difference between var and let in JavaScript ?
116) HTTP methods in spring boot ?
117) Agile methodology ?
118) Difference between monolithic architecture and micro service ?
119) OAUTH2, pact tool ?
120) Semantic monitory
121) Clint certificate
122) What you will do if micro service fail ?
123) Hibernate architecture
124) Spring initializer
125) Spring security
126) Difference between bean factory and application context
127) Different springBoot scopes
128) Different hibernate objects
129) Difference between mapping and configuration classes in hibernate ?
130) Load balancing
131) Circuit breaker
132) Jeera
133) GIT HUB repository
134) Front controller

135) @qualifier , @path variable
136) Count number of objects in java ?
137) Functional interface sub methods and types
138) How will you pass xml in application Properties ?
139) What is postman ?
140) Repository layer and how it will work ?
141) Where we store java code ?
142) Jenkins
143) Difference between session and session factory ?
144) Replace and replace all methods ?
145) How to read application properties file ?
146) Trust full API ?
147) How to copy one hash map to other ?
148) Address of last data in linked list ?
149) Which control used in project ?
150) What is DDL , DML
151) Difference between Web server and Application server
152) How to test Web service in postman ?
153) Can multiple finally blocks execute ?
154) How to connect two tables in spring ?
155)

ADVANCE JAVA QUESTIONS

156) Explain the life cycle of Servlet , JSP ?
157) What is servlet , jsp , html pages ?
158) What is Inter Servlet connectivity ? (ISC)
159) What are session variables ?
160) Explain about JSP tags ?
161) Explain about MVC architecture ?
162) Write a logic for JDBS connection ?
163) Explain about CSS and Java Script ?
164) Explain about JSTL tags ?
165) Different types of creating Sessions ?
166) Explain about request dispatcher ?
167) Write SQL queries ?
168) What are data types of SQL ?
169) What are constrains ?
170) Explain about joins ?
171) Difference between application server and Web server ?
172) Explain about J unit ?
173) How to create Spring boot project ? (maven)
174) Explain about application. Properties , repository layer , Controller ,

view , service layers ?

175) Explain about Entity classes ? (JPA , POJO)
176) What are the annotations used in springBoot . Explain each ?
177) Explain about Session factory and logic to implement it in project ?
178) Explain about Hibernate and advantages over JDBC ?
179) Explain about hibernate configuration and components of its object ?
180) Explain the steps to develop a web application using hibernate?
181) What are core interfaces of hibernate ?
182) What are the advantages of ORM over JDBC ?
183) Explain about spring ?
184) Difference between spring and spring boot ?
185) Explain about spring bean ?
186) Explain about web services ?
187) Difference between REST and SOAP ?
188) Why we use xml files over JSON ?
189) Explain about micro services ?
190) Explain about POSTMAN ?
191) What are the errors in postman . Explain about each ?
192) Explain the methods of hibernate ?
193) Explain HTTP methods ? (get , put , patch , delete , post)
194) What are hibernate annotations . Explain each ?
195) Difference between hibernate with annotations and hbm.xml files ?
196) Explain about **Agile** completely ?
197) What is dispatcher servlet , how it works ?
198) How will generate pdf in all the view ?
199) View resolver , Jack Son
200) How will you redirect to view ?
201) What are object states in hibernate ?
202) Explain dilate hibernate properties ?
203) Explain about level 1 , level 2 cache ?
204) Explain about Session tracking system ?
205) Difference between save and persist method in hibernate ?
206) What are @primary and @qualifier annotations ?
207) How to monitor more than one micro services ?
208) What are roll back and commit ?
209) How to handle exceptions in spring boot ?
210) How to authenticate application ?
211) @springBoot @cross origin @bean
212) Features of html and CSS ?
213) Difference between do get , do post ?
214) Types of dependency injection ?

215) @Component , @controller
216) @mapping annotations , @qualifier , @primary , @response body
217) Life cycle of spring bean ?
218) What is API ?
219) How expose and consume are done in applications ?

1. Entity class

2. ORM

3. Collection

4. How to store a student object into collection

5. How to retrieve a record from the student objects based on your name

6. Class Object

7. Instance variables

8. What you used to do in my

company MauriTech

1. Java 8 features

2. Sql join queries

3. Jpa v/s hibernate

4. Swap 2 strings without using any third variable

5. Primary key v/s unique key

6. Optional
class
MauriTech

1. Java 8 features

2. Sql join queries

3. Jpa v/s hibernate

4. Swap 2 strings without using any third variable

5. Primary key v/s unique key

6. Optional class

7. Qualifier annotations

8. Exception in microservices

9. Custom exception

10. Session factory

11. How to do mapping in spring boot

12. Microservices

Zafin

1. Entity class

2. ORM

3. Collection

4. How to store a student object into collection

5. How to retrieve a record from the student objects based on your name

6. Class Object

7. Instance variables

8. What you used to do in my company

9. What is web application

10. What is enterprises application

Virtusa

01. Introduce yourself

02. Write code to read excel file

03. How does data driven work... Write code for same

04. Describe your project

05. How to handle dynamic xpath

06. Different types of waits

07. Explain them

08. Write explicit and implicit wait

09. Types of expected conditions in explicit wait

10. What is http

11. What is frame ..

12. How to switch to a particular frame.

13. How to handle frames

Polus software

Location: Trivandrum,

Kerala Position:

Automation Engineer

Questions

1. Introduce yourself
2. Keyword driven and Data driven framework
3. STLC
4. Interesting bug you encountered in your project
5. What is selenium
6. Can you automate captcha
7. How to locate an element in a page
8. Difference between assert and verify

9. Difference between verify and soft assert

10. How to upload a file

11. What's junit

12. Annotations of junit

13. What is xpath

14. Types of waits

15. Black box and white box testing

16. Have you ever been criticised before.. how to deal with it

17. Encountered any conflicts with colleagues?

Hcl

Core java Basics ... Interface collection iterable constructor access specifiers oops concepts overloading overriding

Collection

How to remove duplicate from arraylist
Newgen

1.Diffrents between Overloading and

Overriding 2.New feature of java 8.

3.Diffrerence between Spring and

spring boot 4.Constructor overloading

method overloading 5.Encapsulation.

6.Controller and Rest

Controller. 6.Delete ,

Truncate, Drop

7. Difference between Left outer join and Right

outer join. IDC

1.WAP to sort array.

2.WAP swap two

numbers 3.Palindrome

Number.

4. .New feature of

java 8. 5.Find second

Max salary.

6. SQL queries for insert, update, delete,

Truncate. MDP

1. WAP How we perform web

services 2.Introduced your

project

CGI (I,II) 1 Rounds

1. Can we compile code without main.

2. Which block execute before main

3.If we have SIB and IIB and Constructor which

is run

4.first. 4.Inner classes ? Benefits .

5. New feature of

java 8. 6.What is

constant pool.

7.How we create immutable

class. 8WAP a code for the

inner class.

2 Round
Explain OOPS concepts with where your using in your project.

1. Differences between Array and Array List.
2. Differences between Array list and vector.
3. New Features of java 8
4. Explain program of palindrome number.
5. Overloading and Overriding
6. Why string is immutable.
7. Difference between spring and spring boot.
8. Explain spring MVC .
9. Annotations Controller, Rest Controller, Component, Configuration, Qualifier, Query.
10. Explain how we calculate second max salary

11. Explain JPA hibernate.
12. How we create own query in spring boot.
13. @Eureka
14. Spring

security. HCL

1 Explain OOPS

concepts 2.Hibernate

JPA

3.Key value of

Hibernate. 4.spring

and spring boot

5. New features of

java 8 6.explain

project.

7.Array list and Link list

8.Controller and Rest

Controller. 2nd Round

1. Introduce your self
2. Explain your
3. List
4. Overloading and Overriding
5. Spring Security

Docmation(almost 1

hour) 1st Round

1. WAP sort

2. WAP palindrome
   number WAP10101
   01010
   10101

I have attended 5

interviews and these are questions of all the

interviews

I have given only extra questions I got other than sir list of questions

01010

10101

All repeated questions .

