

JAVA.LANG.CLASS.GETMETHODS METHOD

http://www.tutorialspoint.com/java/lang/class_getmethods.htm

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Description

The **java.lang.Class.getMethods** returns an array containing Method objects reflecting all the public member methods of the class or interface represented by this Class object, including those declared by the class or interface and those inherited from superclasses and superinterfaces.

The method returns an array of length 0 if this Class object represents a class or interface that has no public member methods, or if this Class object represents a primitive type or void.

Declaration

Following is the declaration for **java.lang.Class.getMethods** method

```
public Method[] getMethods() throws SecurityException
```

Parameters

- NA

Return Value

This method returns the array of Method objects representing the public methods of this class.

Exception

- **SecurityException** -- If a security manager, s, is present.

Example

The following example shows the usage of java.lang.Class.getMethods method.

```
package com.tutorialspoint;
import java.lang.reflect.*;
public class ClassDemo {
    public static void main(String[] args) {
        try {
            Class cls = Class.forName("java.awt.Label");
            System.out.println("Methods =");

            /* returns the array of Method objects representing the public
            methods of this class */
            Method m[] = cls.getMethods();
            for(int i = 0; i < m.length; i++) {
                System.out.println(m[i]);
            }
        }
        catch (Exception e) {
            System.out.println("Exception: " + e);
        }
    }
}
```

Let us compile and run the above program, this will produce the following result:

```
Methods =
public void java.awt.Label.addNotify()
```

```

public int java.awt.Label.getAlignment()
public synchronized void java.awt.Label.setAlignment(int)
public java.lang.String java.awt.Label.getText()
public void java.awt.Label.setText(java.lang.String)
public javax.accessibility.AccessibleContext java.awt.Label.getAccessibleContext()
public void java.awt.Component.add(java.awt.PopupMenu)
public java.lang.String java.awt.Component.toString()
public java.lang.String java.awt.Component.getName()
public java.awt.Dimension java.awt.Component.size()
public boolean java.awt.Component.contains(int, int)
public boolean java.awt.Component.contains(java.awt.Point)
public java.awt.Container java.awt.Component.getParent()
public java.awt.Point java.awt.Component.getLocation()
public java.awt.Point java.awt.Component.getLocation(java.awt.Point)
public void java.awt.Component.remove(java.awt.MenuComponent)
public void java.awt.Component.setName(java.lang.String)
public void java.awt.Component.list()
public void java.awt.Component.list(java.io.PrintStream)
public void java.awt.Component.list(java.io.PrintStream, int)
public void java.awt.Component.list(java.io.PrintWriter)
public void java.awt.Component.list(java.io.PrintWriter, int)
public void java.awt.Component.print(java.awt.Graphics)
public java.awt.Dimension java.awt.Component.getSize()
public java.awt.Dimension java.awt.Component.getSize(java.awt.Dimension)
public void java.awt.Component.resize(int, int)
public void java.awt.Component.resize(java.awt.Dimension)
public boolean java.awt.Component.action(java.awt.Event, java.lang.Object)
public void java.awt.Component.setSize(int, int)
public void java.awt.Component.setSize(java.awt.Dimension)
public void java.awt.Component.update(java.awt.Graphics)
public boolean java.awt.Component.isOpaque()
public void java.awt.Component.enable()
public void java.awt.Component.enable(boolean)
public void java.awt.Component.disable()
public java.awt.Point java.awt.Component.location()
public final java.lang.Object java.awt.Component.getTreeLock()
public java.awt.Toolkit java.awt.Component.getToolkit()
public java.awt.peer.ComponentPeer java.awt.Component.getPeer()
public synchronized void java.awt.Component.setDropTarget(java.awt.dnd.DropTarget)
public synchronized java.awt.dnd.DropTarget java.awt.Component.getDropTarget()
public java.awt.GraphicsConfiguration java.awt.Component.getGraphicsConfiguration()
public boolean java.awt.Component.isValid()
public boolean java.awt.Component.isDisplayable()
public boolean java.awt.Component.isVisible()
public java.awt.Point java.awt.Component.getMousePosition() throws
java.awt.HeadlessException
public boolean java.awt.Component.isShowing()
public boolean java.awt.Component.isEnabled()
public void java.awt.Component.setEnabled(boolean)
public boolean java.awt.Component.isDoubleBuffered()
public void java.awt.Component.enableInputMethods(boolean)
public void java.awt.Component.setVisible(boolean)
public void java.awt.Component.show()
public void java.awt.Component.show(boolean)
public void java.awt.Component.hide()
public java.awt.Color java.awt.Component.getForeground()
public void java.awt.Component.setForeground(java.awt.Color)
public boolean java.awt.Component.isForegroundSet()
public java.awt.Color java.awt.Component.getBackground()
public void java.awt.Component.setBackground(java.awt.Color)
public boolean java.awt.Component.isBackgroundSet()
public java.awt.Font java.awt.Component.getFont()
public void java.awt.Component.setFont(java.awt.Font)
public boolean java.awt.Component.isFontSet()
public java.util.Locale java.awt.Component.getLocale()
public void java.awt.Component.setLocale(java.util.Locale)
public java.awt.image.ColorModel java.awt.Component.getColorModel()
public java.awt.Point java.awt.Component.getLocationOnScreen()
public void java.awt.Component.setLocation(int, int)

