

AWT GRIDLAYOUT CLASS

http://www.tutorialspoint.com/awt/awt_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 <i>introws, intcols</i> Creates a grid layout with the specified number of rows and columns.
3	GridLayout <i>introws, intcols, inthgap, intvgap</i> Creates a grid layout with the specified number of rows and columns.

Class methods

S.N.	Method & Description
1	void addLayoutComponent <i>Stringname, Componentcomp</i> 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:/ > AWT > com > tutorialspoint > gui >**

AwtLayoutDemo.java

```
package com.tutorialspoint.gui;

import java.awt.*;
import java.awt.event.*;

public class AwtLayoutDemo {
    private Frame mainFrame;
    private Label headerLabel;
    private Label statusLabel;
    private Panel controlPanel;
    private Label msglabel;

    public AwtLayoutDemo(){
        prepareGUI();
    }

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

    private void prepareGUI(){
        mainFrame = new Frame("Java AWT Examples");
        mainFrame.setSize(400,400);
        mainFrame.setLayout(new GridLayout(3, 1));
        mainFrame.addWindowListener(new WindowAdapter() {
            public void windowClosing(WindowEvent windowEvent){
                System.exit(0);
            }
        });
        headerLabel = new Label();
        headerLabel.setAlignment(Label.CENTER);
        statusLabel = new Label();
        statusLabel.setAlignment(Label.CENTER);
        statusLabel.setSize(350,100);

        msglabel = new Label();
        msglabel.setAlignment(Label.CENTER);
        msglabel.setText("Welcome to Tutorialspoint AWT Tutorial.");

        controlPanel = new Panel();
        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");

        Panel panel = new Panel();
        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 Button("Button 1"));
        panel.add(new Button("Button 2"));
        panel.add(new Button("Button 3"));
```

```
panel.add(new Button("Button 4"));  
panel.add(new Button("Button 5"));  
controlPanel.add(panel);  
mainFrame.setVisible(true);  
}  
}
```

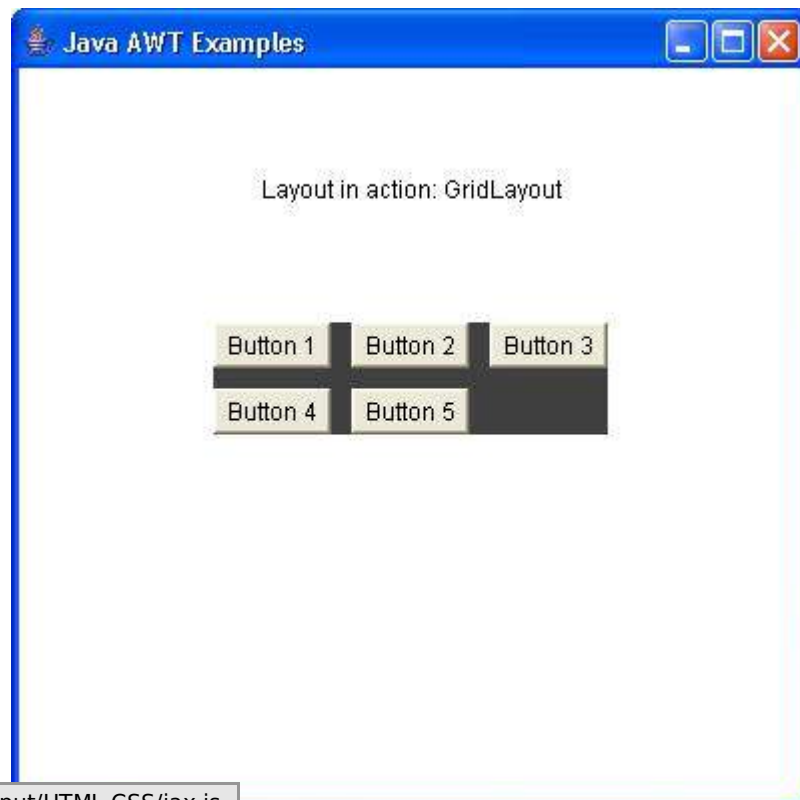
Compile the program using command prompt. Go to **D:/ > AWT** and type the following command.

```
D:\AWT>javac com\tutorialspoint\gui\AwtlayoutDemo.java
```

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

```
D:\AWT>java com.tutorialspoint.gui.AwtlayoutDemo
```

Verify the following output



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