2nd Round

1. All OOPS concepts with code
2. And sql queries
3. Project explanation
4. Joins

Vertusa

1) oops

2) most of core java(out of 45 qstns gvn by sir)

3) advance Java (project related qstns, some basic annotations, spring cloud, spring security)

4) some company related qstns

5) agile methodology

Programs

1) adding values and reading from arraylist

2) Fibonacci series

Sasken Technology & first connect.1st

round:

1) oops full

2) program on arraylist and treeset

3) serialisation deserialization

4) String vs stringbuilder vs string buffer

2nd round:

1) project mvc flow

2) annotation

3) microservice implementation

Hr round:

1) about company roles

2) about documents and joining date

L&T

1) only core Java in first round (out of 45 only)

2) project and annotations in second round (out of 15 only)

3) HR round about pf slary slip etc.
: Terralogic

1) oops full concepts

2) example for inheritance

3) Fibonacci

4) pallindrome on integer

2nd round:

1) about project based on MVC

2) annotations

3) spring security

Hr round:

1) documents

2) date of joining etc etc

Verizon

1st round

1) data structers and algo

2) oops

3) thread life cycle

4) servlet life cycle

5) serialisation and deser....

6) Java 8 new features

7) implement lambda program with int as method argument

8) qstns on project

9) how to run java without compiler

2nd round

1) all annotations

2) project related qstns related to repository layer custom query

3) webservices and microservices

4) core java oops and thread life cycle

5) program to reverse string

6) how you run hello world without compiler

Hr round

1) about past organisation

2) documents and bank related query
3) joining date and location
: Digi spice

1st round:

1) oops

2) overriding overloading program

3) reverse string program

4) pallindrome program

5) file reader and file writer program

6) serialisation program

7) tree set program

2nd Round

1) told to implement mvc and write a simple webapp in sts to take 2 values and compare if they are same if they are same add to database and implement webservices to expose the same value.

3rd round

1) documents

2) about adress and doj

: Fulcrum (ikrux)

Told to write query , Then

about spring bootProject

Explaining

Core Java

- enumeration

-collection

-hash map working

-oops

- java 8

- optional class

- functional interface

- logic of pgm (reversing a string)

- Spring boot

-@ autowired

-Starters

-Actuators

-Dependency injection

-Definition of microservices

Difference between string string buffer string builderComparators

Collection (array list , linked list , hash set)Collision

Serialization

Where do we use serialization ?

Polimorphism

Replace and replace all()

Finding duplicate elements in a list How to read

application properties fileAutoconfiguration in

spring boot @controllers and @restcontrollers

Spring boot advantages

Xoriant

(X-a)(x-b)(x-c) ....(x-z)=?

How to remove duplicate records

Wait() Notify

() Notifyall()

Join()

Deadlock
What are the Memories available
Architecture of jvm

Einfochip

OOPS concept

Thread

Notify() NotifyAll()

Syncronization Abstract

class Interface

Joins Types

Primary key foreign key unique key Array pgm

to sum of all the elementsMulti threading

Joins Ddl

dml

Hibernate definitionOops

Collection frameworkTcs

Project explanation

Spring security

Exception and handling exception..Design

patterns in project Database constant pool

cognizant

1.explain about your project

2.how, you implement microservices in your project

3.How to implement your webservices

4.Java 8 new features (this features u used in your project)5.Which

collection concepts u used in your project?

9.spring MVC

10 spring boot Annotations. All annotations

11.oops concept

12.some other questions base on projects

13.Diffrence between array list and link list

14. WAP Array list program

15. difference between list and set

16. Microservices features

HCL

1.Write a query to sort the element in ascending order2.Difference between static and non-static

3. Explain all types of joins in SQL with example(query)

4. Explain exception and what is mean by custom exception in java

5. difference between array list and link list 6.Difference between comparable and comparator

7. opps concepts in java

8. explain spring boot

9. spring mvc

2 nd round

1 Java is the functional programming language or object-oriented language

1. HTTP methods (explain all HTTP Methods in webservices)3 explain REST API in detail

4. explain postman tool how u test your webservices using postman

5. microservices features

6. spring boot database connection in detail

7. what is mean by URL, URI, URN explain all and also difference between them

8. How u used webservice in your project implementation of webservices in spring boot

9. implementation microservices in your project

10. some project related question

11. explain collection concept used in your project

12. Hibernate protocol

TCS

1. What is spring pool

2. Diff bit spring and spring boot

3. Diff but @rest controller and @controller

4. What is @restcontroller

7. Diff .equals and =

9. What is thread class

10. Did you use any design patterns?
11. Explain single turn design pattern

12. Diff bit string buffer and string builder

13. Why string is immutable

14 diff bet delete and trunclet

15. which is faster inner join or join in sql

16. How to develop REST API

17. Diff bit hash code and hash table

18 @enable annotation what is the use of this annotation 19

@entity annotation

20 What is @componet

21. Why we create controller what is the use of controller JRK

Infotech:

1.Order by query and 2,3 queries

2. create employee table

3. create two table using join

4. What is day to day activity

5. scum and agile process in detail

6.Explain Business logic of your project

7.What are the modules u used in your project

8.diff bet overriding overloading

What is inner classes in java

What is multitasking where did you used this in your project

Implementation of webservices

Diff bet webservices and API

What is API explain Rest API

@Request body

@RESTCONTROLLER where did you usedWrite

your project code

Where you store your project

What is mpls

What is mean by Jira ticket how to generate that

Umlaut Accenture

1.why u leaving your current job

2.group by query and some order by query

How to add in column in existent table

Diff bet delete and drop

How to update the fat

WAP to print emp id name salary input and outputDiff

Left join and right

Webservices

http methods

yml files in spring explain

deployment of project explains

what is @ rest controller

how to create URL

how to interact hibernate with spring boot in your projectdiff bet JDBC n Hibernate

Tech-1 (Chennai)

1. Explain OOPs concept.
2. Exception Handling in java
3. Exception Handling in java
4. Write a java program to check two strings anagram or not.
5. Java Program to scope two number with ought using third variable.
6. Write SQL Query to find Second maximum salary in given table.
7. Join in SQL

Tech-2 (Chennai)

1. Explain your project
2. What is @ component in spring boot.
3. Spring boot application
4. How you implement email sending services in your project.
5. How to generate PDF file.
6. What architecture you follow in your project.
7. What is springboot advantages over spring.

Tech – 1 (Noida)

1. What are OOPs concept.
2. Difference between string buffer and string builder.
3. Why java does not support multiple inheritance.

4. Difference between hashtable and hashmap
5. Stream API.
6. Concurrent hashmap
7. Joins in SQL
8. Java program to print alternate number from an array.
9. Why string is immutable?
10. Method overloading and method overruding
11. Exception handling in java
12. Difference between notify and notify all.
13. Throw and throws keyword.
14. Difference between final, finally and finalize.
15. Why we create in complete method in abstract class and interface.
16. How we create thread in java
17. Thread life cycle.

Tech-2 (Noida)

1. Explain your rules and responsibilities in current company.
2. Where you used ooPs concept in your project.
3. What is MVC routing.
4. What is difference between @ controller and @ rest controller
5. What @ query does.
6. How you perform debugging in spring boot.
7. Work flow of project (mention in Resume)
8. How email API works.
9. What is spring IOC
10. What is Hibernate.

POLYMORPHISM

OVERRIDING AND OVERLOADINGTYPE CASTING

UPCASTING DOWNCASTING

ABSTRACTION ENCAPSULATION

LAMBDA EXPRESSIONSAM

INTERFACE HASHMAP

ARRAYLIST AND LINKEDLISTTRANSIENT

KEYWORD SYNCHRONIZATION

ORM TOOL

PRIMARY KEY AND FOREIGN KEYCOGNIZANT

INTERVIEW

1. JAVA VERSION
2. WHAT ARE THE EXCEPTION BLOCKS

3. STRING IS CLASS OR IMMUTABLE CLASS
4 STRINGBUFFER AND STRING BUILDER HAVE U USEDAND WHERE

5. WHAT IS ENCAPSULATION ?HOW DO U USE IT

6. WHAT ARE THE JAVA CONCEPTS U USED IN URPROJECT

7 WRITE JDBC CODE

8. PREPARED STATEMENTS

9. SINGLETON PATTERN

10 WHAT IS PRIMARY KEY CAN WE CREATE TABLEWITHOUT IT

11 WHAT IS JOINS WHAT ARE THE JOINS AND WHAT ISRIGHT JOIN.

HOW DO U ACCESS COMMON DATA FROM TABLES12.BRIEF PROJECT

13 WHAT ARE THE ANNOTATION USED IN SPRING BOOT
14@AUTOWIRED WHAT IS IT
@REQUEST MAPPING

15. WHAT ARE THE METHOD ANNOTATION U USED IT

16. WHY USE SPRING BOOT AND WHY XML FILE OVERJSON

17. WHAT ARE THE HIBERNATE ANNOTAION U SED IN URPROJECT

18. Oops

concept

Abstract vs

interface

19. Exceptional

handling concept

String

20. Why Java is

object oriented

Mutable vs

immutable

Primary key

21. Some annotations from

spring boot Collection

framework questions

Microservices

22. About roles and responsibilities in project. final keywords.

23. About access modifier

Question Asked from Core Java.

