

Core Java Interview Questions and Answers



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What is the difference between a break statement and a continue statement?

A break statement results in the termination of the statement to which it applies (switch, for, do, or while). A continue statement is used to end the current loop iteration and return control to the loop statement.

What is the difference between a field variable and a local variable?

A field variable is a variable that is declared as a member of a class. A local variable is a variable that is declared local to a method.

What is the difference between a JDK and a JVM?

JDK is Java Development Kit which is for development purpose and it includes execution environment also. But JVM is purely a run time environment and hence you will not be able to compile your source files using a JVM.

What is the difference between a public and a non-public class?

A public class may be accessed outside of its package. A non-public class may not be accessed outside of its package.

What is the difference between a static and a non-static inner class?

A non-static inner class may have object instances that are associated with instances of the class's outer class. A static inner class does not have any object instances.

What is the difference between a while statement and a do while statement?

A while statement checks at the beginning of a loop to see whether the next loop iteration should occur. A do while statement checks at the end of a loop to see whether the next iteration of a loop should occur. The do while statement will always execute the body of a loop at least once.

What is the difference between an if statement and a switch statement?

The if statement is used to select among two alternatives. It uses a boolean expression to decide which alternative should be executed. The switch statement is used to select among multiple alternatives. It uses an int expression to determine which alternative should be executed.

What is the difference between method overriding and overloading?

Overriding is a method with the same name and arguments as in a parent, whereas overloading is the same method name but different arguments

What is the difference between the >> and >>> operators?

The >> operator carries the sign bit when shifting right. The >>> zero-fills bits that have been shifted out.

What is the difference between the Boolean & operator and the && operator?

If an expression involving the Boolean & operator is evaluated, both operands are evaluated. Then the & operator is applied to the operand. When an expression involving the && operator is evaluated, the first operand is evaluated. If the first operand returns a value of true then the second operand is evaluated. The && operator is then applied to the first and second operands. If the first operand evaluates to false, the evaluation of the second operand is skipped.

What is the difference between the prefix and postfix forms of the ++ operator?

The prefix form performs the increment operation and returns the value of the increment operation. The postfix form returns the current value all of the expression and then performs the increment operation on that value.

What is the difference between inner class and nested class?

When a class is defined within a scope of another class, then it becomes inner class. If the access modifier of the inner class is static, then it becomes nested class.

What is the impact of declaring a method as final?

A method declared as final can't be overridden. A sub-class can't have the same method signature with a different implementation.

What is the importance of static variable?

static variables are class level variables where all objects of the class refer to the same variable. If one object changes the value then the change gets reflected in all the objects.

What is the most important feature of Java?

Java is a platform independent language.

What is the purpose of declaring a variable as final?

A final variable's value can't be changed. final variables should be initialized before using them.

What is the range of the char type?

The range of the char type is 0 to 216 – 1 (i.e. 0 to 65535.)

What is the range of the short type?

The range of the short type is -(215) to 215 – 1. (i.e. -32,768 to 32,767)

What is the return type of a program's main() method?

void.

What is the return type of the main() method?

Main() method doesn't return anything hence declared void.

What is use of a abstract variable?

Variables can't be declared as abstract. only classes and methods can be declared as abstract.

What modifiers are allowed for methods in an Interface?

Only public and abstract modifiers are allowed for methods in interfaces.

What modifiers can be used with a local inner class?

A local inner class may be final or abstract.

What modifiers may be used with a top-level class?

A top-level class may be public, abstract, or final.

What modifiers may be used with an inner class that is a member of an outer class?

A (non-local) inner class may be declared as public, protected, private, static, final, or abstract.

What restrictions are placed on method overloading?

Two methods may not have the same name and argument list but different return types.

What restrictions are placed on method overriding?

Overridden methods must have the same name, argument list, and return type. The overriding method may not limit the access of the method it overrides. The overriding method may not throw any exceptions that may not be thrown by the overridden method.

What restrictions are placed on the location of a package statement within a source code file?

A package statement must appear as the first line in a source code file (excluding blank lines and comments).

What restrictions are placed on the values of each case of a switch statement?

During compilation, the values of each case of a switch statement must evaluate to a value that can be promoted to an int value.

What value does read() return when it has reached the end of a file?

The read() method returns -1 when it has reached the end of a file.

When can an object reference be cast to an interface reference?

An object reference be cast to an interface reference when the object implements the referenced interface.

When does the compiler supply a default constructor for a class?

The compiler supplies a default constructor for a class if no other constructors are provided.

When will you define a method as static?

When a method needs to be accessed even before the creation of the object of the class then we should declare the method as static.

Which characters may be used as the second character of an identifier, but not as the first character of an identifier?

The digits 0 through 9 may not be used as the first character of an identifier but they may be used after the first character of an identifier.

Which class is extended by all other classes?

The Object class is extended by all other classes.

Which Java operator is right associative?

The = operator is right associative.

Which non-Unicode letter characters may be used as the first character of an identifier?

The non-Unicode letter characters \$ and _ may appear as the first character of an identifier

Which object oriented Concept is achieved by using overloading and overriding?

Polymorphism.

Which package is imported by default?

java.lang package is imported by default even without a package declaration.

Why does Java not support operator overloading?

Operator overloading makes the code very difficult to read and maintain. To maintain code simplicity, Java doesn't support operator overloading.

Why is an Interface be able to extend more than one Interface but a Class can't extend more than one Class?

Basically Java doesn't allow multiple inheritance, so a Class is restricted to extend only one Class. But an Interface is a pure abstraction model and doesn't have inheritance hierarchy like classes (do remember that the base class of all classes is Object). So an Interface is allowed to extend more than one Interface.

Why is the main() method declared static?

main() method is called by the JVM even before the instantiation of the class hence it is declared as static.

Why isn't there operator overloading?

Because C++ has proven by example that operator overloading makes code almost impossible to maintain.