```

```

public void java.awt.Component.setLocation(java.awt.Point)
public void java.awt.Component.move(int, int)
public java.awt.Rectangle java.awt.Component.getBounds()
public java.awt.Rectangle java.awt.Component.getBounds(java.awt.Rectangle)
public java.awt.Rectangle java.awt.Component.getBounds()
public void java.awt.Component.setBounds(int, int, int, int)
public void java.awt.Component.setBounds(java.awt.Rectangle)
public void java.awt.Component.reshape(int, int, int, int)
public int java.awt.Component.getX()
public int java.awt.Component.getY()
public int java.awt.Component.getWidth()
public int java.awt.Component.getHeight()
public boolean java.awt.Component.isLightweight()
public void java.awt.Component.setPreferredSize(java.awt.Dimension)
public java.awt.Dimension java.awt.Component.preferredSize()
public boolean java.awt.Component.isPreferredSizeSet()
public java.awt.Dimension java.awt.Component.getPreferredSize()
public void java.awt.Component.setMinimumSize(java.awt.Dimension)
public java.awt.Dimension java.awt.Component.minimumSize()
public boolean java.awt.Component.isMinimumSizeSet()
public java.awt.Dimension java.awt.Component.getMinimumSize()
public void java.awt.Component.setMaximumSize(java.awt.Dimension)
public boolean java.awt.Component.isMaximumSizeSet()
public java.awt.Dimension java.awt.Component.getMaximumSize()
public float java.awt.Component.getAlignmentX()
public float java.awt.Component.getAlignmentY()
public int java.awt.Component.getBaseline(int, int)
public java.awt.Component$BaselineResizeBehavior
java.awt.Component.getBaselineResizeBehavior()
public void java.awt.Component.doLayout()
public void java.awt.Component.layout()
public void java.awt.Component.validate()
public void java.awt.Component.invalidate()
public java.awt.Graphics java.awt.Component.getGraphics()
public java.awt.FontMetrics java.awt.Component.getFontMetrics(java.awt.Font)
public void java.awt.Component.setCursor(java.awt.Cursor)
public java.awt.Cursor java.awt.Component.getCursor()
public boolean java.awt.Component.isCursorSet()
public void java.awt.Component.paint(java.awt.Graphics)
public void java.awt.Component.paintAll(java.awt.Graphics)
public void java.awt.Component.repaint()
public void java.awt.Component.repaint(long)
public void java.awt.Component.repaint(int, int, int, int)
public void java.awt.Component.repaint(long, int, int, int, int)
public void java.awt.Component.printAll(java.awt.Graphics)
public boolean java.awt.Component.imageUpdate(java.awt.Image, int, int, int, int, int)
public java.awt.Image java.awt.Component.createImage(java.awt.image.ImageProducer)
public java.awt.Image java.awt.Component.createImage(int, int)
public java.awt.image.VolatileImage java.awt.Component.createVolatileImage(int, int)
public java.awt.image.VolatileImage
java.awt.Component.createVolatileImage(int, int, java.awt.ImageCapabilities) throws
java.awt.AWTException
public boolean
java.awt.Component.prepareImage(java.awt.Image, java.awt.image.ImageObserver)
public boolean java.awt.Component.prepareImage
(java.awt.Image, int, int, java.awt.image.ImageObserver)
public int java.awt.Component.checkImage(java.awt.Image, java.awt.image.ImageObserver)
public int java.awt.Component.checkImage
(java.awt.Image, int, int, java.awt.image.ImageObserver)
public void java.awt.Component.setIgnoreRepaint(boolean)
public boolean java.awt.Component.getIgnoreRepaint()
public boolean java.awt.Component.inside(int, int)
public java.awt.Component java.awt.Component.getComponentAt(int, int)
public java.awt.Component java.awt.Component.getComponentAt(java.awt.Point)
public java.awt.Component java.awt.Component.locate(int, int)
public void java.awt.Component.deliverEvent(java.awt.Event)
public final void java.awt.Component.dispatchEvent(java.awt.AWTEvent)
public boolean java.awt.Component.postEvent(java.awt.Event)
public synchronized void

