| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/TabularType.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/javax/management/openmbean/TabularDataSupport.html)   NEXT CLASS | [**FRAMES**](http://docs.google.com/index.html?javax/management/openmbean/TabularType.html)    [**NO FRAMES**](http://docs.google.com/TabularType.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#2et92p0) | [CONSTR](#tyjcwt) | [METHOD](#3dy6vkm) | DETAIL: FIELD | [CONSTR](#2s8eyo1) | [METHOD](#3rdcrjn) |

## **javax.management.openmbean**

Class TabularType

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 [javax.management.openmbean.OpenType](http://docs.google.com/javax/management/openmbean/OpenType.html)<[TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html)>  
 **javax.management.openmbean.TabularType**

**All Implemented Interfaces:** [Serializable](http://docs.google.com/java/io/Serializable.html)

public class **TabularType**extends [OpenType](http://docs.google.com/javax/management/openmbean/OpenType.html)<[TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html)>

The TabularType class is the  *open type* class whose instances describe the types of [TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html) values.

**Since:** 1.5 **See Also:**[Serialized Form](http://docs.google.com/serialized-form.html#javax.management.openmbean.TabularType)

| **Field Summary** | |
| --- | --- |

| **Fields inherited from class javax.management.openmbean.**[**OpenType**](http://docs.google.com/javax/management/openmbean/OpenType.html) |
| --- |
| [ALLOWED\_CLASSNAMES](http://docs.google.com/javax/management/openmbean/OpenType.html#ALLOWED_CLASSNAMES), [ALLOWED\_CLASSNAMES\_LIST](http://docs.google.com/javax/management/openmbean/OpenType.html#ALLOWED_CLASSNAMES_LIST) |

| **Constructor Summary** | |
| --- | --- |
| [**TabularType**](http://docs.google.com/javax/management/openmbean/TabularType.html#TabularType(java.lang.String,%20java.lang.String,%20javax.management.openmbean.CompositeType,%20java.lang.String%5B%5D))([String](http://docs.google.com/java/lang/String.html) typeName, [String](http://docs.google.com/java/lang/String.html) description, [CompositeType](http://docs.google.com/javax/management/openmbean/CompositeType.html) rowType, [String](http://docs.google.com/java/lang/String.html)[] indexNames)            Constructs a TabularType instance, checking for the validity of the given parameters. |

| **Method Summary** | |
| --- | --- |
| boolean | [**equals**](http://docs.google.com/javax/management/openmbean/TabularType.html#equals(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) obj)            Compares the specified obj parameter with this TabularType instance for equality. |
| [List](http://docs.google.com/java/util/List.html)<[String](http://docs.google.com/java/lang/String.html)> | [**getIndexNames**](http://docs.google.com/javax/management/openmbean/TabularType.html#getIndexNames())()            Returns, in the same order as was given to this instance's constructor, an unmodifiable List of the names of the items the values of which are used to uniquely index each row element of tabular data values described by this TabularType instance. |
| [CompositeType](http://docs.google.com/javax/management/openmbean/CompositeType.html) | [**getRowType**](http://docs.google.com/javax/management/openmbean/TabularType.html#getRowType())()            Returns the type of the row elements of tabular data values described by this TabularType instance. |
| int | [**hashCode**](http://docs.google.com/javax/management/openmbean/TabularType.html#hashCode())()            Returns the hash code value for this TabularType instance. |
| boolean | [**isValue**](http://docs.google.com/javax/management/openmbean/TabularType.html#isValue(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) obj)            Tests whether obj is a value which could be described by this TabularType instance. |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/javax/management/openmbean/TabularType.html#toString())()            Returns a string representation of this TabularType instance. |

| **Methods inherited from class javax.management.openmbean.**[**OpenType**](http://docs.google.com/javax/management/openmbean/OpenType.html) |
| --- |
| [getClassName](http://docs.google.com/javax/management/openmbean/OpenType.html#getClassName()), [getDescription](http://docs.google.com/javax/management/openmbean/OpenType.html#getDescription()), [getTypeName](http://docs.google.com/javax/management/openmbean/OpenType.html#getTypeName()), [isArray](http://docs.google.com/javax/management/openmbean/OpenType.html#isArray()) |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [clone](http://docs.google.com/java/lang/Object.html#clone()), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [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** |
| --- |

### TabularType

public **TabularType**([String](http://docs.google.com/java/lang/String.html) typeName,  
 [String](http://docs.google.com/java/lang/String.html) description,  
 [CompositeType](http://docs.google.com/javax/management/openmbean/CompositeType.html) rowType,  
 [String](http://docs.google.com/java/lang/String.html)[] indexNames)  
 throws [OpenDataException](http://docs.google.com/javax/management/openmbean/OpenDataException.html)

Constructs a TabularType instance, checking for the validity of the given parameters. The validity constraints are described below for each parameter.

The Java class name of tabular data values this tabular type represents (ie the class name returned by the [getClassName](http://docs.google.com/javax/management/openmbean/OpenType.html#getClassName()) method) is set to the string value returned by TabularData.class.getName().

