# Java JFrame

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**JFrame**

The Java JFrame is an essential component of Java Swing, which is a part of the Java SWT (Standard Widget Toolkit). JFrame in Java is a class that allows to create and manage a top-level window in a Java application. It serves as the main window for GUI-based Java applications and provides a platform-independent way to create graphical user interfaces. In Java JFrame is a part of javax.swing package.

**Constructor of Java JFrame**

| **Constructor** | **Description** |
| --- | --- |
| **JFrame()** | This is the default constructor for JFrame. It creates a new frame with no title |
| **JFrame(String title)** | This constructor creates a new frame with the specified title. |
| **JFrame(GraphicsConfiguration gc)** | This constructor creates a JFrame that uses the specified graphics configuration. |
| **JFrame(String title, GraphicsConfiguration gc)** | This constructor creates a JFrame with the specified title and using the specified graphics configuration. |
| **JFrame(Rectangle bounds)** | This constructor creates a JFrame with the specified bounds. |
| **JFrame(String title, Rectangle bounds)** | This constructor creates a JFrame with the specified title and bounds. |

**Methods of Java JFrame**

| **Methods** | **Description** |
| --- | --- |
| **setTitle(String title)** | Sets the title of the JFrame. |
| **setSize(int width, int height)** | Sets the size of the JFrame. |
| **setDefaultCloseOperation(int operation)** | Sets the default close operation for the JFrame. Common options include JFrame.EXIT\_ON\_CLOSE, JFrame.HIDE\_ON\_CLOSE, and JFrame.DO\_NOTHING\_ON\_CLOSE. |
| **setVisible(boolean b)** | Sets the visibility of the JFrame. Pass true to make it visible and false to hide it. |
| **setLayout(LayoutManager manager)** | Sets the layout manager for the JFrame, which controls how components are arranged within the frame. |
| **add(Component comp)** | Adds a Swing component to the JFrame. |
| **remove(Component comp)** | Removes a component from the JFrame. |
| **validate()** | Forces the layout manager to recalculate the layout of components within the JFrame. |
| **setResizable(boolean resizable)** | Controls whether the user can resize the JFrame. |
| **setIconImage(Image image)** | Sets the icon (image) for the JFrame window. |

**Parent Classes of JFrame Methods**

JFrame is the part of Java Swing and the classes from where all the methods associated with JFrame are inherited and are mentioned below:

1. Java.awt.Frame
2. Java.awt.Container
3. Java.awt.Wiindow
4. Javax.swing.JFrame

**Some Fields for Java JFrame**

| **Fields** | **Description** |
| --- | --- |
| **EXIT\_ON\_CLOSE (int)** | A field that specifies the default operation to perform when the user closes the JFrame. It's typically used with the setDefaultCloseOperation() method. |
| **DISPOSE\_ON\_CLOSE (int)** | It is constant that specifies an operation to perform when the user closes the JFrame.It disposes of the JFrame but doesn't exit the application. |
| **HIDE\_ON\_CLOSE (int)** | Specifies that the JFrame should be hidden but not disposed of when the user closes it. |
| **DO\_NOTHING\_ON\_CLOSE (int)** | Indicates that no action should be taken when the user closes the JFrame. |