```

```
java.awt.Component.addComponentListener(java.awt.event.ComponentListener)
public synchronized void
java.awt.Component.removeComponentListener(java.awt.event.ComponentListener)
public synchronized java.awt.event.ComponentListener []
java.awt.Component.getComponentListeners()
public synchronized void java.awt.Component.addFocusListener(java.awt.event.FocusListener)
public synchronized void
java.awt.Component.removeFocusListener(java.awt.event.FocusListener)
public synchronized java.awt.event.FocusListener [] java.awt.Component.getFocusListeners()
public void java.awt.Component.addHierarchyListener(java.awt.event.HierarchyListener)
public void java.awt.Component.removeHierarchyListener(java.awt.event.HierarchyListener)
public synchronized java.awt.event.HierarchyListener []
java.awt.Component.getHierarchyListeners()
public void java.awt.Component.addHierarchyBoundsListener
(java.awt.event.HierarchyBoundsListener)
public void java.awt.Component.removeHierarchyBoundsListener
(java.awt.event.HierarchyBoundsListener)
public synchronized java.awt.event.HierarchyBoundsListener []
java.awt.Component.getHierarchyBoundsListeners()
public synchronized void java.awt.Component.addKeyListener(java.awt.event.KeyListener)
public synchronized void java.awt.Component.removeKeyListener(java.awt.event.KeyListener)
public synchronized java.awt.event.KeyListener [] java.awt.Component.getKeyListeners()
public synchronized void java.awt.Component.addMouseListener(java.awt.event.MouseListener)
public synchronized void
java.awt.Component.removeMouseListener(java.awt.event.MouseListener)
public synchronized java.awt.event.MouseListener [] java.awt.Component.getMouseListeners()
public synchronized void
java.awt.Component.addMouseMotionListener(java.awt.event.MouseMotionListener)
public synchronized void java.awt.Component.removeMouseMotionListener
(java.awt.event.MouseMotionListener)
public synchronized java.awt.event.MouseMotionListener []
java.awt.Component.getMouseMotionListeners()
public synchronized void
java.awt.Component.addMouseWheelListener(java.awt.event.MouseWheelListener)
public synchronized void
java.awt.Component.removeMouseWheelListener(java.awt.event.MouseWheelListener)
public synchronized java.awt.event.MouseWheelListener []
java.awt.Component.getMouseWheelListeners()
public synchronized void
java.awt.Component.addInputMethodListener(java.awt.event.InputMethodListener)
public synchronized void java.awt.Component.removeInputMethodListener
(java.awt.event.InputMethodListener)
public synchronized java.awt.event.InputMethodListener []
java.awt.Component.getInputMethodListeners()
public java.util.EventListener [] java.awt.Component.getListeners(java.lang.Class)
public java.awt.im.InputMethodRequests java.awt.Component.getInputMethodRequests()
public java.awt.im.InputContext java.awt.Component.getInputContext()
public boolean java.awt.Component.handleEvent(java.awt.Event)
public boolean java.awt.Component.mouseDown(java.awt.Event, int, int)
public boolean java.awt.Component.mouseDrag(java.awt.Event, int, int)
public boolean java.awt.Component.mouseUp(java.awt.Event, int, int)
public boolean java.awt.Component.mouseMove(java.awt.Event, int, int)
public boolean java.awt.Component.mouseEnter(java.awt.Event, int, int)
public boolean java.awt.Component.mouseExit(java.awt.Event, int, int)
