**Java interview question .**

**Q. Is Empty Java file name a valid source file name ?**

Yes , save your java file by java only , compile it by javac java and run by java yourclassname Let's take a simple example

**Q. What if I write static public void instead of public static void ?**

Program compiles and runs properly .

**Q. What is constructor ?**

**Q. What is the purpose of default constructor ?**

The default constructor provides the default values to the objects . The java compiler creates default constructor only if there is no constructor in the class

**Q.Can you make a constructor final ?**

NO

**Q. What is static variable ?**

**Q. What is static method:**

**Q. Can we execute program without main () method?**

YES, static block

**Q. What if the static modifier is removed from the signature of the main method?**

Program compiles. But at runtime throws an error NoSuchMethodError

**Q. What is this in java?**

It is a keyword that that refers to the current object

**Q. What is method overloading?**

If a class have multiple methods by same name but different parameters , it is known as Method Overloading . It increases the readability of the program

**Q. Why method overloading is not possible by changing the return type in java ?**

Because of ambiguity

**Q. Can we overload main ( ) method ?**

Yes, you can have many main () methods in a class by overloading the main method.

**Q. What is method overriding:**

If a subclass provides a specific implementation of a method that is already provided by its parent class, it is known as Method Overriding. It is used for runtime polymorphism and to provide the specific implementation of the method

**Q. Can we override static method?**

No, you can't override the static method because they are the part of class not object.

**Q. What is final variable?**

If you make any variable as final, you cannot change the value of final variable

**Q. Can you declare the main method as final?**

Yes, such as, public static final void main (String [] args)).

**Q. What is Exception Handling?**

Exception Handling is a mechanism to handle runtime errors. It is mainly used to handle checked exceptions.

**Q. What is difference between Checked Exception and Unchecked Exception ?**

1 ) Checked Exception The classes that extend Throw able class except RuntimeException and Error are known as checked exceptions e.g.IOException , SQLException etc. Checked exceptions are checked at compile - time.

2 ) Unchecked Exception The classes that extend Runtime Exception are known as unchecked exceptions e.g. Arithmetic Exception , NullPointerException etc. Unchecked exceptions are not checked at compile - time.

**Q. Is it necessary that each try block must be followed by a catch block ?**

It is not necessary that each try block must be followed by a catch block. It should be followed by either a catch block OR a finally block. And whatever exceptions are likely to be thrown should be declared in the throws clause of the method

**Q. Is there any case when finally will not be executed ?**

Finally block will not be executed if program exits ( either by calling System.exit ( ) or by causing a fatal error that causes the process to abort )

**Q. What is the basic difference between string and stringbuffer object ?**

String is an immutable object StringBuffer is a mutable object

**Q. What is the difference between StringBuffer and StringBuilder ?**

StringBuffer is synchronized whereas String Builder is not synchronized

**Q. What is the purpose of the Runtime class ?**

The purpose of the Runtime class is to provide access to the Java runtime system

**Q. What is reflection ?**

Reflection is the process of examining or modifying the runtime behaviour of a class at runtime . It is used in

IDE ( Integreted Development Environment ) e.g. Eclipse , MyEclipse , NetBeans

Debugger

Test Tools etc.

**Q. Can you access the private method from outside the class ?**

Yes , by changing the runtime behaviour of a class if the class is not secured .

**Q. What are wrapper classes ?**

Wrapper classes are classes that allow primitive types to be accessed as objects

**Q. What is a native method ?**

A native method is a method that is implemented in a language other than Java .

**Q. What is the purpose of the System class ?**

The purpose of the System class is to provide access to system resources .

**Q. What is singleton class ?**

Singleton class means that any given time only one instance of the class is present , in one JVM .

**Q. What is multithreading ?**

Multithreading is a process of executing multiple threads simultaneously . Its main advantage is :

-Threads share the same address space .

