Java Viva Question

1)Why do we use interface in java??

It is used to achieve total abstraction. Since java does not support multiple inheritance in case of class, but by using interface it can achieve multiple inheritance . It is also used to achieve loose coupling.

What are type of operators??

Arithmetic Operators

Assignment Operators

Logical Operators

Relational Operators

Unary Operators

Bitwise Operators

Ternary Operators

Shift Operators

Arithmetic Operators in Java??

Arithmetic Operators are used to perform mathematical operations like addition, subtraction, etc.

Assignment Operators in Java??

An Assignment Operator is an operator used to assign a new value to a variable.

Relational Operators in Java??

These operators compare the values on either side of them and decide the relation among them.

Unary Operator in Java??

Unary operators are the one that needs a single operand and are used to increment a value, decrement or negate a value.

Bitwise Operator in Java??

Bitwise operations directly manipulate bits. In all computers, numbers are represented with bits, a series of zeros and ones. In fact, pretty much everything in a computer is represented by bits.

Ternary Operators in Java??

The ternary operator is a conditional operator that decreases the length of code while performing comparisons and conditionals. This method is an alternative for using if-else and nested if-else statements. The order of execution for this operator is from left to right.

Shift Operators in Java??

Shift operators are used to shift the bits of a number left or right, thereby multiplying or dividing the number. There are three different types of shift operators, namely left shift operator()<<, signed right operator(>>) and unsigned right shift operator(>>>).

What is overloading??

Overloading in Java is the ability to define more than one method with the same name in a class. The compiler is able to distinguish between the methods because of their method signatures.

Why do we need interface??

It is used to achieve total abstraction. Since java does not support multiple inheritance in case of class, but by using interface it can achieve multiple inheritance . It is also used to achieve loose coupling.

Overriding in Java??

Overriding is a feature that allows a subclass or child class to provide a specific implementation of a method that is already provided by one of its super-classes or parent classes. When a method in a subclass has the same name, same parameters or signature, and same return type(or sub-type) as a method in its super-class, then the method in the subclass is said to override the method in the super-class.

What is abstract class??

An abstract class is a class that is declared abstract —it may or may not include abstract methods. Abstract classes cannot be instantiated, but they can be subclassed.

Example of constructor??

No-Arg Constructor

Parameterized Constructor

Default Constructor

Buffered Reader syntax??

The BufferedReader class of Java is used to read the stream of characters from the specified source (character-input stream). The constructor of this class accepts an InputStream object as a parameter.

Instantiate an InputStreamReader class bypassing your InputStream object as a parameter.

Then, create a BufferedReader, bypassing the above obtained InputStreamReader object as a parameter.

Now, read data from the current reader as String using the readLine() or read() method.

What is private protected in java??

The private modifier specifies that the member can only be accessed in its own class. The protected modifier specifies that the member can only be accessed within its own package (as with package-private) and, in addition, by a subclass of its class in another package.

What is jvm??

A Java virtual machine is a virtual machine that enables a computer to run Java programs as well as programs written in other languages that are also compiled to Java bytecode.

Explain public static void??

The point from where the program starts its execution or simply the entry point of Java programs is the main() method

Difference between do and while loop??

In Java While loop, the condition is tested at the beginning of the loop, and if the condition is True, then only statements in that loop will be executed. So, the While loop executes the code block only if the condition is True.

In Java Do While loop, the condition is tested at the end of the loop. So, the Do While executes the statements in the code block at least once even if the condition Fails.

What is Class??

A class is a user defined blueprint or prototype from which objects are created. It represents the set of properties or methods that are common to all objects of one type.

What is data encapsulation??

Encapsulation in Java is a mechanism of wrapping the data (variables) and code acting on the data (methods) together as a single unit. In encapsulation, the variables of a class will be hidden from other classes, and can be accessed only through the methods of their current class.

What is data abstraction??

In Java, Data Abstraction is defined as the process of reducing the object to its essence so that only the necessary characteristics are exposed to the users.

What is inheritance in java??

Inheritance in Java is that you can create new classes that are built upon existing classes. When you inherit from an existing class, you can reuse methods and fields of the parent class.

What are types to input data??

Boolean, byte, char, short, int, long, float, and double.

Full Form of JDK and JRE??

Java Development Kit

Java Runtime Environment

Difference between jdk and jre??

JDK(Java Development Kit) is used to develop Java applications. JDK also contains numerous development tools like compilers, debuggers, etc.

JRE(Java Runtime Environment) is the implementation of JVM(Java Virtual Machine) and it is specially designed to execute Java programs.

What is default access modifier in java??

