**BorderLayout**

The class **BorderLayout** arranges the components to fit in the five regions: east, west, north, south and center.

**constructors**

|  |  |
| --- | --- |
| **S.N.** | **Constructor & Description** |
| 1 | **BorderLayout()**  Constructs a new border layout with no gaps between components. |
| 2 | **BorderLayout(int hgap, int vgap)**  Constructs a border layout with the specified gaps between components. |

**Class methods**

|  |  |
| --- | --- |
| **S.N.** | **Method & Description** |
| 1 | **void addLayoutComponent(Component comp, Object constraints)**  Adds the specified component to the layout, using the specified constraint object. |
| 2 | **void addLayoutComponent(String name, Component comp)**  If the layout manager uses a per-component string, adds the component comp to the layout, associating it with the string specified by name. |
| 3 | **int getHgap()**  Returns the horizontal gap between components. |
| 4 | **float getLayoutAlignmentX(Container parent)**  Returns the alignment along the x axis. |
| 5 | **float getLayoutAlignmentY(Container parent)**  Returns the alignment along the y axis. |
| 6 | **int getVgap()**  Returns the vertical gap between components. |

**Example**

**import** java.awt.BorderLayout;

**import** java.awt.Button;

**import** java.awt.Color;

**import** java.awt.FlowLayout;

**import** java.awt.Frame;

**import** java.awt.GridLayout;

**import** java.awt.Label;

**import** java.awt.Panel;

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

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

**public** **class** FrameDemo {

**private** Frame mainFrame;

**private** Label headerLabel;

**private** Label statusLabel;

**private** Panel controlPanel;

**private** Label msglabel;

**public** FrameDemo(){

prepareGUI();

}

**public** **static** **void** main(String[] args){

FrameDemo awtLayoutDemo = **new** FrameDemo();

awtLayoutDemo.showBorderLayoutDemo();

}

**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.***LEFT***);

msglabel.setText("Welcome to CDAC Jaipur.");

controlPanel = **new** Panel();

controlPanel.setLayout(**new** FlowLayout());

mainFrame.add(headerLabel);

mainFrame.add(controlPanel);

mainFrame.add(statusLabel);

mainFrame.setVisible(**true**);

}

**private** **void** showBorderLayoutDemo(){

headerLabel.setText("Layout in action: BorderLayout");

Panel panel = **new** Panel();

panel.setBackground(Color.***darkGray***);

panel.setSize(300,300);

BorderLayout layout = **new** BorderLayout();

layout.setHgap(10);

layout.setVgap(10);

panel.setLayout(layout);

panel.add(**new** Button("Center"),BorderLayout.***CENTER***);

panel.add(**new** Button("Line Start"),BorderLayout.***LINE\_START***);

panel.add(**new** Button("Line End"),BorderLayout.***LINE\_END***);

panel.add(**new** Button("East"),BorderLayout.***EAST***);

panel.add(**new** Button("West"),BorderLayout.***WEST***);

panel.add(**new** Button("North"),BorderLayout.***NORTH***);

panel.add(**new** Button("South"),BorderLayout.***SOUTH***);

controlPanel.add(panel);

mainFrame.setVisible(**true**);

}

}