1.What Is Abstraction?

2.Explain Oops Concept?

3.Explaing Upcasting and Downcasting with example. 4.Java 8 features.

5.Write a program of validating mobile number? 6.Explain Internal Working of Hashtable and HashMap? 7.Why do we use Default method in Interface?

8.Monolithic and MicroServices Differences.

9.Explaing String Constant Pool Concept and logical question on that topic. 10.How thread can be created?

11.Difference between ArrayList and LinkedList. 12.Arraylist Implementation?

13. Why String is immutable?

14. Write a program to display runtime and compile time polymorphism. 15.Explain doubly linkedlist Structure?

16.what is SQL

Normalization? 17.explain

joins in sql?Types of joins.

18.Foreign and Primary Key?

19.what is difference between ==

and Equals(). 20.Exception hierarchy.

21. What is anonymous class?

22. What is difference between == and

=== in javascript? 23.Why pointers are not

used in java?

<u>Some Questions Scenario Based Questions.</u>

1. There are two arrays on consist arrival time and another leaving time. Write a program in which no trains collide with each other and find the minimum number of platform.

2. An array consist of positive and negative integers and find out the square of each number in the array and sort them in ascending order.

3.Write a program in which input is given as mobile number and according to the number print the letter.

Eg: input:

8372836061

Output:8-H

3-C……

4. Write a program to

reverse the string?5.Explain

Hibernate Internal working.

6.Program on Upcasting and

Downcasting.7.Remove duplicate

elements from Array. 8.Stream

API programmes.

Some Questions On Project

1.What are the scopes of Bean in

Spring Boot?2.What is singleton

design?

3.What are the ways of auto-wiring in

spring boot?4.How does execution

started in Spring Boot?

5.How did you develop end points in

your project?6.How did you use OOPS

concept in your project?

7.how can we forcefully stop the execution of

finally block?8.What is HTTP servlet?

9.What are executor service?

10.Different types of Web

Services? 11.Difference

between REST and SOAP?

12. Junit testing Annotations that you used in your project?

13. Application Server and Static Server?

14. Why do we use Request Dispatcher?

15. Spring IOC

life cycle? 16.JSP

Tags

Question Asked from Core Java.

1.What Is

Abstraction?

2.Explain Oops

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11.Difference between ArrayList and

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Implementation?

15. Why String is immutable?

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Normalization? 17.explain

joins in sql?Types of joins.

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reverse the string? 5.Explain

Hibernate Internal working.

6.Program on Upcasting and

Downcasting. 7.Remove duplicate elements from Array. 8.Stream API programmes.

Some Questions On Project

1.What are the scopes of Bean in Spring Boot? 2.What is singleton design ?

3.What are the ways of auto-wiring in spring boot? 4.How does execution started in Spring Boot?

5.How did you develop end points in your project? 6.How did you use OOPS concept in your project?

7.how can we forcefully stop the execution of finally block? 8.What is HTTP servlet?

9.What are executor service?

10.Different types of Web Services? 11.Difference between REST and SOAP?

Vareli

Introduce yourself

What is the major achievement in your project Static method can override or not

What is abstraction

Give me a real life example

Give some code and asked the

output Sting buffer vs string

builder

Why string buffer is thread

safe? What is thread

Tread achieve

String constant

pool

Give some code and asked me the output about

immutable string Which modules are created

Which forms are

created Etc forgot it

Cognizant interview questions:

Introduce

yourself String

thread pull

String

immutable

Collection

Difference btw array list and

hash map Spring boot annotation

Primary annotation
Collection and collections

String buffer and string

builder Vector

Difference between string and string

buffer How to read the string as a

character

16. Junit testing Annotations that you used in your project?

17. Application Server and Static Server?

18. Why do we use Request Dispatcher?

19. Spring IOC

life cycle? 16.JSP

Tags

20. Interview Questions
21.

22. Oops concepts

Collections Threads

23. Java 8 features

24. Spring boot annotationsSpring

MVC

25. Stream API

SQL queries

26. Real time example of oops concepts

Identity and access

1) oops concept

2) threads

3) java 8 new features

4) encapsulation program

5) Webservice implementation in project

6) microservice integration in project

7) collections hierarchy

8) exception types

9) what is

hibernate

10)what is JSP

11)joins in SQL

12) inner join query

Cognizant

*Which version of java u used in ur project.

*Java 8 features.

*@Function interface sub methods or types.

*Lambdas expression syntax.

*Streams of java.

*Application.properties configuration and *how u ll pass XML in application.properties.

*What is postman.

*Primitive and objects data types difference.

*Repository layer how it ll work.

*SQL querie based on Max function

*Array list nd set difference.
*String concept based questions like how to get only integer from mixed string.

*How did u implement Webservice in your project.

*List based questions like how to get greater than 50 marks from student list .

*How to connect with JDBC.

Xoriant

1) Java 8 features

2) Static and instance variable difference

3) Difference between list and

set4)Hash map working

5) What is Immutable class and how to create it

6) what's multi threading and how to

create it7)ways of reverse a string

program

8) project

explanation9)wt's

JPA

10) how hibernate u implemented in ur Project

11) wt's microservice and webseries and how u ll implement in ur

project12)wts view from SQL

13) max,count query

14) exception handling in

java15)oops concepts

16) some basic program on static and non static variable

17) difference between == and equals()

method18)some basic program on string

19) spring boot and microservice difference

20) how u created project like we have to explain flow of project

21) interface and abstract difference

22)final and immutable classes in java

23) stream api

24)inner nd left join difference

25) runnable interface based program (like find output of

program)TCS

1) Webservice and microservice implementation in ur project?

2) whatsapp is hibernate nd how u implemented in ur project?

3) what is JSP and jsp lifecycle?

4)what all Junit methods?

5) what's is postman?

6) what all servers u used in ur project?

7) security methods in springboot?

8) why springboot? 9)what is

DDL and DML?

10)innerjoin and sunquery question?

11)throws & trow?

12) exception handling in java ?

13) finally block? 14)java 8

new Features?15)oops

concept?

16) public static void main() meaning?

17)static and void related questions?

18)what is constructor?

19) try,catch related some questions.

20) can we handel exception using try catch blocks in throws methods?

21) ***CORE JAVA***

22) What are the loops and purpose of loops?Is if else comes under loops?

23) Types of access modifiers explain

24) What is if else statement and how to use Equals and

25) == in if else statement with examplesWhy String is immutable in java.

26) Which class is immutable other than string?How can we create immutable class?

27) What is singleton class and how can we createsingleton class in java with example?

28) String buffer vs string Builder vs string withexamples

29) What is string pool stack and heap memory concept.?How many object will be created with new keyword?

30) With different scenarios

31) What is Static in java how to call static method andcan we use static with class? If not why

32) Why we use static keyword?

33) What is String why there is concept of String?

34) Oops concept in details with real time and withproject examples.

35) Overriding vs overloading.

36) Does overloading happens in compile time orRuntime.?

37) Can we change the whole method variables of interface by overriding? Explain why and what willhappen?

38) Why java doesn't support multiple Inheritance?Explain with examples

39) Why we need abstract class if we have interface.

40) Where to use abstract class and where to useinterface.

41) Why we need constructor in abstract class.

42) Can we override static method What will happen ifwe try to override static method.

43) Can we override private method what will happen ifwe try to do so.

44) Can we override overloaded method? How withexample?

45) Can we override final method if we can or cannotwhy

46) Can we use final keyword with class name. What isthe real time use of final keyword. Where you haveused it in your project.

47) Why we use getters and setters method? How you achieve

Abstraction in your project?What is runtime polymorphism?

48) How to achieve Inheritance?Why not only

getters?

49) Difference between final finally finalize with real timeexamples.

50) Can we make constructor Private? Why not or why ifwe can?

51) What is System.out.println explain.

52) What is public static void main (String [] args) { Can we create object in object

class? If yes/no whyWays to create object in java.

53) Explain object life cycle.

