| | [**Overview**](http://docs.google.com/overview-summary.html) | **Package** | Class | [**Use**](http://docs.google.com/package-use.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV PACKAGE**](http://docs.google.com/javax/lang/model/package-summary.html)   [**NEXT PACKAGE**](http://docs.google.com/javax/lang/model/type/package-summary.html) | [**FRAMES**](http://docs.google.com/index.html?javax/lang/model/element/package-summary.html)    [**NO FRAMES**](http://docs.google.com/package-summary.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

## Package javax.lang.model.element

Interfaces used to model elements of the Java programming language.

**See:**

[**Description**](#3znysh7)

| **Interface Summary** | |
| --- | --- |
| [**AnnotationMirror**](http://docs.google.com/javax/lang/model/element/AnnotationMirror.html) | Represents an annotation. |
| [**AnnotationValue**](http://docs.google.com/javax/lang/model/element/AnnotationValue.html) | Represents a value of an annotation type element. |
| [**AnnotationValueVisitor<R,P>**](http://docs.google.com/javax/lang/model/element/AnnotationValueVisitor.html) | A visitor of the values of annotation type elements, using a variant of the visitor design pattern. |
| [**Element**](http://docs.google.com/javax/lang/model/element/Element.html) | Represents a program element such as a package, class, or method. |
| [**ElementVisitor<R,P>**](http://docs.google.com/javax/lang/model/element/ElementVisitor.html) | A visitor of program elements, in the style of the visitor design pattern. |
| [**ExecutableElement**](http://docs.google.com/javax/lang/model/element/ExecutableElement.html) | Represents a method, constructor, or initializer (static or instance) of a class or interface, including annotation type elements. |
| [**Name**](http://docs.google.com/javax/lang/model/element/Name.html) | An immutable sequence of characters. |
| [**PackageElement**](http://docs.google.com/javax/lang/model/element/PackageElement.html) | Represents a package program element. |
| [**TypeElement**](http://docs.google.com/javax/lang/model/element/TypeElement.html) | Represents a class or interface program element. |
| [**TypeParameterElement**](http://docs.google.com/javax/lang/model/element/TypeParameterElement.html) | Represents a formal type parameter of a generic class, interface, method, or constructor element. |
| [**VariableElement**](http://docs.google.com/javax/lang/model/element/VariableElement.html) | Represents a field, enum constant, method or constructor parameter, local variable, or exception parameter. |

| **Enum Summary** | |
| --- | --- |
| [**ElementKind**](http://docs.google.com/javax/lang/model/element/ElementKind.html) | The kind of an element. |
| [**Modifier**](http://docs.google.com/javax/lang/model/element/Modifier.html) | Represents a modifier on a program element such as a class, method, or field. |
| [**NestingKind**](http://docs.google.com/javax/lang/model/element/NestingKind.html) | The *nesting kind* of a type element. |

| **Exception Summary** | |
| --- | --- |
| [**UnknownAnnotationValueException**](http://docs.google.com/javax/lang/model/element/UnknownAnnotationValueException.html) | Indicates that an unknown kind of annotation value was encountered. |
| [**UnknownElementException**](http://docs.google.com/javax/lang/model/element/UnknownElementException.html) | Indicates that an unknown kind of element was encountered. |

## Package javax.lang.model.element Description

Interfaces used to model elements of the Java programming language.

When used in the context of annotation processing, an accurate model of the element being represented must be returned. As this is a language model, the source code provides the fiducial (reference) representation of the construct in question rather than a representation in an executable output like a class file. Executable output may serve as the basis for creating a modeling element. However, the process of translating source code to executable output may not permit recovering some aspects of the source code representation. For example, annotations with [source](http://docs.google.com/java/lang/annotation/RetentionPolicy.html#SOURCE) [retention](http://docs.google.com/java/lang/annotation/Retention.html) cannot be recovered from class files and class files might not be able to provide source position information. The [modifiers](http://docs.google.com/javax/lang/model/element/Modifier.html) on an element may differ in some cases including

* strictfp on a class or interface
* final on a parameter
* protected, private, and static on classes and interfaces

Additionally, synthetic constructs in a class file, such as accessor methods used in implementing nested classes and bridge methods used in implementing covariant returns, are translation artifacts outside of this model.

During annotation processing, operating on incomplete or erroneous programs is necessary; however, there are fewer guarantees about the nature of the resulting model. If the source code is not syntactically well-formed, a model may or may not be provided as a quality of implementation issue. If a program is syntactically valid but erroneous in some other fashion, the returned model must have no less information than if all the method bodies in the program were replaced by "throw new RuntimeException();". If a program refers to a missing type XYZ, the returned model must contain no less information than if the declaration of type XYZ were assumed to be "class XYZ {}", "interface XYZ {}", "enum XYZ {}", or "@interface XYZ {}". If a program refers to a missing type XYZ<K1, ... ,Kn>, the returned model must contain no less information than if the declaration of XYZ were assumed to be "class XYZ<T1, ... ,Tn> {}" or "interface XYZ<T1, ... ,Tn> {}"

Unless otherwise specified in a particular implementation, the collections returned by methods in this package should be expected to be unmodifiable by the caller and unsafe for concurrent access.

Unless otherwise specified, methods in this package will throw a NullPointerException if given a null argument.

**Since:** 1.6

| | [**Overview**](http://docs.google.com/overview-summary.html) | **Package** | Class | [**Use**](http://docs.google.com/package-use.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
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[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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