| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Enum.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 CLASS**](http://docs.google.com/java/lang/Double.html)   [**NEXT CLASS**](http://docs.google.com/java/lang/EnumConstantNotPresentException.html) | [**FRAMES**](http://docs.google.com/index.html?java/lang/Enum.html)    [**NO FRAMES**](http://docs.google.com/Enum.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#4d34og8) |

## **java.lang**

Class Enum<E extends Enum<E>>

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **java.lang.Enum<E>**

**All Implemented Interfaces:** [Serializable](http://docs.google.com/java/io/Serializable.html), [Comparable](http://docs.google.com/java/lang/Comparable.html)<E>

public abstract class **Enum<E extends Enum<E>>**extends [Object](http://docs.google.com/java/lang/Object.html)implements [Comparable](http://docs.google.com/java/lang/Comparable.html)<E>, [Serializable](http://docs.google.com/java/io/Serializable.html)

This is the common base class of all Java language enumeration types.

**Since:** 1.5 **See Also:**[Serialized Form](http://docs.google.com/serialized-form.html#java.lang.Enum)

| **Constructor Summary** | |
| --- | --- |
| protected | [**Enum**](http://docs.google.com/java/lang/Enum.html#Enum(java.lang.String,%20int))([String](http://docs.google.com/java/lang/String.html) name, int ordinal)            Sole constructor. |

| **Method Summary** | |
| --- | --- |
| protected  [Object](http://docs.google.com/java/lang/Object.html) | [**clone**](http://docs.google.com/java/lang/Enum.html#clone())()            Throws CloneNotSupportedException. |
| int | [**compareTo**](http://docs.google.com/java/lang/Enum.html#compareTo(E))([E](http://docs.google.com/java/lang/Enum.html) o)            Compares this enum with the specified object for order. |
| boolean | [**equals**](http://docs.google.com/java/lang/Enum.html#equals(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) other)            Returns true if the specified object is equal to this enum constant. |
| protected  void | [**finalize**](http://docs.google.com/java/lang/Enum.html#finalize())()            enum classes cannot have finalize methods. |
| [Class](http://docs.google.com/java/lang/Class.html)<[E](http://docs.google.com/java/lang/Enum.html)> | [**getDeclaringClass**](http://docs.google.com/java/lang/Enum.html#getDeclaringClass())()            Returns the Class object corresponding to this enum constant's enum type. |
| int | [**hashCode**](http://docs.google.com/java/lang/Enum.html#hashCode())()            Returns a hash code for this enum constant. |
| [String](http://docs.google.com/java/lang/String.html) | [**name**](http://docs.google.com/java/lang/Enum.html#name())()            Returns the name of this enum constant, exactly as declared in its enum declaration. |
| int | [**ordinal**](http://docs.google.com/java/lang/Enum.html#ordinal())()            Returns the ordinal of this enumeration constant (its position in its enum declaration, where the initial constant is assigned an ordinal of zero). |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/java/lang/Enum.html#toString())()            Returns the name of this enum constant, as contained in the declaration. |
| static   | <T extends [Enum](http://docs.google.com/java/lang/Enum.html)<T>>  T | | --- | | [**valueOf**](http://docs.google.com/java/lang/Enum.html#valueOf(java.lang.Class,%20java.lang.String))([Class](http://docs.google.com/java/lang/Class.html)<T> enumType, [String](http://docs.google.com/java/lang/String.html) name)            Returns the enum constant of the specified enum type with the specified name. |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

| **Constructor Detail** |
| --- |

### Enum

protected **Enum**([String](http://docs.google.com/java/lang/String.html) name,  
 int ordinal)

Sole constructor. Programmers cannot invoke this constructor. It is for use by code emitted by the compiler in response to enum type declarations.

**Parameters:**name - - The name of this enum constant, which is the identifier used to declare it.ordinal - - The ordinal of this enumeration constant (its position in the enum declaration, where the initial constant is assigned an ordinal of zero).

| **Method Detail** |
| --- |

### name

public final [String](http://docs.google.com/java/lang/String.html) **name**()

Returns the name of this enum constant, exactly as declared in its enum declaration. **Most programmers should use the** [**toString()**](http://docs.google.com/java/lang/Enum.html#toString()) **method in preference to this one, as the toString method may return a more user-friendly name.** This method is designed primarily for use in specialized situations where correctness depends on getting the exact name, which will not vary from release to release.

**Returns:**the name of this enum constant

### ordinal

public final int **ordinal**()

Returns the ordinal of this enumeration constant (its position in its enum declaration, where the initial constant is assigned an ordinal of zero). Most programmers will have no use for this method. It is designed for use by sophisticated enum-based data structures, such as [EnumSet](http://docs.google.com/java/util/EnumSet.html) and [EnumMap](http://docs.google.com/java/util/EnumMap.html).