54) *collection*

55) Difference between collection and collections?Explain collection in details?

56) Which collection class is synchronized?

57) Is array static or dynamic? If static what we use fordynamic? And how much size will be increased if array have no space left and you will use array list?

58) Difference between array list and linkedlist?

59) What we use for manipulation of data and what weuse for retrieving of data in collection?

60) Difference between hashmap and hashtable?Difference between

hashset and hashmap?

61) Methods to sort collection? How to reverse list
in collection?Internal working of hashmap?

62) If hashmap is not thread safe then if multiplethreads are invoking
then what will happen?

63) How to do iteration in collection?

64) Difference between iterator, enumerator and listiterator?

65) What we use for bidirectional iteration?

66) Difference between synchronized hashmap andconcurrent hashmap?

67) What is concurrent modification exception how tohandle it?

68) What is fail safe and fail fast?

69) Why we use put method instead of add in hashmap?Why hashmap is not a part of
collection?

70) Difference between collection and hashmap? Why linkedlist implements
both queue and list?

71) Why hashmap doesn't follow insertion order if it putsentries as linked list in the node
of bucket or index?

72) Comparator vs comparable? When to use it?

Thread

73) What is difference between thread andmultithreading?

74) What is difference between process and threading?Ways to create thread class?

75) Which one is better and why?

76) Difference between join and sleep method?How to give priority to the
thread?

77) Explain wait notify and notify all? Why they arepresent?

78) What is object lock vs class lock?

79) What will happen when calling thread.run() insteadof thread.start()

80) Can we call run method before start method?Why we need to overide
run method?

81) What is synchronized keyword?

82) What is deadlock and how to avoid it?

83) What is thread safe? Benefits of thread safe.

84) *JAVA 8 FEATURES*

85) What java 8 features you know?

86) Explain functional interface with example?Where to use lambdas expressions?

87) What methods we use in functional interface otherthan runnable and callable?

88) What is stream api? Why ae use stream api forcollection?

89) Methods for stream api with basic coding sortingetc.

90) Difference between filter and map What is date time api with examples?

91) *EXCEPTION AND EXCEPTION HANDLING*

92) Difference between exception and errors.Types of exception?

93) Types of checked and unchecked exception?Explain exception hierarchy?

94) Ways to handle exception in java?Explain try catch and finally?

95) Can we use multiple catch and finally block with andwithout try block?

96) Difference between throw and throws.

97) How you used to handle exception in Spring boot?

98) How to create your own customized exception?

99) Why there is concept of compile time exception ifexception shows at runtime?

100) Why throwable is class not interface?

101) What types of exception you got in project and howyou handled it?

102) *JUNIT*

103) How you performed unit testing?What you used for unit testing?

104) Annotations for Junit?

105) How to test controller class with junit? Which annotations to call first using junit.

106) Difference between @before and @beforeClass?

107)
108)
109)--- ***------ADVANCED JAVA ***
110)
111) *jsp- Servlets*

112) Difference between jsp and Servlets? How to configure database with JDBCWhat is request dispatcher?

113) Jsp life cycle? Servlets lifecycle? What is Servlets? What is MVC pattern?

114) What are the tags in jsp? Explain it.

115) *Spring Boot*

116) Why Spring Boot?All annotations :-

117) Component, controller, repository, service,requestParam, modelAttribute, SpringBootApplication, @Autowired etc.

118) Start point of spring boot application

119) Controller vs Rest Controller Request mapping vs get mappingSpring vs spring boot Advantages of Spring boot

120) What is spring mvc?

121) How to handle exception in Spring bootDependency injection

122) Types of dependency injectionTypes of scope

123) Spring AOC Spring containerPom.xml

124) What is profiling in Spring boot? How to set profiles in Spring boot?Spring actuator?

125) What is DAO class?

126) How to do debugging in Spring boot? What are breakpoints and watch points?

127) What is spring security?

128) Difference between authentication and authorization?

129) *Hibernate*

130) Why hibernate over jdbc?Jpa vs hibernate

131) Orm vs jpa

132) Annotations of hibernate?What is entity class?

133) Session Session factoryTransaction

134) Session management

135) Get vs load

136) Save vs saveorupdate Lazy vs eager
loading Many to one, one to manyN+1
problem

137) Hibernate life cycle

138) If we need mobileNo. validating only 9,10,11 digits?How will you do? Which annotations to use?

139) How to config hibernate with database?

140) *Microservices and web services*

141) What is Rest

142) Rest api vs Restful web servicesRest
Controller

143) How to expose Restful web services How to
consume Restful web services

144) Methods to consume Restful web servicesWhat are the
http methods explain Difference between get and post

145) Diff between do get and do postDiff
between post and put

146) Diff between put and patch
What is json

147) Structure of
jsonWhat is
payload

148) What package Rest api come from?

149) Why Rest over Soap?
Rest resources

150) Why micro services? Disadvantage of
micro services Why Restful web services
Advantage of micro services Disadvantages
of micro services?What is file format

151) Why json?

152) When to use request mapping when to use getmapping

153) Suppose we have 4 micro services A, B, C and D andif C is down or have
some bugs how to tackle this situation?

154) *AGILE SCRUM METHODOLOGIES*

155) What is agile?

156) What is scrum methodology?

157) Why you chose agile instead of waterfall as waterfallis safe?

158) What are scrum ceremonies?

159) HAVE you attended scrum meetings? What you did?Have you interacted with customers?

160) What user stories you worked on?What is story points?

161) Day to day work?Scrum master?

162) Who did Effort estimation?

163) What were the sprints in your project?

164) How much developers and testers were in yourproject?

165) Whom you used to report to?

166) How you used to get your assignments of project?What were the backlogs in your project?

167) *SQL QUESTIONS*

168) DDL VS DML

169) Diff between primary, foreign and unique keys. What are joins why we use joins and types of joinsDiff between inner and outer join

170) Diff between left and right join

171) How to increase query performance?Indexing in sql

172) What are the constraints

173) How to join different columns.? Triggers in sal

174) Prepared Statement in sal

175) How to select data in my sql
176) CRUD operation in mysql:- insert, delete, update, etc2nd Max salary in sql (

Any max salary too)

177) *CODING*
178) FIBONCCI

179) Palin

drome

even or

odd

180) Sort using stream api, bubble sort, etcCreate an

abstract class

181) Create an inner class

Create a singleton class

182) Create a functional interface

183) Reverse String without using pre-defined methods orfunctions

184) Get 1st non repetitive element in the given stringRemove duplicates from

String and array

185) Sort the given string then find the mid element andprint the sum of even numbers

186) Print all non repetitive characterPrint

vowels / consonant

187) *ATLEAST LEARN HOW TO USE ABOUT FOR LOOPSIF ELSE, COLLECTION METHODS, HOW TO CREATE THREAD CLASS*
188) *PROJECT RELATED QUESTIONS*
189) Explain your project

Explain your project flow

190) Roles and responsibilities in yout project Tools and

technologies used in your project?

191) Why chose microservices for your project?

192) What collections concept you used in your projectand where with examples?

193) What java 8 features you used in your project andwhere with examples?

194) What oops concept you used in your project?Have you used thread in your project?

195) Have you used abstract class in your project?

196) Explain how implemented Restful web services andmicroservices in your project?

197) Why used spring Mvc for your project?

198) Which tool you used for testing web services? How you used to share your codes with others?How you used to communicate with testers?

199) What exceptions you got in your project and how youhandled it?

200) Where you used hashmap in your project?What were your project functionalities?

201) What bugs you got?

202) How you did email configuration in your project?How you did pdf integration in your project?

203) What framework you used in your project?

