# 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.

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| **Sr.No.** | **Exception & Description** |
| 1 | **ArithmeticException**  Arithmetic error, such as divide-by-zero. |
| 2 | **ArrayIndexOutOfBoundsException**  Array index is out-of-bounds. |
| 3 | **ArrayStoreException**  Assignment to an array element of an incompatible type. |
| 4 | **ClassCastException**  Invalid cast. |
| 5 | **IllegalArgumentException**  Illegal argument used to invoke a method. |
| 6 | **IllegalMonitorStateException**  Illegal monitor operation, such as waiting on an unlocked thread. |
| 7 | **IllegalStateException**  Environment or application is in incorrect state. |
| 8 | **IllegalThreadStateException**  Requested operation not compatible with the current thread state. |
| 9 | **IndexOutOfBoundsException**  Some type of index is out-of-bounds. |
| 10 | **NegativeArraySizeException**  Array created with a negative size. |
| 11 | **NullPointerException**  Invalid use of a null reference. |
| 12 | **NumberFormatException**  Invalid conversion of a string to a numeric format. |
| 13 | **SecurityException**  Attempt to violate security. |
| 14 | **StringIndexOutOfBounds**  Attempt to index outside the bounds of a string. |
| 15 | **UnsupportedOperationException**  An unsupported operation was encountered. |

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

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| **Sr.No.** | **Exception & Description** |
| 1 | **ClassNotFoundException**  Class not found. |
| 2 | **CloneNotSupportedException**  Attempt to clone an object that does not implement the Cloneable interface. |
| 3 | **IllegalAccessException**  Access to a class is denied. |
| 4 | **InstantiationException**  Attempt to create an object of an abstract class or interface. |
| 5 | **InterruptedException**  One thread has been interrupted by another thread. |
| 6 | **NoSuchFieldException**  A requested field does not exist. |
| 7 | **NoSuchMethodException**  A requested method does not exist. |