Sample Interview Question

Basics

-----------------------------------

Explain JDK, JRE and JVM?

What is difference between Class and object?

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

Why Java is platform independent?

Why Java is not 100% Object-oriented?

What are static members?

When to create static variables?

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

What are properties of OOPs?

What is difference between Instance variable and local variable?

What is use of Super keyword?

What is different access modifiers and non access modifiers?

What is the hashCode()?

Constructor

What are the Rules for defining a constructor?

What is a No-arg constructor?

What is the use of Private Constructors in Java?

What is Constructor Chaining in Java?

Can we have a Constructor in an Interface?

Can we have both Default Constructor and Parameterized Constructor in the same class?

Can an abstract class in Java have a constructor?

Why constructors cannot be final in Java?

Collections

What is the Collection framework in Java?

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

What is ArrayList in Java?

Differentiate between Iterator and ListIterator

Explain override equals() method

What is the difference between Comparable and Comparator?

How Arraylist is different form linked list?

What is Hasmap?

How Hashmap stores key and value pair?

Explain the method to convert ArrayList to Array and Array to ArrayList

Explain the basic interfaces of the Java collections framework

What is linked list?

Differentiate between Collection and Collections

What is the difference between failfast and failsafe?

What is the difference between Set and Map?

What is difference between HashSet and TreeSet?

Explain map. entry In Map

Abstract class and Interface

Can you create an instance of abstract class?

Is it necessary for an abstract class to have an abstract method?

Difference between abstract class and interface in Java?

What is Concrete method in Java?

Is abstract class allow to define private, final, static, and concrete methods?

Is it possible to achieve multiple inheritance through interface?

Is it possible to achieve multiple inheritance through abstract class?

What will happen if we do not override all abstract methods in subclass?

String

What is the difference between equals() and == in Java?

Is String a keyword in Java?

Is String a primitive type or derived type?

In how many ways you can create string objects in Java?

What is string constant pool?

What do you mean by mutable and immutable objects?

Why StringBuffer and StringBuilder classes are introduced in Java when there already exist String class to represent the set of characters?

How do you convert given string to char array?

Where exactly string constant pool is located in the memory? -Heap

What is string intern?

What is the similarity and difference between StringBuffer and StringBuilder class?

Multithreading

What is Thread?

What is difference between Multithreading, MultiTasking?

What are ways to create a thread in java?

Thread vs Runnable which is better approach to create a thread?

What are differences between thread and process?

What are differences between Sleep and wait in java?

Define states of thread in java?

Can we call run method directly to start a thread?

Can we start a thread twice in java?

What is Synchronization?

What is need of Synchronization?

Serialization

What is Serialization?

What is marker interface?

How to serialize an object and deserialze the object?

Garbage Collections

List out benefits of generic collection

What is garbage collection?

How to do you check for exceptions in Junit?

File/IO

Explain about FileI/O api?

What is difference between inputReader and FileInputStream?

What is difference between outputReader and FileOutputStream?

Java 8

What features of Java 8?

What do you mean by functional interface?

What is significance of Functional interface?

What are lambdas?

What are stream?

List the operations in streams?

Logging

What is Logging?

How Logging is significant?

What are difference levels of Logging?

Unix

What is Kernel?

What is Shell?

What are some common shells and what are their indicators?

Differentiate relative path from an absolute path.

Commands to do following operations

- Create a file

- Move a file

- rename a file

- create a directory

- Remove a directory

What is piping?

Define filesystem in unix?

What is Operating System?

Explain the architecture of Unix?

What is Package Manager?

What are file permission in UNIX?

Exception

\_\_\_\_\_\_\_\_\_\_\_\_

What is an exception?

How the exceptions are handled in java? OR Explain exception handling mechanism in java?

What is the difference between error and exception in java?

Can we keep other statements in between try, catch and finally blocks?

Can we write only try block without catch and finally blocks?

What is OutOfMemoryError in java?

What are run time exceptions in java. Give example?

Can we keep the statements after finally block If the control is returning from the finally block itself?

Does finally block get executed If either try or catch blocks are returning the control?

What is the use of throws keyword in java?

How do you create customized exceptions in java?

What are chained exceptions in java?

 Give some examples to checked exceptions?

 Give some examples to unchecked exceptions?

Maven

What is Maven ?

What do you mean by POM.xml?

What is full form of POM?

What is lifecycle in maven?

What is difference between local repository, central repository and remote repository?

Design Pattern

What is design pattern?

Why do you need design pattern?

What are type of design pattern?

What do you understand by Singleton Design pattern?

What do you mean by Factory Design Pattern?

What are benefits of using Factory Deign Pattern?

AWS

What is AWS?

What is EC2 ?

What is EBS?

How will you define the AMI?

What is Security Group?

What is AWS RDS?

TDD and Junit

What is TDD?

What do you mean by a testing framework?

Define few annotations that you have in Junit?

What does the assertEquals() to do?

Explain about few annotations in Junit 5.

SQL

What is Database?

What is schema?

What are DDL,DML , DCL , TCL and list the commands which belongs to these category?

What is Primary key?

What is Foriegn key?

What do you mean by ACID Properties?

What are different types of join?

What is difference between Inner join and outer join?

What are views and its advantages?

What are indexes?

What are Set Operations in SQL?

What is difference between UNION and UNION ALL?

What is difference between Minus and Intersect?

Why do you need index?

What are types of index?

What is concept of Normalization?

What are steps of Normalization?

What do you mean by Transitive dependency?

What is Table relationship?

What are procedures and Functions?

JDBC

What is JDBC?

Why do you need JDBC?

What is JDBC API?

What are different types of JDBC Driver?

What are interfaces in JDBC API?

What is difference between Statement and Prepared Statement?

What does the resultSet?

How to iterate a resultset?

What is use of try with resource?