

SWING - GRIDLAYOUT CLASS

http://www.tutorialspoint.com/swing/swing_gridlayout.htm

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Introduction

The class **GridLayout** arranges components in a rectangular grid.

Class declaration

Following is the declaration for **java.awt.GridLayout** class:

```
public class GridLayout
    extends Object
    implements LayoutManager, Serializable
```

Class constructors

S.N.	Constructor & Description
1	GridLayout Creates a grid layout with a default of one column per component, in a single row.
2	GridLayout(int rows, int cols) Creates a grid layout with the specified number of rows and columns.
3	GridLayout(int rows, int cols, int hgap, int vgap) Creates a grid layout with the specified number of rows and columns.

Class methods

S.N.	Method & Description
1	void addLayoutComponent(Stringname, Componentcomp) Adds the specified component with the specified name to the layout.
2	int getColumns Gets the number of columns in this layout.
3	int getHgap Gets the horizontal gap between components.
4	int getRows Gets the number of rows in this layout.
5	int getVgap Gets the vertical gap between components.

- 6 **void layoutContainer***Containerparent*
Lays out the specified container using this layout.
- 7 **Dimension minimumLayoutSize***Containerparent*
Determines the minimum size of the container argument using this grid layout.
- 8 **Dimension preferredLayoutSize***Containerparent*
Determines the preferred size of the container argument using this grid layout.
- 9 **void removeLayoutComponent***Componentcomp*
Removes the specified component from the layout.
- 10 **void setColumns***intcols*
Sets the number of columns in this layout to the specified value.
- 11 **void setHgap***inthgap*
Sets the horizontal gap between components to the specified value.
- 12 **void setRows***introws*
Sets the number of rows in this layout to the specified value.
- 13 **void setVgap***intvgap*
Sets the vertical gap between components to the specified value.
- 14 **String toString**
Returns the string representation of this grid layout's values.

Methods inherited

This class inherits methods from the following classes:

- java.lang.Object

GridLayout Example

Create the following java program using any editor of your choice in say **D:/ > SWING > com > tutorialspoint > gui >**

SwingLayoutDemo.java

```
package com.tutorialspoint.gui;

import javax.swing.*.*;

public class SwingLayoutDemo {
    private JFrame mainFrame;
    private JLabel headerLabel;
    private JLabel statusLabel;
    private JPanel controlPanel;
```

```

private JLabel msglabel;

public SwingLayoutDemo(){
    prepareGUI();
}

public static void main(String[] args){
    SwingLayoutDemo swingLayoutDemo = new SwingLayoutDemo();
    swingLayoutDemo.showGridLayoutDemo();
}

private void prepareGUI(){
    mainFrame = new JFrame("Java SWING Examples");
    mainFrame.setSize(400,400);
    mainFrame.setLayout(new GridLayout(3, 1));

    headerLabel = new JLabel("",JLabel.CENTER );
    statusLabel = new JLabel("",JLabel.CENTER);

    statusLabel.setSize(350,100);
    mainFrame.addWindowListener(new WindowAdapter() {
        public void windowClosing(WindowEvent windowEvent){
            System.exit(0);
        }
    });
    controlPanel = new JPanel();
    controlPanel.setLayout(new FlowLayout());

    mainFrame.add(headerLabel);
    mainFrame.add(controlPanel);
    mainFrame.add(statusLabel);
    mainFrame.setVisible(true);
}

private void showGridLayoutDemo(){
    headerLabel.setText("Layout in action: GridLayout");

    JPanel panel = new JPanel();
    panel.setBackground(Color.darkGray);
    panel.setSize(300,300);
    GridLayout layout = new GridLayout(0,3);
    layout.setHgap(10);
    layout.setVgap(10);

    panel.setLayout(layout);
    panel.add(new JButton("Button 1"));
    panel.add(new JButton("Button 2"));
    panel.add(new JButton("Button 3"));
    panel.add(new JButton("Button 4"));
    panel.add(new JButton("Button 5"));
    controlPanel.add(panel);
    mainFrame.setVisible(true);
}
}

```

Compile the program using command prompt. Go to **D:/ > SWING** and type the following command.

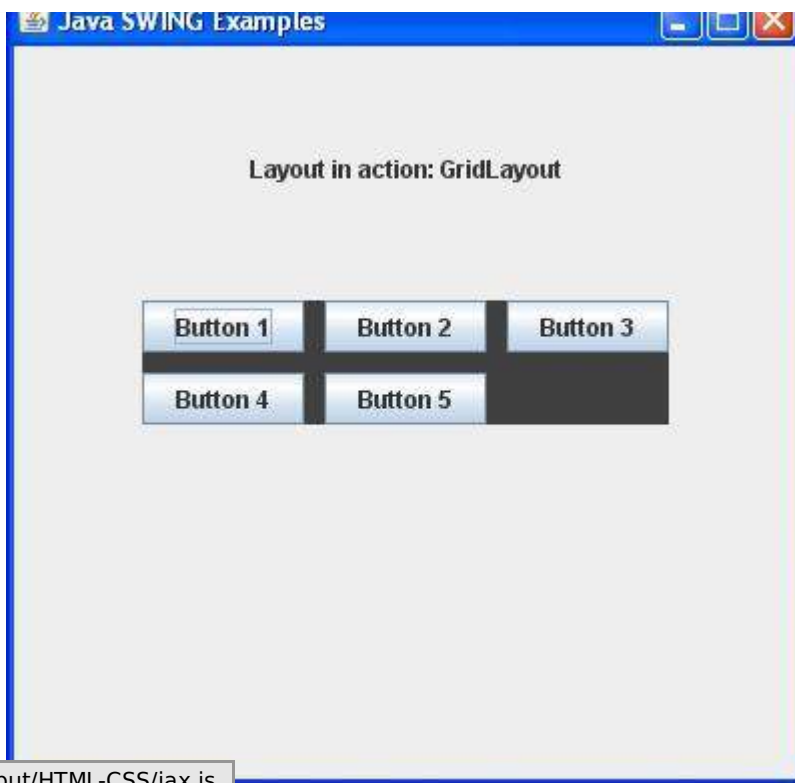
```
D:\SWING>javac com\tutorialspoint\gui\SwingLayoutDemo.java
```

If no error comes that means compilation is successful. Run the program using following command.

```
D:\SWING>java com.tutorialspoint.gui.SwingLayoutDemo
```

Verify the following output





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