**Returns:**the ordinal of this enumeration constant

### toString

public [String](http://docs.google.com/java/lang/String.html) **toString**()

Returns the name of this enum constant, as contained in the declaration. This method may be overridden, though it typically isn't necessary or desirable. An enum type should override this method when a more "programmer-friendly" string form exists.

**Overrides:**[toString](http://docs.google.com/java/lang/Object.html#toString()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**the name of this enum constant

### equals

public final boolean **equals**([Object](http://docs.google.com/java/lang/Object.html) other)

Returns true if the specified object is equal to this enum constant.

**Overrides:**[equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)) in class [Object](http://docs.google.com/java/lang/Object.html) **Parameters:**other - the object to be compared for equality with this object. **Returns:**true if the specified object is equal to this enum constant.**See Also:**[Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### hashCode

public final int **hashCode**()

Returns a hash code for this enum constant.

**Overrides:**[hashCode](http://docs.google.com/java/lang/Object.html#hashCode()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a hash code for this enum constant.**See Also:**[Object.equals(java.lang.Object)](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### clone

protected final [Object](http://docs.google.com/java/lang/Object.html) **clone**()  
 throws [CloneNotSupportedException](http://docs.google.com/java/lang/CloneNotSupportedException.html)

Throws CloneNotSupportedException. This guarantees that enums are never cloned, which is necessary to preserve their "singleton" status.

**Overrides:**[clone](http://docs.google.com/java/lang/Object.html#clone()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**(never returns) **Throws:** [CloneNotSupportedException](http://docs.google.com/java/lang/CloneNotSupportedException.html) - if the object's class does not support the Cloneable interface. Subclasses that override the clone method can also throw this exception to indicate that an instance cannot be cloned.**See Also:**[Cloneable](http://docs.google.com/java/lang/Cloneable.html)

### compareTo

public final int **compareTo**([E](http://docs.google.com/java/lang/Enum.html) o)

Compares this enum with the specified object for order. Returns a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object. Enum constants are only comparable to other enum constants of the same enum type. The natural order implemented by this method is the order in which the constants are declared.

**Specified by:**[compareTo](http://docs.google.com/java/lang/Comparable.html#compareTo(T)) in interface [Comparable](http://docs.google.com/java/lang/Comparable.html)<[E](http://docs.google.com/java/lang/Enum.html) extends [Enum](http://docs.google.com/java/lang/Enum.html)<[E](http://docs.google.com/java/lang/Enum.html)>> **Parameters:**o - the object to be compared. **Returns:**a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

### getDeclaringClass

public final [Class](http://docs.google.com/java/lang/Class.html)<[E](http://docs.google.com/java/lang/Enum.html)> **getDeclaringClass**()

Returns the Class object corresponding to this enum constant's enum type. Two enum constants e1 and e2 are of the same enum type if and only if e1.getDeclaringClass() == e2.getDeclaringClass(). (The value returned by this method may differ from the one returned by the [Object.getClass()](http://docs.google.com/java/lang/Object.html#getClass()) method for enum constants with constant-specific class bodies.)

**Returns:**the Class object corresponding to this enum constant's enum type

### valueOf

public static <T extends [Enum](http://docs.google.com/java/lang/Enum.html)<T>> T **valueOf**([Class](http://docs.google.com/java/lang/Class.html)<T> enumType,  
 [String](http://docs.google.com/java/lang/String.html) name)

Returns the enum constant of the specified enum type with the specified name. The name must match exactly an identifier used to declare an enum constant in this type. (Extraneous whitespace characters are not permitted.)

**Parameters:**enumType - the Class object of the enum type from which to return a constantname - the name of the constant to return **Returns:**the enum constant of the specified enum type with the specified name **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if the specified enum type has no constant with the specified name, or the specified class object does not represent an enum type [NullPointerException](http://docs.google.com/java/lang/NullPointerException.html) - if enumType or name is null**Since:** 1.5

### finalize

protected final void **finalize**()

enum classes cannot have finalize methods.

**Overrides:**[finalize](http://docs.google.com/java/lang/Object.html#finalize()) in class [Object](http://docs.google.com/java/lang/Object.html)

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Enum.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 CLASS**](http://docs.google.com/java/lang/Double.html)   [**NEXT CLASS**](http://docs.google.com/java/lang/EnumConstantNotPresentException.html) | [**FRAMES**](http://docs.google.com/index.html?java/lang/Enum.html)    [**NO FRAMES**](http://docs.google.com/Enum.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
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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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