THE TOP 10 MOST FREQUENTLY ASKED JAVA INTERVIEW QUESTIONS

Q1: What is an immutable object? How do I create one?

An Immutable object is a one which cannot be modified after it has been created. The class should be marked as final, no object internals should be exposed, any objects passed into the constructor should be cloned, and any objects returned should be cloned too

Q2: What is the equals hashcode contract?

Two objects which are equal must have the same hashcode. Two objects with the same hashcode may or may not be equal.
If a.equals(b), then a.hashCode() == b.hashCode().
If a.hashCode() == b.hashCode(), a may or may not equal() b

Q3: What is a singleton?

A Singleton is a design pattern used when you want a single instance of an object in your entire application. You can create one by using a private constructor and exposing the instance using a static method.

Q4: What's the difference between finally, final and finalize?

final is a keyword that can be used on classes, methods or variables to denote that the value cannot be changed or overridden. finally is excuted at the end of a try catch block and is guaranteed to execute under normal circumstances. finalize is a method called on an object when it is being garbage collected. There is no guarantee that it will be ever executed so it's best not to rely on it.

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Q5: What is the difference between overloading and overriding?

Having multiple methods with the same name is method overloading. They can be differentiated as they will have different signatures, e.g. take different method parameters. Overriding is used when creating a subclass of a class and specifying your own functionality for the method by copying the method signature identically.

Q6: Is it possible to have a memory leak in Java?

Although Java memory is managed for us by the JVM it is still possible to have a leak. This happens when we keep hold of references to objects that are no longer needed, so they cannot be garbage collected. This could happen if we forget to remove old objects from a collection for example.

Q7: What is the difference between an interface and an abstract class?

An interface declares the contract for what methods an implementing class must have. It has no access modifiers (as they are public by default) and there are no implementations. An abstract class may or may not declare implementations for some or all methods, and may have non public methods. Objects can implement multiple interfaces but only extend 1 abstract class

Q8: How do I create a thread in Java?

There are two ways; you can either extend java.lang.Thread or by implementing java.lang.Runnable, and creating a new Thread using your newly created Runnable. Implementing Runnable is generally preferred.

Q9: What is the difference between .equals() and ==?

The equals method will check for equality based on whatever the implementation of equals is on that Object. The default implentation is to use ==, but is usually overriden to check equality based on an objects values. == checks that both refer to the same object.

Q10: What are the stack and the heap in Java?

Objects are created on the Heap whereas methods, and their primitive values and references to objects are created on the Stack. Each Thread has it's own Stack, and only that Thread can see variables on it's stack. The Heap is accessible by the entire application.

Good luck on your interview. Hopefully you've found this really helpful. If you're left wanting more amazing questions, along with great hints and tips on how to crush your upcoming interview then head over to the website