204) *NOTE 1:-*

205) FOR SPRING SECURITY, Deployment, CI/CD, DOCKER, CONVERTING JAR TO WAR OR WAR TO JAR, AUTHENTICATION, HIGH LEVEL DEBUGGING

206) ANSWER IS:-

207) *MY SENIOR USED TO TAKE CARE OF IT*

208) *NOTE 2:-*

209) *IF YOU DON'T KNOW THE ANSWERS THEN TRICKYOUR INTERVIEWER JUST DON'T SAY I DON'T KNOW*

210) *AND PLEASE DON'T TELL WRONG ANSWERS IF YOU DON'T KNOW THE ANSWERS*

211) *NOTE 3:-*

212) *PREPARE TELL ME ABOUT YOURSELF AND PROJECT IN WELL ORGANIZED MANNER AND INYOUR WORDS*

INTERVIEW QUESTION

1) What is static, non-static/instance, local variables?
2) Difference between primitive and non-primitive data types?
3) What is Constructors and its types and need of constructor?
4) What is OOPS concept? Explain
5) What is SOLID principle with advantages?
6) Difference between JDK, JRE and JVM?
7) What is anonymous class?
8) What is Garbage collector and need of garbage collector in java?
9) Explain Types of memory in java and explain each?
10) What are Class, Method and Object in java?
11) Difference between return and return value?
12) What is this keyword?
13) What are packages in java?
14) What is type casting and its type explain each?
15) What is interface and abstract class and when to use interface and when to use abstract classwith example?
16) What is abstract keyword?
17) What is run time polymorphism?
18) What are marker interface and its uses and need?
19) What are java 8 features explain each?
20) What are access modifier explain each?
21) Can we change the visibility of method while overriding? If yes then what is condition in it?
22) What are Scanner class and its uses?
23) What is for loop?
24) Difference between While and Switch statement?
25) Difference between continue and break statement?
26) Explain main method in java?
27) What is System.out.println()? Explain

28) What is Array? And its type

29) What is Serialization with example?

30) What is Deserialization with example?

31) What is transient keyword?

32) What is volatile keyword?

33) What is final, finally and finalize in java?

34) What is var type?

35) What is string tokenizer?

36) Can we overload static method in java?

37) Can we override static method in java?

38) What is super most class in java?

39) What is data hiding and how to achieve?

40) What is Static block in java?

41) What is Non-Static block in java?

42) What is Super keyword in java?

43) Difference between This and Super keyword?

44) What are Exception in java and its type explain each?

45) How many ways to handle exception in java explain each?

46) Explain exception hierarchy?

47) Can we write finally without catch block?

48) Difference between throws and throw?

49) What is exception propagation?

50) Explain Checked and unchecked exception?

51) What are command line arguments?

52) What is thread?

53) What is Demon thread?

54) What is multithreads?

55) Difference between thread join and sleep method?

56) Process to create thread and which is best and why?

57) What is thread scheduler?

58) Explain about priority of thread?

59) Explain wait, notify and notify all?

60) What is thread pool?

61) What are executor services?

62) Difference between runnable and callable<T> interface?

63) Disadvantage of thread?

64) Explain thread life cycle?

65) What is Synchronization?

66) What is Synchronized keyword?

67) What is String in java and why String is Immutable in java?

68) Difference between String, stringbuffer and stringbuilder?

69) What do you mean by mutable and immutable?

70) How to make a class immutable with example?

71) Why java is platform independent language?

72) Why java is not pure object oriented language?
73) Difference between .equals method and == operator in java”?
74) Why pointers are not used in java?
75) What is singleton class and how we can make a class singleton?
76) What is Collection framework?
77) What are wrapper classes?
78) What is tokenizer?
79) What is cloning?

80) What is hash code and equal method?
81) Why to override hashcode and equal method?
82) What is JDBC and write code of JDBC?
83) Difference between Collection and Collections?
84) Explain Collection hierarchy?
85) Explain List, Set and Queue?
86) Difference between ArrayList vs LinkedList and Vector?
87) Explain HashTable and HashMap?
88) Internal working of HashMap?
89) What is Collision and how to overcome this?
90) Difference between synchronized collection and concurrent collection?
91) Difference between comparable and comparator?
92) Difference between Enumeration and Iterator?
93) What is Tenary operator with example?
94) What are unary operators and its example?
95) What are association and its type?
96) Difference between Iterator and ListIterator?
97) What is Fail fast and fail safe?
98) What is Servlet?
99) Difference between Doget and Dopost?
100) What is InterServlet Communication?
101) What is Request Dispatcher?
102) Difference between ServletConfig and ServletContext?
103) Explain Servlet Life cycle?
104) What are Session Variables and its type?
105) What is JSP? And its tag?
106) Explain JSP life cycle?
107) What is JSTL tag?
108) What are implicit object?
109) What is HTML and feature of HTML5?
110) Explain MVC architecture?
111) Difference between spring and SpringBoot?
112) What is Web Services and its type?
113) How to expose and consume web services?
114) Difference between SOAP and RESTFull web services?
115) What is POSTMAN?

116) What are Http methods explain each?
117) Difference between micro services and monolithic applications?
118) What is Maven?
119) What is Spring Initilizer?
120) What is Unit testing?
121) What is Junit?

122) What is JPA?
123) What is Hibernate JPA?
124) What are Spring IOC and Its type?
125) What is spring security?
126) What are JPA annotations used in your project explain each
127) What are spring boot annotation used in your project explain each?
128) What is Dependency injection?
129) Types of Autowire and explain each?
130) Difference between @Controller and @RestController?
131) Difference between @Autowiring and @Bean?
132) What is @Qualifier and @Services and @Component and @Value and @Query ?
133) Explain @SpringBootApplication?
134) Difference between BeanFactory and ApplicationContext?
135) Difference between JPA and Hibernate?
136) Explain advantage of Hibernate over JDBC?
137) What is Session in hibernate?
138) What are roll back and commit?
139) Session management in spring boot?
140) How to create session object?
141) Difference between session and sessionFactory?
142) Difference between get and load method of hibernate?
143) What is caching and hibernate and explain 1st level and 2nd level caching?
144) What are Core interface of hibernate?
145) What is Jenkins?
146) What is JERA?
147) How to read application.properties in any class?
148) What are response codes of POSTMAN?
200/201/204/400/401/403/404/405/500/503
149) Explain Session Tracking System
150) Explain types of spring bean scope?
151) What is Actuator in spring boot?
152) What is Starter tag in spring boot?
153) Types of hibernate mapping explain each?
154) Types of inheritance in hibernate?

155) Difference between Drop and Truncate?
156) Write SQL basic query?
157) Find 2nd max salary from employee table?
158) What is Primary key and foreign key?
159) What are joins in SQL explain each?
160) Explain SDLC model?
161) Explain about Agile methodology?

Interview Questions

1. Spring Security
2. Authorization vs Authentication
3. Polymorphism
4. Can we override private methods
5. What is the return type of Overloading method
6. Switch program like case 2 and case 3 execute with same statement
7. Create a method which can pass n number of argument of string
8. Http response status codes like 500, 503, 400, 202, etc.
9. Aggregation vs Composition
10. Is java pure object oriented?
11. Runtime polymorphism and compile time polymorphism
12. Singleton Design Pattern
13. get() vs load()
14. Why Hibernate
15. Hibernate cache
16. Many to Many example
17. LinkedList vs HashMap
18. Main difference between HashTable and HashMap
19. Sql queries - create table, write select query
20. Exception & How to handle it
21. List vs Map
22. Write a program for email validation
23. How to generate pdf
24. How to configure email sending services in your project
25. OOPS concept
26. Controller vs Rest Controller
27. What is the scope of spring bean
28. Singleton design pattern & it's code
29. Dependency Injection
30. Fail-fast vs Fail-safe
31. ConcurrentModificationException
32. SQL Joins
33. Primary key

34. Foreign key
35. DDL & DML
36. Delete vs Truncate vs Drop

Spring Security

1. What is Authentication & Authorization.
2. Which all methods present in spring security.

Hibernate.

1. Why you are cesing hibernate instead of JDBC.
2. What in hyber & why in called ORM.
3. What in entity / POJO class why you regerired
4. D/f b/w cession & version factory.
5. D/f b/w JDBC & hibernate
6. What in hibernate mapping types.
7. Hibernate cache & its advantages.
8. Get () & load ().
9. D/f b/w 1st level cache & 2nd level cache

Monolithic & Micro services

1. Why your come for microservice instead of monolithic.
2. Explain microservice from the scratch.
3. How you will exposes the consume webservices.
4. Give me one practical eg now will lee the exceptions & how to handle it.

Project

1. Explain your project & what your rules.
2. Business logic of the project & which domain your project belongs to.
3. Explain project flow & which all modules you developed
4. D/f spring & springboot why you are using springboot
5. Bean life cycle/ actuator/spring initializes.

12. Where did you change the part No. (tell me that line of code)
13. Which is the starting point of your applications (explain flow)
14. Where did you used collection concept in your applications
15. D/f b/W JPA & CRUD repository.
16. Explain JSTL tags.
17. What in API & which API in used in your application.

18. D/f b/W controller & part controller.

Webservices.

1. Explain webservices & which all annotation in used & types of webservices.
2. Explain the structure of J8on.
3. Explain postman & nttp methods & error code.