-Thread is lightweight

-Cost of communication between process is low

**Q. What is thread ?**

A thread is a lightweight subprocess . It is a separate path of execution . It is called separate path of execution because each thread runs in a separate stack frame .

**Q. What is synchronization ?**

Synchronization is the capabilility of control the access of multiple threads to any shared resource . It is used :

**1.To prevent thread interference .**

**2. To prevent consistency problem .**

**Q. What is the purpose of Synchronized block ?**

-Synchronized block is used to lock an object for any shared resource Scope of synchronized block is smaller than the method

**What is execution plan in MySQL?**

The execution plan defaults to Visual Explain , but it also includes a Tabular Explain view that is similar to what you see when executing EXPLAIN in the MySQL client. For information about how MySQL executes statements, see Optimizing Queries with EXPLAIN.

**What is a ClassLoader?**

A classloader in Java is a subsystem of Java Virtual Machine, dedicated to loading class files when a program is executed;

What are the Memory Allocations available in JavaJava?

Java has five significant types of memory allocations.

Class Memory

Heap Memory

Stack Memory

Program Counter-Memory

Native Method Stack Memory

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

Stack is generally used to store the order of method execution and local variables. In contrast, Heap memory is used to store the objects. After storing, they use dynamic memory allocation and deallocation.

**What is an Association?**

An Association can be defined as a relationship that has no ownership over another.

**What is Object Cloning?**

An ability to recreate an object entirely similar to an existing object is known as Object Cloning

**Define Wrapper Classes in Java.**

In Java, when you declare primitive datatypes, then Wrapper classes are responsible for converting them into objects(Reference types).

**Define Singleton Classes in Java.**

In Java, when you make the constructor of a class private, that particular class can generate only one object.

**Define package in Java.**

The package is a collective bundle of classes and interfaces and the necessary libraries and JAR files. The use of packages helps in code reusability.

**Explain Java String Pool.**

A collection of strings in Java's Heap memory is referred to as Java String Pool.

**What is an Exception?**

An [Exception in Java](https://www.simplilearn.com/tutorials/java-tutorial/exception-handling-in-java) is considered an unexpected event that can disrupt the program's normal flow. These events can be fixed through the process of Exception Handling.

**What is a JIT compiler?**

JIT compiler refers to Just in Time compiler. It is the simplest way of executing the computer code that takes in compilation during the execution of a program rather than before performance. It commonly uses bytecode translation to machine code. It is then executed directly.

**What are Brief Access Specifiers and Types of Access Specifiers?**

Access Specifiers are predefined keywords used to help JVM understand the scope of a variable, method, and class. We have four access specifiers.

Public Access Specifier

Private Access Specifier

Protected Access Specifier

Default Access Specifier

**How many types of constructors are used in Java?**

There are two types of [constructors](https://www.simplilearn.com/tutorials/java-tutorial/constructor-in-java) that are used in Java.

Parameterized Constructors: Parameterized constructor accepts the parameters with which users can initialize the instance variables. Users can initialize the class variables dynamically at the time of instantiating the class.

Default constructors: This type doesn’t accept any parameters; rather, it instantiates the class variables with their default values. It is used mainly for object creation.

Explain the difference between >> and >>> operators.

Although they look similar, there is a massive difference between both.

>> operator does the job of right shifting the sign bits

>>> operator is used in shifting out the zero-filled bits

**Brief the life cycle of an applet.**

The life cycle of an applet involves the following.

Initialization

Start

Stop

Destroy

Paint

**What is the difference between System.out, System.err, and System.in?**

System.out and System.err represent the monitor by default and thus can be used to send data or results to the monitor. System.out is used to display normal messages and results. System.eerr is used to display error messages. System.in represents InputStream object which by default represents standard input device, i.e., keyboard.

**What is Servlet in Java with example?**

Simply put, a Servlet is a class that handles requests, processes them and reply back with a response. For example, we can use a Servlet to collect input from a user through an HTML form, query records from a database, and create web pages dynamically.