**Parameters:**typeName - The name given to the tabular type this instance represents; cannot be a null or empty string.

 description - The human readable description of the tabular type this instance represents; cannot be a null or empty string.

 rowType - The type of the row elements of tabular data values described by this tabular type instance; cannot be null.

 indexNames - The names of the items the values of which are used to uniquely index each row element in the tabular data values described by this tabular type instance; cannot be null or empty. Each element should be an item name defined in rowType (no null or empty string allowed). It is important to note that the **order** of the item names in indexNames is used by the methods [get](http://docs.google.com/javax/management/openmbean/TabularData.html#get(java.lang.Object%5B%5D)) and [remove](http://docs.google.com/javax/management/openmbean/TabularData.html#remove(java.lang.Object%5B%5D)) of class TabularData to match their array of values parameter to items.

**Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if rowType is null, or indexNames is a null or empty array, or an element in indexNames is a null or empty string, or typeName or description is a null or empty string.

[OpenDataException](http://docs.google.com/javax/management/openmbean/OpenDataException.html) - if an element's value of indexNames is not an item name defined in rowType.

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

### getRowType

public [CompositeType](http://docs.google.com/javax/management/openmbean/CompositeType.html) **getRowType**()

Returns the type of the row elements of tabular data values described by this TabularType instance.

**Returns:**the type of each row.

### getIndexNames

public [List](http://docs.google.com/java/util/List.html)<[String](http://docs.google.com/java/lang/String.html)> **getIndexNames**()

Returns, in the same order as was given to this instance's constructor, an unmodifiable List of the names of the items the values of which are used to uniquely index each row element of tabular data values described by this TabularType instance.

**Returns:**a List of String representing the names of the index items.

### isValue

public boolean **isValue**([Object](http://docs.google.com/java/lang/Object.html) obj)

Tests whether obj is a value which could be described by this TabularType instance.

If obj is null or is not an instance of javax.management.openmbean.TabularData, isValue returns false.

If obj is an instance of javax.management.openmbean.TabularData, say td, the result is true if this TabularType is *assignable from* [td.getTabularType()](http://docs.google.com/javax/management/openmbean/TabularData.html#getTabularType()), as defined in [CompositeType.isValue](http://docs.google.com/javax/management/openmbean/CompositeType.html#isValue(java.lang.Object)).

**Specified by:**[isValue](http://docs.google.com/javax/management/openmbean/OpenType.html#isValue(java.lang.Object)) in class [OpenType](http://docs.google.com/javax/management/openmbean/OpenType.html)<[TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html)> **Parameters:**obj - the value whose open type is to be tested for compatibility with this TabularType instance. **Returns:**true if obj is a value for this tabular type, false otherwise.

### equals

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

Compares the specified obj parameter with this TabularType instance for equality.

Two TabularType instances are equal if and only if all of the following statements are true:

* their type names are equal
* their row types are equal
* they use the same index names, in the same order

**Specified by:**[equals](http://docs.google.com/javax/management/openmbean/OpenType.html#equals(java.lang.Object)) in class [OpenType](http://docs.google.com/javax/management/openmbean/OpenType.html)<[TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html)> **Parameters:**obj - the object to be compared for equality with this TabularType instance; if obj is null, equals returns false. **Returns:**true if the specified object is equal to this TabularType instance.**See Also:**[Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### hashCode

public int **hashCode**()

Returns the hash code value for this TabularType instance.

The hash code of a TabularType instance is the sum of the hash codes of all elements of information used in equals comparisons (ie: name, row type, index names). This ensures that t1.equals(t2) implies that t1.hashCode()==t2.hashCode() for any two TabularType instances t1 and t2, as required by the general contract of the method [Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()).

As TabularType instances are immutable, the hash code for this instance is calculated once, on the first call to hashCode, and then the same value is returned for subsequent calls.

**Specified by:**[hashCode](http://docs.google.com/javax/management/openmbean/OpenType.html#hashCode()) in class [OpenType](http://docs.google.com/javax/management/openmbean/OpenType.html)<[TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html)> **Returns:**the hash code value for this TabularType instance**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)

### toString

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

Returns a string representation of this TabularType instance.

The string representation consists of the name of this class (ie javax.management.openmbean.TabularType), the type name for this instance, the row type string representation of this instance, and the index names of this instance.

As TabularType instances are immutable, the string representation for this instance is calculated once, on the first call to toString, and then the same value is returned for subsequent calls.

**Specified by:**[toString](http://docs.google.com/javax/management/openmbean/OpenType.html#toString()) in class [OpenType](http://docs.google.com/javax/management/openmbean/OpenType.html)<[TabularData](http://docs.google.com/javax/management/openmbean/TabularData.html)> **Returns:**a string representation of this TabularType instance

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/TabularType.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/javax/management/openmbean/TabularDataSupport.html)   NEXT CLASS | [**FRAMES**](http://docs.google.com/index.html?javax/management/openmbean/TabularType.html)    [**NO FRAMES**](http://docs.google.com/TabularType.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#2et92p0) | [CONSTR](#tyjcwt) | [METHOD](#3dy6vkm) | DETAIL: FIELD | [CONSTR](#2s8eyo1) | [METHOD](#3rdcrjn) |

[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.

Copyright 2006 Sun Microsystems, Inc. All rights reserved. Use is subject to [license terms](http://docs.google.com/legal/license.html). Also see the [documentation redistribution policy](http://java.sun.com/docs/redist.html).