

Introduction

The Menu class represents pull-down menu component which is deployed from a menu bar.

Class declaration

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

```
public class Menu
    extends MenuItem
    implements MenuContainer, Accessible
```

Class constructors

S.N.	Constructor & Description
1	Menu Constructs a new menu with an empty label.
2	MenuStringlabel Constructs a new menu with the specified label.
3	MenuStringlabel, booleantearOff Constructs a new menu with the specified label, indicating whether the menu can be torn off.

Class methods

S.N.	Method & Description
1	MenuItem addMenuItem Adds the specified menu item to this menu.
2	void addStringlabel Adds an item with the specified label to this menu.
3	void addNotify Creates the menu's peer.
4	

void addSeparator

Adds a separator line, or a hyphen, to the menu at the current position.

5

int countItems

Deprecated. As of JDK version 1.1, replaced by getItemCount.

6

AccessibleContext getAccessibleContext

Gets the AccessibleContext associated with this Menu.

7

MenuItem getItem*intindex*

Gets the item located at the specified index of this menu.

8

int getItemCount

Get the number of items in this menu.

9

void insert*MenuItemmenuItem, intindex*

Inserts a menu item into this menu at the specified position.

10

void insert*Stringlabel, intindex*

Inserts a menu item with the specified label into this menu at the specified position.

11

void insertSeparator*intindex*

Inserts a separator at the specified position.

12

boolean isTearOff

Indicates whether this menu is a tear-off menu.

13

String paramString

Returns a string representing the state of this Menu.

14

void remove*intindex*

Removes the menu item at the specified index from this menu.

15

void remove*MenuComponentitem*

Removes the specified menu item from this menu.

16

void removeAll

Removes all items from this menu.

17

void removeNotify

Removes the menu's peer.

Methods inherited

This class inherits methods from the following classes:

- java.awt.MenuItem
- java.awt.MenuComponent
- java.lang.Object

Menu Example

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

AWTMenuDemo.java

```
package com.tutorialspoint.gui;

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

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

    public AWTMenuDemo(){
        prepareGUI();
    }

    public static void main(String[] args){
        AWTMenuDemo awtMenuDemo = new AWTMenuDemo();
        awtMenuDemo.showMenuDemo();
    }

    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);

        controlPanel = new Panel();
        controlPanel.setLayout(new FlowLayout());

        mainFrame.add(headerLabel);
```

```

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

private void showMenuDemo(){
    //create a menu bar
    final MenuBar menuBar = new MenuBar();

    //create menus
    Menu fileMenu = new Menu("File");
    Menu editMenu = new Menu("Edit");
    final Menu aboutMenu = new Menu("About");

    //create menu items
    MenuItem newMenuItem =
        new MenuItem("New", new MenuShortcut(KeyEvent.VK_N));
    newMenuItem.setActionCommand("New");

    MenuItem openMenuItem = new MenuItem("Open");
    openMenuItem.setActionCommand("Open");

    MenuItem saveMenuItem = new MenuItem("Save");
    saveMenuItem.setActionCommand("Save");

    MenuItem exitMenuItem = new MenuItem("Exit");
    exitMenuItem.setActionCommand("Exit");

    MenuItem cutMenuItem = new MenuItem("Cut");
    cutMenuItem.setActionCommand("Cut");

    MenuItem copyMenuItem = new MenuItem("Copy");
    copyMenuItem.setActionCommand("Copy");

    MenuItem pasteMenuItem = new MenuItem("Paste");
    pasteMenuItem.setActionCommand("Paste");

    MenuItemListener menuItemListener = new MenuItemListener();

    newMenuItem.addActionListener(menuItemListener);
    openMenuItem.addActionListener(menuItemListener);
    saveMenuItem.addActionListener(menuItemListener);
    exitMenuItem.addActionListener(menuItemListener);
    cutMenuItem.addActionListener(menuItemListener);
    copyMenuItem.addActionListener(menuItemListener);
    pasteMenuItem.addActionListener(menuItemListener);

    final CheckboxMenuItem showWindowMenu =
        new CheckboxMenuItem("Show About", true);
    showWindowMenu.addItemListener(new ItemListener() {
        public void itemStateChanged(ItemEvent e) {
            if(showWindowMenu.getState()){
                menuBar.add(aboutMenu);
            }else{
                menuBar.remove(aboutMenu);
            }
        }
    });

    //add menu items to menus
    fileMenu.add(newMenuItem);
    fileMenu.add(openMenuItem);
    fileMenu.add(saveMenuItem);
    fileMenu.addSeparator();
    fileMenu.add(showWindowMenu);
    fileMenu.addSeparator();
    fileMenu.add(exitMenuItem);

    editMenu.add(cutMenuItem);

```

```

editMenu.add(copyMenuItem);
editMenu.add(pasteMenuItem);

//add menu to menubar
menuBar.add(fileMenu);
menuBar.add(editMenu);
menuBar.add(aboutMenu);

//add menubar to the frame
mainFrame.setMenuBar(menuBar);
mainFrame.setVisible(true);
}

class MenuItemListener implements ActionListener {
    public void actionPerformed(ActionEvent e) {
        statusLabel.setText(e.getActionCommand()
            + " MenuItem clicked.");
    }
}
}

```

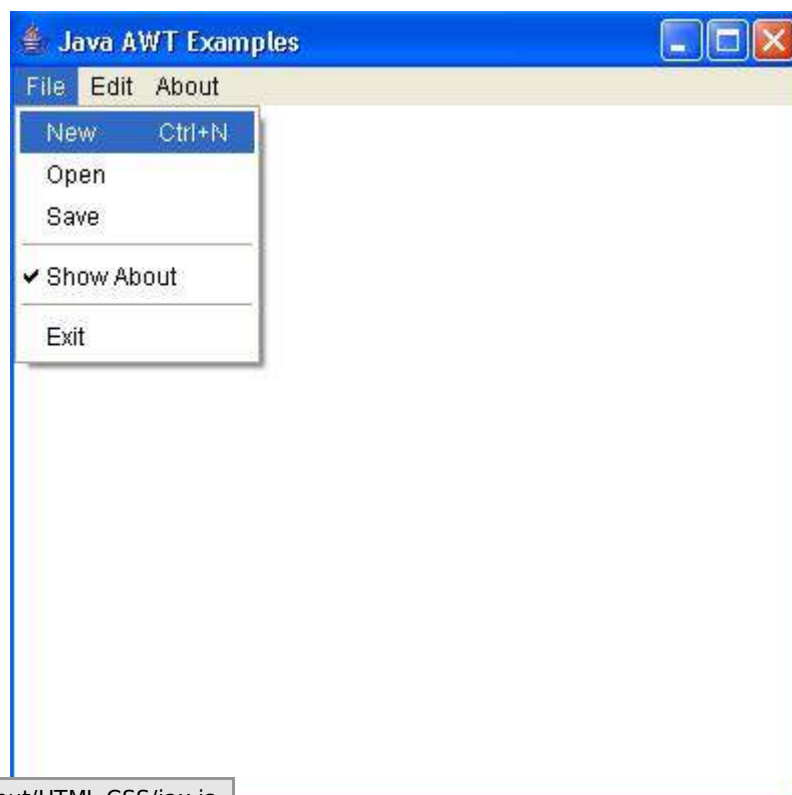
Compile the program using command prompt. Go to **D:/ > AWT** and type the following command.

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

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

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

Verify the following output. *Click on File Menu.*



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