JSP & secrets Advance Java

1. What are serutes.
2. How you read the front and data in the backend in learvles.
3. How you configure JDBC connection (code write) explain.
4. Reguest dispatcher (ases) write code.
5. What are session variables write a code on it.
6. JSP & explain JSP tages, what is the cese JSP
7. JSP translator.
8. Implicit subject explain.
9. Explain MVC architecture.
10. Serve life cycle & JSP life cycle.
11. D/f b/w doget & dopost
12. Why you required Tomcat and version.

Spering boot

1. Version of STS & how you create a springboot project in STS.
2. Explain maven & pom.xml file (maven repository)
3. Which unit testing tool is used & its annotations.
4. D/f b/w Eclipse & STP.
5. D/f b/w JPA & hibernate.
6. Entity, controller, application, prop repository, services, (why we regvi)
7. Explain all springboot annotations.

8. How you read front end data in the backend (which all ways & what annotation)
9. What all methods you used in services loyer in order to perform CRUD operations.
10. Where did you implemented hibernate in you application & which all loyers of hibernate & its annotations (version)
11. What in dependency injection & what are different ways.
12. Spring I oc & where did you used oops concept in your applications.
13. What in rollback & commit.
14. Explain normalizations.
15. They are asking some questions on agile.

Logical questions.

1. Palindrome No/string
2. Prime No.
3. Reverse a string
4. No of words in a given string.
5. How to find a duplicate element in an array.
6. Short on array & find maximum & minimum Valarie's in on array.
7. Armstrong No. & Fibonacci services
8. Explain Eager loading & lazy loading.

SQL

1. What in database & why it in required.
2. Examples which your covered.
3. Print the enamel who in having more salary.
4. Built in functions
5. Give me the example of like keyword.
6. Primary, foreign, unigue key
7. Truncate, delete, drop
8. 2nd, 3rd max some times 10th max.
9. Sub quires & they ask to find some thing
10. Take your ex & write the query for joins (cgi) & explain joins.

1. What is overloading and overriding?
2. Difference between abstraction and incapsulation
3. Difference between abstract and interphase.
4. Why we use default method?
5. Compile time polymorphism and run time polymorphism.
6. Explain oops concept with real time example.
7. Where we use oops concept in project?
8. Explain final, finally and finalize
9. Difference between throw and throws.
10. What is exception handling?
11. Difference between error, and exception.
12. What is composition and aggregation.
13. What is file handling?
14. Difference between list and set.
15. Array list vs linkedlist
16. Internal working of hashmap.
17. Difference between stringbuffer and string builder.
18. Write a program to check given string pallindror or dot.
19. Write program on arraylist.
20. Static and non-static
21. Pattern programs.

22. Difference between comparator and comparable.
23. S difference between spring and springboot
24. What is dependancey injection?
25. Springboot and notations.
26. JPA notations.

Citius tech

1. Class not found vs no class deformed
2. How you filter
3. What is error
4. When you pass in the overheaded method of type object of string what should it call.
5. What is lock interface.
6. What is database schema
7. Oops wish real time example.
8. Internal working of hashmap.
9. How to connect with database in hibernate
10. Get () vs load ()
11. Load
12. Multithread
13. How to make 2 threads
14. How to make 2 threads run one after another.
15. Lock interface.
16. How you consume webservice.
17. Print prime no det o to so
18. Find 3rd max salary without using sub query.
19. Types of class loader in JVM.

Capgemini

1. Java 8 features .
2. @functional interface.
3. Abstract class vs interface.
4. Singleton class
5. What is immutable class? Eg of immutable class in java.
6. String vs string buffer vs string builder
7. What is thread sole
8. Arraylist vs vector
9. How to make arraylist synchronized
10. Internal working of hashmap.
11. Spring vs springboot
12. How you connect with database in springboot

13. Default server of springboot
14. Can you change the server
15. Have you ever got the error like server port B already in use? How you resolved it
16. What is hashset
17. What is monolith architecture

Wednesday

Kloud Partal

1. Advantages of springboot
2. What is constructor
3. Arraylist vs linkedlist
4. Hashtable vs concurrent hashmap
5. Depending management
6. What is maven? How you configured moven
7. @ request pardon & @ path variable
8. Overloading & overriding.
9. What is SQL & my SQL
10. What is "as" in SQL
11. JPA vs hibernate vs spring data JPA
12. What B d/w database of database table.

Cognizant

1. How can you change server no .
2. Do you, use____ file.
3. Spring actuators
4. Spring JPA @ table
5. @ entity, @ colomn, QId, (all scenario types)
6. d/w. @ Id vs @ column,
7. how you stare multiple data in hibernate.
8. Advantages of JDBC
9. How do you perform queries in hibernate
10. @ repository? Where did you used in project.
11. Commit of rollback? Used in project.
12. Server slates (200, 404, 500)
13. @ restcontroller
14. @ get yapping vs @ post mapping.
15. Get vs post
16. Disadvantages of get.
17. Why usl is not exposed in post.
18. @ Query param.
19. If these are two numbers in vrl how you will get that.

20. How you authenticate application.
21. How you deployed the project.
22. Dependency management.
23. How you manage the dependencies
24. Which serves you used to deploy (not tomcat)
25. Asked so many quest on deployment even the I told I am not the part of deployment.
26. Disadvantages of micloservices
27. Monolith arch lure.

Virtisa (Ist round)

1. Singleton class ? write program for this.
2. In the given string covert the different characters.
3. What is concurrent hashmap?
4. How you configure hibernate.
5. What are different application servers.
6. Java 8 features.
7. What are intermediate & terminal in stream
8. Give a scenario where synchronized can used.
9. What is dependency injection of types to perform injection.
10. What is IOC
11. Using stack how you perform quench
12. In which scenario inread class or runnable info face is suitable.
13. 2nd max salary in SQL.

Tech Square (wipro)

1. Advantages of oops
2. What is overriding & overloading
3. What is abstract class
4. Of there is a abstract class & the implementation of abstract class so how to call the method.
5. Data boxing of data unboxing
6. What is arraylist
7. d/w arrcylist & likedlist.
8. How arraylist increase the size.
9. In which scenario we should use arraylist of linkedlist.
10. d/w set & list
11. d/w threeset & hashes
12. how the hashset internally works.
13. d/w ‟ = =” & ‟ equals”
14. d/w thread of process
15. which is should we prefers tread class or runnable interface.
16. How thread will communicate with each other.

17. What is wait( ) of sleep ( )
18. Where this method are present? Why this method are in object class.
19. If we are using h.start ( ) two times what will hoppen.
20. Which servers comes by default with SB.
21. How the change the part.
22. How year connecting with database.
23. How mapping happening in hibernate.
24. Gives me the ex of queries which years written in project.
25. One inner join question
26. What is group by & order by.
27. Scope of bean? Default scope
28. How to change the scope.
29. @auto configuration.
30. What type of security using in SB.

MERCEDESE. BENZ

1. What is need of static block.
2. What is initialize block
3. What is immutability means.
4. Why sting is immutable.
5. How to create the immutable class.
6. If you have any immutable reference in year class how you handle .
7. What is functional interface.
8. d/w map () & flatmap () in stream
9. what is reduce () method
10. what is date APIS
11. what is optional class
12. how to call a default par static method of interface from other class.
13. What is abstract method & how to call.
14. Internal walking of linked list.
15. Custom code of linkedlist.
16. Scope of bean.
17. @Enable auto configuration
18. @sringboot Application
19. Advantages of springboot
20. What is SB starter POM.
21. How to usc jetty instead of tomcat.
22. How to test webservices.
23. One API is Secure then how you test.
24. How to implement circuit breaker.
25. d/w monolith & microservices

26. what is eureka serves
27. security implementation d/w post & patch
28. d/w post & patch
29. what is idempotenary .
30. what is transient
31. what is serialization & how to implement.
32. d/w get( ) & load ( )
33. how to implement second level caching.
34. How the instances are created in hibernate.
35. How you handle the exception in SB
36. What is out wiring & its types.
37. @qualifies.
38. Embedded contains supparled by SB.
39. Without restarting the serves how to reflect the change in SB.
40. How to write code far webservices.