public boolean java.awt.Component.keyDown(java.awt.Event, int)
public boolean java.awt.Component.keyUp(java.awt.Event, int)
public void java.awt.Component.removeNotify()
public boolean java.awt.Component.gotFocus(java.awt.Event, java.lang.Object)
public boolean java.awt.Component.lostFocus(java.awt.Event, java.lang.Object)
public boolean java.awt.Component.isFocusTraversable()
public boolean java.awt.Component.isFocusable()
public void java.awt.Component.setFocusable(boolean)
public void java.awt.Component.setFocusTraversalKeys(int, java.util.Set)
public java.util.Set java.awt.Component.getFocusTraversalKeys(int)
public boolean java.awt.Component.areFocusTraversalKeysSet(int)
public void java.awt.Component.setFocusTraversalKeysEnabled(boolean)
public boolean java.awt.Component.getFocusTraversalKeysEnabled()
public void java.awt.Component.requestFocus()
public boolean java.awt.Component.requestFocusInWindow()
```

```
public java.awt.Container java.awt.Component.getFocusCycleRootAncestor()
public boolean java.awt.Component.isFocusCycleRoot(java.awt.Container)
public void java.awt.Component.transferFocus()
public void java.awt.Component.nextFocus()
public void java.awt.Component.transferFocusBackward()
public void java.awt.Component.transferFocusUpCycle()
public boolean java.awt.Component.hasFocus()
public boolean java.awt.Component.isFocusOwner()
public void
java.awt.Component.addPropertyChangeListener(java.beans.PropertyChangeListener)
public void java.awt.Component.addPropertyChangeListener
(java.lang.String, java.beans.PropertyChangeListener)
public void java.awt.Component.removePropertyChangeListener
(java.beans.PropertyChangeListener)
public void java.awt.Component.removePropertyChangeListener
(java.lang.String, java.beans.PropertyChangeListener)
public java.beans.PropertyChangeListener[] java.awt.Component.getPropertyChangeListeners()
public java.beans.PropertyChangeListener[]
java.awt.Component.getPropertyChangeListeners(java.lang.String)
public void java.awt.Component.firePropertyChange(java.lang.String, byte, byte)
public void java.awt.Component.firePropertyChange(java.lang.String, char, char)
public void java.awt.Component.firePropertyChange(java.lang.String, short, short)
public void java.awt.Component.firePropertyChange(java.lang.String, long, long)
public void java.awt.Component.firePropertyChange(java.lang.String, float, float)
public void java.awt.Component.firePropertyChange(java.lang.String, double, double)
public void java.awt.Component.setComponentOrientation(java.awt.ComponentOrientation)
public java.awt.ComponentOrientation java.awt.Component.getComponentOrientation()
public void java.awt.Component.applyComponentOrientation(java.awt.ComponentOrientation)
public final native void java.lang.Object.wait(long) throws java.lang.InterruptedException
public final void java.lang.Object.wait(long, int) throws java.lang.InterruptedException
public final void java.lang.Object.wait() throws java.lang.InterruptedException
public boolean java.lang.Object.equals(java.lang.Object)
public native int java.lang.Object.hashCode()
public final native java.lang.Class java.lang.Object.getClass()
public final native void java.lang.Object.notify()
public final native void java.lang.Object.notifyAll()
```

Processing math: 100%