

Interview on OOPS Java:

Ques: Why java is not 100% OOPS?

Ans: The use of primitive datatypes is not object-based, so the performance of the code will be maintained. To make them OO, we must use wrapper classes which will add extra overhead to the programmer.

Ques: Why pointers are not used in Java?

Ans:

(a) It is unsafe to use pointers in Java.

(b) Pointers will increase complexity and since Java is known for its simplicity, the use of pointers in Java is not recommended. Adding the concept of pointers will be contradicting then.

(c) Since Java JVM is responsible for memory allocation and garbage collection is automatic, it is not good to give the user access to control memory.

Ques: Why use the JIT compiler in Java?

Ans: Just-in-time compiler. As actual program code is first converted to bytecode using Javac and then the interpreter or JVM will convert it into the native machine language code, this process will be performance inefficient. Hence, JIT compilers are used to convert the bytecode into the native code or machine language code which the interpreter will execute.

The problem with the interpreter is that it will convert the bytecode line by line to the native code while the JIT compiler will convert the whole bytecode at a time into machine language code reducing time.

Ques: Why string is immutable in Java?

Ans:

- (a) String pool requires strings to be immutable otherwise shared reference can be changed from any place.
- (b) Security, because strings are shared on various media like file systems, networking, etc.

Ques: What is a marker interface?

Ans: The interface does not have any member variables and member functions.

Example: Serializable, cloneable, and remote.

Ques: Why marker interfaces are created?

Ans: Marker interfaces are created to provide more data (metadata) to the compiler about what the class does that implements that interface.

Ques: Does “finally” always execute in Java?

Ans: No! System. exit () and system crash are conditions in which the “finally” will not execute.

Ques: What methods does the Object class have?

Ans: clone (), equals(), finalize(), getClass(), hashCode(), toString(), notify(), notifyall(), wait().

Ques: Can you make a class immutable?

Ans: Following things will be done to make the class immutable:

- (a) Make the class final so that it cannot be extended.
- (b) Make all fields private so that direct access is not allowed.
- (c) Don't provide setter methods for variables.
- (d) Make all mutable fields final so that they cannot be reassigned.
- (e) Initialize all the fields via a constructor.
- (f) Perform cloning of objects in the getter methods so that any original object of the class will not get changed.

Ques: Can the child class inherit the constructor of the base class?

Ans: The child class will not inherit the constructor of the base class. Subclass will inherit the state and behavior in the form of methods and variables and not the constructors of the parent class.

Ques: What is the difference between Copy constructor and the Assignment operator in terms of object initialization?

Ans: Copy constructor allocates separate memory for both the objects (newly created and the existing one). While the assignment operator does not allocate new memory to the newly created objects.

NOTE: Composition in Java, singleton class in Java, and coupling in OOPS.