The default access modifier is also called package-private, which means that all members are visible within the same package but aren't accessible from other packages

Call by reference in java??

In Java "Call by Reference" means passing a reference (i.e. address) of the object by value to a method. … Thus, when we pass a variable of class type as an argument to a method, actually, a copy of a reference (address) to an object is passed by value to the method, not a copy of the object itself

Inheritance in java??

Inheritance in Java is a mechanism in which one object acquires all the properties and behaviors of a parent object. It is an important part of OOPs (Object Oriented programming system).

Types of inheritance in java??

There can be three types of inheritance in java: single, multilevel and hierarchical.

What is different type of statements??

Java supports three different types of statements: Expression statements change values of variables, call methods, and create objects. Declaration statements declare variables. Control-flow statements determine the order that statements are executed.

Do while loop???

Java do-while loop is called an exit control loop. Therefore, unlike while loop and for loop, the do-while check the condition at the end of loop body. The Java do-while loop is executed at least once because condition is checked after loop body.

Object in java??

A Java object is a member (also called an instance) of a Java class. Each object has an identity, a behavior and a state. The state of an object is stored in fields (variables), while methods (functions) display the object's behavior. Objects are created at runtime from templates, which are also known as classes.

What is error in java??

In Java, an error is a subclass of Throwable that tells that something serious problem is existing and a reasonable Java application should not try to catch that error

Package in java??

Package in Java is a mechanism to encapsulate a group of classes, sub packages and interfaces. Packages are used for: Preventing naming conflicts.

What is polymorphism in java??

Polymorphism in Java is the ability of an object to take many forms. To simply put, polymorphism in java allows us to perform the same action in many different ways

Q.What is JAVA?

Answer: Java is a high-level programming language and is platform-independent.

Java is a collection of objects. It was developed by Sun Microsystems. There are a lot of applications, websites, and games that are developed using Java.

Q.2) What are the features of JAVA?

Answer:

Features of Java are as follows:

OOP concepts

Object-oriented

Inheritance

Encapsulation

Polymorphism

Abstraction

Platform independent: A single program works on different platforms without any modification.

High Performance: JIT (Just In Time compiler) enables high performance in Java. JIT converts the bytecode into machine language and then JVM starts the execution.

Multi-threaded: A flow of execution is known as a Thread. JVM creates a thread which is called the main thread. The user can create multiple threads by extending the thread class or by implementing the Runnable interface.

Q.3) How does Java enable high performance?

Answer: Java uses Just In Time compiler to enable high performance. It is used to convert the instructions into bytecodes.

Q.4) Name the Java IDE's?

Answer: Eclipse and NetBeans are the IDE's of JAVA.

Q.5) What do you mean by Constructor?

Answer: Constructor can be explained in detail with enlisted points:

When a new object is created in a program a constructor gets invoked corresponding to the class.

The constructor is a method which has the same name as the class name.

If a user doesn't create a constructor implicitly a default constructor will be created.

The constructor can be overloaded.

If the user created a constructor with a parameter then he should create another constructor explicitly without a parameter.

Q.6) What is meant by the Local variable and the Instance variable?

Answer:

Local variables are defined in the method and scope of the variables that exist inside the method itself.

Instance variable is defined inside the class and outside the method and the scope of the variables exists throughout the class.

Q.7) What is a Class?

Answer: All Java codes are defined in a Class. It has variables and methods.

Variables are attributes which define the state of a class.

Methods are the place where the exact business logic has to be done. It contains a set of statements (or) instructions to satisfy the particular requirement.

Q.8) What is an Object?

Answer: An instance of a class is called an object. The object has state and behavior.

Whenever the JVM reads the “new()” keyword then it will create an instance of that class.

Q.9)What are the OOPs concepts?

Answer: OOPs concepts include:

Inheritance

Encapsulation

Polymorphism

Abstraction

Interface

Q.10) What is Inheritance?

Answer: Inheritance means one class can extend to another class. So that the codes can be reused from one class to another class. The existing class is known as the Super class whereas the derived class is known as a sub class.

Q.11) What is Encapsulation?

Answer: Purpose of Encapsulation:

Protects the code from others.

Code maintainability.

Q.12) What is Polymorphism?

Answer: Polymorphism means many forms.

A single object can refer to the super-class or sub-class depending on the reference type which is called polymorphism.

Q.13) What is meant by Method Overriding?

Answer: Method overriding happens if the sub-class method satisfies the below conditions with the Super-class method:

Method name should be the same

The argument should be the same

Return type should also be the same

The key benefit of overriding is that the Sub-class can provide some specific information about that sub-class type than the super-class.