Orate

1. Reverse the string – I/P:- sai
   o/P:- ias

2. I/P:- 123
   O/p:- one hundred twenty three.

3. String str = "index",
   SOP (str. Charat (2): - o/p:-d

4. Integer a = 5 ;
   Integer b = 5;
   If (a= b) £
   S.O.P (true) ; - o/p:- true

   £ else £

   S.O.P (false);

<u>Collabra</u>

1. Immutable concept & how to create it.
2. What is concurrent modification exception
3. What is fail fat & failsafe iterates
4. Reverse the string using recursion.

5. How you created springboot project
6. Types of mapping.
7. Checked exception & unchecked exception.

No Broker (Product Base Company)

1. Explain about year project & flow of project & so many related to project.
2. Garbage collection.
3. How you used quircs in spring boot.
4. Types of memories
5. Serialization & deserialization.
6. If we make parent class serialized does child class get serialized .
7. Singleton program
8. Static class.
9. Internal working of hashset.
10. Synchronized keyword.
11. Two DSA questions
12. Volatile Keyword.

Impetus

1. Last project & worked on & technologies used & roles.
2. New features in Java 8.
3. What is optional class.
4. Methods available in stream.
5. D/w function & predicate.
6. If there is user-defined class called employee & it as instance of age of name then How to sort according to the age.
7. Collections
8. Comparable & comparator.
9. If we have list of employee & it have ID, name& age, we need to sort according to name & of name is equal then compare with age.
10. Program – frequency of characters in the given string.
11. Internal working of Hashmap.
12. Does Hashmap allow null
13. d/w Hashmap & Hashtable.
14. How to achieve abstraction.
15. In rows/in row d/w
16. Arraylist vs linkedlist.
17. Can we override static method & can we overload the static method.
18. How to create immutable class.
19. Rules of construction.

20. Why constructor is available in abstract class
21. Wrapper classes.
22. What is class loader.
23. What is string pool.
24. What is heap memory.
25. d/w this & super keyword.
26. d/w abstract & interface.
27. Transient & volatiles keyword
28. What are the ways to create thread.
29. d/w wait ( ) & sleep ( )
30. Dependency Injection.

Mouri tech

1.what is functional

interface 2.@qualifier

3. @rest controller

4. sort elements

program's 5.pesudo code

on rest controller 6.why

string is immutable

Difference b/w list and

linked list

Technology we

know Oops

concept

Can we start the tread

twice Can we inherit

static member Internal

working of hashmap

Transient keyword

What is

volatile

Multicatch

blocks

Questions based on try finally

block Scenario based

Questions

2nd maximum salary

Find a vowels from the given

string Types of object

Deloitte

What is functional

interface What is

stream API

Difference between hashmap and

hash table Filter program in steam

API

Difference between java 7 and java 8

What are session

variables What is

session factory What

is bean factory

What to create bean in spring boot application

What is difference between@primary and

@qualifier Difference between@controller

and @Restcontroller What is

@controllerAdvice

How to handle exception in spring boot

application Difference between monolithic

and micro services

What is the procedure to communicate different

modules Use of RestTemplet

What is the use of repository

What all strategies can be followed for

deployment What Is Eureka

What is PACT and

OAUTH What is

idempotent

What is API gate way

How to run two modules at a time

What all configurations can be done in

application.properties What tools used for

deployment

Explain about spring bean life

cycle How to sort in data base

Why it is adviced to use hibernate instead

of JDBC what is postman

Http methods

How to write a URL in Post

man Difference between

HTTP AND STTP

Mouri tech

What is stream

Api Stream Api

methods

How to sort in stream api

Where have you used stream api in your

project What is class loader

Types of class loader and explain each of

them What is rt jar file in jvm

rt jar file real life example where you used every day

Topmost exception explain types of compile time and

runtime exception Daemon thread

Scenario based question on daemon

thread What is searilisation explain

briefly

How to go from one jsp to

another How to change

tomcat server

@componentscan

Spring actuator ? Explain

briefly And many more I

forgot

MERCEDES BENZ

What is the difference that u get u see in interface befor and

after version 8 Stream API

Serialisation

Thread life cycle

What is object

class Exception

hierarchy

How to get customized

exception Armstrong

number program

Concurrent hashmap

Difference between spring and

spring boot @value

@path param nd @query

param @RequestBody

@RequestMappi

ng Spring

actuator Spring

Cloud

What data base u

used Data base

view

Why micro services is not

preferred What u know about

web services What is REST

API cache

Write the structure of url that to use in

postman What all operations can be

performed using postman Do u have any

idea about cloud AWS etc.

How UI used for front end in your

project How to write query in

hibernate

Infinite solutions

What all technologies used in your

project Difference between spring

and spring boot Difference

between@Autowired and @Bean

Explain the flow of your project

What all annotations used

Why we have put method though we can update using

post method What is 200 400 404 and 500 errors

What pattern used in your project

Tell me how you created bean using singleton pattern in project What is MVC architecture

Explain the flow of MVC

architecture What is dispatcher

servlet

Explain oops

concepts Dead

lock

What is collection

Why you didn't used java 8 features in your project

Cognizant

What all technologies u used in your

project Difference between Hibernate

and JPA Spring security

Explain all layers used in

project @Controller and

@RestController

Write a code for consuming and exposing web

services Write code for email sending services

How to generate pdf

What dependency u added to get JSON object

What is persistence

Write a query to get 20 records

from table Instead of SQL what you

have in hibernate

TCS

What is optional

class Instance

variables

Difference between Stream api and

collection Functional interfaces

Lambda

expression

Garbage

collection

Serialisation

Synchronize

keyword SQL

queries

Spring boot life cycle

How to implement web services

Difference between@controller and

@restcontroller How to change port number

Difference between string buffer and string builder

Cognizant 2nd round

What is multiple inheritance

What is compile and run time

polymorphism What is package

What is type casting

How to call constructor from another

constructor How to get threads in program

What is thread join

Difference between wait and

sleep What is boxing

Difference between hashmap and

set What all commands u know in

SQL

How to add two table and write it's query (Foreign key)

If I have a employees table how to get the total count

write query How to connect our eclipse with data base write

code

How to do crud operation in hibernate. Session factory

code What we create application using micro services

What all annotations u know in spring boot

How to create database schema write complete

code Difference between spring boot and spring

Spring Actuators

1. Can u tell me the procedure for connecting our spring boot application with data base Explain JDK, JRE and JVM?

2. Explain public static void main(String args[]) in Java
3. Why Java is platform independent?
4. Why Java is not 100% Object-oriented?
5. What are wrapper classes in Java?
6. What are constructors in Java?
7. What is singleton class in Java and how can we make a class singleton?
8. What is the difference between Array list and vector in Java?
9. What is the difference between equals() and == in Java?
10. What are the differences between Heap and Stack Memory in Java?
11. What is Polymorphism?
12. What is runtime polymorphism or dynamic method dispatch?
13. What is abstraction in Java?
14. What do you mean by an interface in Java?
15. What is the difference between abstract classes and interfaces?
16. What is inheritance in Java?
17. What are the different types of inheritance in Java?
18. What is method overloading and method overriding?
19. Can you override a private or static method in Java?
20. What is multiple inheritance? Is it supported by Java?
21. What is encapsulation in Java?
22. What do you mean by aggregation?

23. What is composition in Java?

24. What is a marker interface?

25. What is a constructor overloading in Java?

26. <u>Servlets – Java Interview Questions</u>

27. What is a servlet?

28. What are the differences between Get and Post methods?

29. What is Request Dispatcher?

30. What is the life-cycle of a servlet?

31. How does cookies work in Servlets?

32. What are the different methods of session management in servlets?

33. <u>JDBC – Java Interview Questions</u>

34. What are the steps to connect to a database in java?

35. What is the difference between execute, executeQuery, executeUpdate?

36. <u>Spring – Java Interview Questions</u>

37. What is Spring?

38. Tell some of the important annotations ?(ex.@Auitowired,@Qualifier)

39. Explain Bean in Spring and List the different Scopes of Spring bean.

40. Write a program for a thread safe singleton class?

41. What is autowiring in Spring? What are the autowiring modes?(modes ex. byName,byType).

42. How to handle exceptions in Spring MVC Framework?(@ExceptionHandler).

43. Spring v/s SpringBoot?

44. Which one will you prefer among spring and springboot to create a program from scratch?

45. <u>Hibernate-Interview Questions</u>

46. What is Hibernate Framework?

47. What are the differences between get and load methods?

48. What are the advantages of Hibernate over JDBC?

49. What is JPA can you directly implement it?

50. JSP – Interview Questions

51. JSP lifecycle?

52. What are the JSP implicit objects?

53. What are the different tags in JSTL?

54. Explain the jspDestroy() method.

55. Exception and Thread - InterviewQuestions

56. What is the difference between Error and Exception?

57. How can you handle Java exceptions?

58. What are the differences between Checked Exception and Unchecked Exception?

59. Checked Exception?

60. Define Threads and its types?

61. Will the finally block get executed when the return statement is written at the end of try block and catch block as shown below?

