

JAVA - BUILT-IN EXCEPTIONS

Java defines several exception classes inside the standard package **java.lang**.

The most general of these exceptions are subclasses of the standard type `RuntimeException`. Since `java.lang` is implicitly imported into all Java programs, most exceptions derived from `RuntimeException` are automatically available.

Java defines several other types of exceptions that relate to its various class libraries. Following is the list of Java Unchecked `RuntimeException`.

Exception	Description
<code>ArithmeticException</code>	Arithmetic error, such as divide-by-zero.
<code>ArrayIndexOutOfBoundsException</code>	Array index is out-of-bounds.
<code>ArrayStoreException</code>	Assignment to an array element of an incompatible type.
<code>ClassCastException</code>	Invalid cast.
<code>IllegalArgumentException</code>	Illegal argument used to invoke a method.
<code>IllegalMonitorStateException</code>	Illegal monitor operation, such as waiting on an unlocked thread.
<code>IllegalStateException</code>	Environment or application is in incorrect state.
<code>IllegalThreadStateException</code>	Requested operation not compatible with current thread state.
<code>IndexOutOfBoundsException</code>	Some type of index is out-of-bounds.
<code>NegativeArraySizeException</code>	Array created with a negative size.
<code>NullPointerException</code>	Invalid use of a null reference.
<code>NumberFormatException</code>	Invalid conversion of a string to a numeric format.
<code>SecurityException</code>	Attempt to violate security.
<code>StringIndexOutOfBoundsException</code>	Attempt to index outside the bounds of a string.
<code>UnsupportedOperationException</code>	An unsupported operation was encountered.

Following is the list of Java Checked Exceptions Defined in `java.lang`.

Exception	Description
<code>ClassNotFoundException</code>	Class not found.
<code>CloneNotSupportedException</code>	Attempt to clone an object that does not implement the <code>Cloneable</code> interface.
<code>IllegalAccessException</code>	Access to a class is denied.
<code>InstantiationException</code>	Attempt to create an object of an abstract class or interface.
<code>InterruptedException</code>	One thread has been interrupted by another thread.
<code>NoSuchFieldException</code>	A requested field does not exist.

NoSuchMethodException

A requested method does not exist.