62. Thread life cycle?

63. Final v/s finally v/s finalize ?

64. What are the differences between throw and throws?

65. What is exception hierarchy in java?

66. How to create a custom Exception?

67. What is a finally block? Is there a case when finally will not execute?\

68. What is synchronization?

69. Can we write multiple catch blocks under single try block?

70. What is OutOfMemoryError in Java?

71. What is a Thread?

72. What are the two ways to create a thread?

73. Garbage collectors in Java?

74. **Collections-Interview Questions**

75. Difference btw Collection and Collections?

76. Collections full hierarchy?

77. ***Learn all the differences btw all types of List,Set,Map very nicely they can ask any of the differences ?***

78. Can you call a constructor of a class inside another constructor?

79. How is the creation of a String using new() different from that of a literal?

80. Why is synchronization necessary? Explain with the help of a relevant example.

81. What are the differences between Heap and Stack Memory in Java?

82. What is JIT compiler in Java?

83. What are access modifiers in Java?

84. What is an object in Java and how is it created?

85. What is Object Oriented Programming?

86. What are the main concepts of OOPs in Java?

87. What is the difference between a local variable and an instance variable?

88. What is an infinite loop in Java? Explain with an example.

89. What is Java String Pool?

90. Differentiate between static and non-static methods in Java.

91. What is constructor chaining in Java?

92. Difference between String, StringBuilder, and StringBuffer.

93. What is a classloader in Java & Types?

94. Why Java Strings are immutable in nature?

95. What is the difference between an array and an array list?

96. collection hierarchy below go throught all of them i have attached the image below.

97. Internal Algorithm working of Hashmap?

98. Define webservice and microservices briefly?

99. What methods were you using in REST?

100. Methods of Hibernate?

101. Xml v/s JSON?

102. Explain System.out.println();?

Miscelleneous Question

1. Classnotfound Exception v/s Noclassdef found Exception?

2. Intermediate and Terminal operations in stream?

3. Groupby & orderby?

4. Delete v/s Drop?

5. SIB v/s IIB?

6. Steps to create immutable class in java?

7. Map v/s FlatMap?

8. Reduce() method?

9. What is spring boot starter?

10. Spring Actuators?

11. Status codes of postman?

12. Different errors codeslike 404,400,500,200?

13. Lazy loading v/s Eager loading?

14. Iterators and types?

15. List iterator?

16. Session, session factory?

17. Spring MVC?

18. JPA nnotations?

19. Stream API with example?

20. Microservices v/s Monolith architecture ?

Tips:-

1) In every interview they will just focus on your core java level (90 percent questions will come on core java only, so read core java notes atleast 5 to 10 times) and they will ask 2 to 3 questions on spring boot and 2 to 3 questions related to your project, rear case they will ask questions on SQL that's it…

2) Always read the concept like (what, why, where, when) it will really helpful you to tackle cross questions which are asked by interviewer example – inheritance (what is inheritance, why did they introduced in java, where have to used in our project, when we have to use this concept practically)

3) Before attending the interview you ask them to share the job description… read that job description.. prepair according to job description- because in JD they clearly mentioned like we are looking for a candidate like know html, css javascript-that means questions will come on these things only you should prepare on these.

4) Don't study in last minute to the interview… finish your revisions before half an hour.. otherwise you will be nerves sometimes, difficult to remember the answer… so that be calm and be confidence

5) While answering the questions don't do hurry burry…. Say the answer properly and slowly…and be bold and confident while giving the answer.

6) If you rally don't know the answer directly say sorry sir I don't about it definitely I will learn about this for sure

7) For example they ask what is stream api-assume that you given the answer .. the next question they will ask write a program on this or where did you used in your project…to escape these kind of questions directly say sorry sir I didn't use this concept in our project..i just aware of this concept..

   (read all the concept and understand each concept which are taught by Pankaj Sir but…These are the fixed repeated questions you can expect in every interview (my experience)

   1) Explain oops concept
   2) Explain were did you used each oops concepts in your project
   3) Diff between this and super keywords
   4) Diff between comparable and comparator
   5) Dif between overload and override
   6) Diff between interface and abstract class
   7) Diff between hasmap and hashtable
   8) Diff array list and linked list
   9) diff between array and arraylist
   10) All java 8 features (default, lamda, functional interface and stream api)
   11) Diff between spring and springbootm
   12) Explain dependency injection
   13) Explain roles and responsibilities
   14) Roles and resp.. –you should read to explain each and every points which you have mentioned in your resume)

       (in these above differences only definitions are not enough.. you should ready to explain like for example when we have use comparable and when we have to use comparator)

These below are not fixed questions but you can expect the questions on

In SQL

1) What is the query to find 2nd max or 3rd max or nth max salary in employee table
2) All joins were very important (definition + syntax you should know) (inner, left, right, full)
3) They can ask to write a query for create a table with 4 column names
4) Use of commit and rollback
5) All the keys were very imp (primary, foreien, unique)

In springboot and hibernate

1) All the annotations are very important (you should know the practical usage of these annotations)
2) What are the components of springboot
3) Explain hibernate mapping
4) Explain MVC architecture

Extra Questions you should know

1) Explain agile methodology
2) How you pass your code in your project
3) What is the challenges you faced in your project how you overcome from that challenge
4) How you were fixing the bugs explain the implementation of webservies in your project

Extra Questions you should know

1) Explain agile methodology
2) How you pass your code in your project
3) What is the challenges you faced in your project how you overcome from that challenge

4) how you were fixing the bugs

5) Explain the implementation of webservies in your project

6) Explain the implementation of email services in your project

7) What is spring actuator

8) Diff between controller and rest controller

9) What is bean and @bean

10) Explain spring ioc container

Every technical interview they might be ask these type of programs to write

1) Reverse a string (most imp)

2) Reverse a words (example- hi Manoj= manoj hi)

3) Swap a number with and without using third variable

4) All patterns program very very imp

5) You should ready to write a program that explaining oops concepts (Ex= overriding program, multilevel inheritance example program)

6) Array descending order

7) Hashmap or hashtable or list related program is very important

8) Fibonacci series program

9) Find prime and amstrong number between 0 to 100

1. Singleton

2 cout no of word in string

4. Reverse

string 4

find

vowels.

5.fibanno

ci series

6.palindro

me

7. How to make a traingle ya square

8. Prime no.

9. Armstrong number

10 cout 2 swap without using 3rd variable

Cgi

1.oops concept

2.thread life cycle

3.mvc architecture

4.collection

frameworks

5.swap two elements without 3rd

element 6.algorithm for fibanocii

7. algortithm for prime number

8. what is supermost class in exception

Newgen technologies

1.differnce b/w this keyword and super

keyword 2.what is inheritance

3.Scenario based ques on inheritance concept

4.Try and catch block scenario

5.joins

6. Types of joins

7. Did you know about JavaScript

8.Primary key, foreign key
Maveric systems

1.mvc

architecture

2.agile process

3.where did u store the

code 4.java 8 features

5.life cycle of

thread 6.oops

concept

7. Why we use hibernate

8.string buffer v/s string builder v/s

string 9.spring Acutator

10.where did u use web services in your project

Core Java

- Oop's concepts
- Java 8 features / lambda's syntax
- Access Specifies
- Exceptions
- Thread life cycle
- Keywords super, throw, throws
- Comparator/comparable
- Fail safe/ fail fast
- Method overloading /overing
- Array / Array list
- Hashmap / Hashtable
- Jok / JRF

- Notify / notify ace
- Serialization / synchrization
- Equal / = =
- List / set/map

Advanced Java

- served life cycle
- java bean scope
- agile serum proceeds
- Spring MVC architecture
- Project related questions
- Defects tracking & Solving
- Annotations
- Hibernate
- @controller & fast controller
- ORM
- JPA
- Session / session factory
- JDBC / hibernate
- Request dispatcher
- Feature of spring boot
- spring IOC contained
- spring security

SQL

- Toin
- Truncate
- Max salary / Top 2 salary / updata salary/delete salary
- Primary key / foreign key

Which is better thread class or runnable interface?