Menus en Swing - JMenuBar

```
public class MenuBarExample extends JFrame implements ... {
    private void initGUI() {
    JPanel mainPanel = new JPanel();
                                                                                   [=] JMenuBar [=]
                                                                           Main Courses
                                                                   Starters
                                                                                        Desserts
        mainPanel.setBackground(Color.white);
                                                                            Haddock
                                                                            Steak
                                                                                             Rare
                                                                                             Well Done
                                                                            Pie
        JMenuBar menu = createMenuBar();
                                                                            Chips
                                                                            Baked Potato
                                                                            Vegetables
        this.setContentPane(mainPanel);
this.setJMenuBar(menu);
        this.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        this.pack();
this.setVisible(true);
    public JMenuBar createMenuBar() {
   JMenuBar menuBar = new JMenuBar();
                                                                            Frame
                                                                                                    avered Pane
        // add item to the menu
                                                                                   Menu Ba
        return menuBar;
                                                          Root Pane
                                                                                                    🖛 Glass Pane
                                                             Content Pane
```

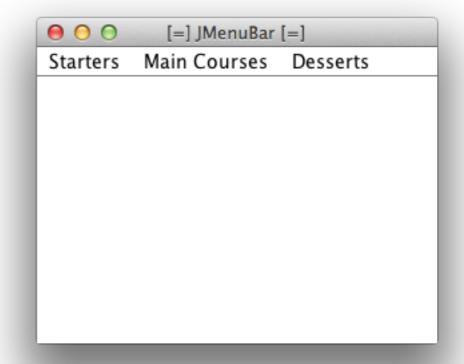
Menus en Swing - JMenu

```
public JMenuBar createMenuBar() {
  JMenuBar menuBar = new JMenuBar();
  JMenu starter = new JMenu("Starters");
  JMenu maincourse = new JMenu("Main Courses");
  JMenu desserts = new JMenu("Desserts");
  menuBar.add(starter);
  menuBar.add(maincourse);
  menuBar.add(desserts);
  // starters code
  // maincourse code
  // dessert code
  return JMenuBar;
```

```
Starters Main Courses Desserts
```

Menus en Swing - JMenu

```
public JMenuBar createMenuBar() {
  JMenuBar menuBar = new JMenuBar();
  JMenu starter = new JMenu("Starters");
  JMenu maincourse = new JMenu("Main Courses");
  JMenu desserts = new JMenu("Desserts");
  menuBar.add(starter);
  menuBar.add(maincourse);
  menuBar.add(desserts);
  // starters code
  // maincourse code
  // dessert code
  return JMenuBar;
```



Menus en Swing - JMenu

```
public JMenuBar createMenuBar() {
  JMenuBar menuBar = new JMenuBar();
  JMenu starter = new JMenu("Starters");
  JMenu maincourse = new JMenu("Main Courses");
  JMenu desserts = new JMenu("Desserts");
  menuBar.add(starter);
  menuBar.add(maincourse);
  menuBar.add(desserts);
  // starters code
  // maincourse code
  // dessert code
  return JMenuBar;
```

```
Starters Main Courses Desserts
```

Menus en Swing - JMenultem

// starters code

```
JMenuItem soup = new JMenuItem("Soup");
JMenuItem pate = new JMenuItem("Pate");
JMenuItem salad = new JMenuItem("Salad");
starter.add(soup);
starter.add(pate);
starter.add(salad);
```



Menus en Swing - JMenultem

// starters code

```
JMenuItem soup = new JMenuItem("Soup");
JMenuItem pate = new JMenuItem("Pate");
JMenuItem salad = new JMenuItem("Salad");
starter.add(soup);
starter.add(pate);
starter.add(salad);
```



Menus en Swing - JMenultem

// starters code

```
JMenuItem soup = new JMenuItem("Soup");
JMenuItem pate = new JMenuItem("Pate");
JMenuItem salad = new JMenuItem("Salad");
starter.add(soup);
starter.add(pate);
starter.add(salad);
```



```
[=] JMenuBar [=]
// maincourse code
                                                                                      Main Courses
                                                                              Starters
                                                                                                  Desserts
                                                                                       Haddock
                                                                                       Steak
                                                                                                       Rare
JMenuItem fish = new JMenuItem("Haddock");
                                                                                                       Well Done
                                                                                       Pie
maincourse.add(fish);
                                                                                       Chips
                                                                                       Baked Potato
JMenu steak = new JMenu("Steak");
JMenuItem rare = new JMenuItem("Rare");
                                                                                       Vegetables
JMenuItem welldone = new JMenuItem("Well Done");
steak.add(rare);
steak.add(welldone);
maincourse.add(steak);
JMenuItem pie = new JMenuItem("Pie");
maincourse.add(pie);
maincourse.addSeparator();
JRadioButtonMenuItem chips = new JRadioButtonMenuItem("Chips");
JRadioButtonMenuItem bp = new JRadioButtonMenuItem("Baked Potato");
JRadioButtonMenuItem vege = new JRadioButtonMenuItem("Vegetables");
ButtonGroup sides = new ButtonGroup();
sides.add(chips);
sides.add(bp);
sides.add(vege);
maincourse.add(chips);
maincourse.add(bp); maincourse.add(vege);
see: examples.swinq.misc.MenuBarExample
```

```
[=] JMenuBar [=]
// maincourse code
                                                                                      Main Courses
                                                                              Starters
                                                                                                  Desserts
                                                                                       Haddock
                                                                                                       Rare
                                                                                       Steak
JMenuItem fish = new JMenuItem("Haddock");
                                                                                                       Well Done
                                                                                       Pie
maincourse.add(fish);
                                                                                       Chips
                                                                                       Baked Potato
JMenu steak = new JMenu("Steak");
JMenuItem rare = new JMenuItem("Rare");
                                                                                       Vegetables
JMenuItem welldone = new JMenuItem("Well Done");
steak.add(rare);
steak.add(welldone);
maincourse.add(steak);
JMenuItem pie = new JMenuItem("Pie");
maincourse.add(pie);
maincourse.addSeparator();
JRadioButtonMenuItem chips = new JRadioButtonMenuItem("Chips");
JRadioButtonMenuItem bp = new JRadioButtonMenuItem("Baked Potato");
JRadioButtonMenuItem vege = new JRadioButtonMenuItem("Vegetables");
ButtonGroup sides = new ButtonGroup();
sides.add(chips);
sides.add(bp);
sides.add(vege);
maincourse.add(chips);
maincourse.add(bp); maincourse.add(vege);
see: examples.swinq.misc.MenuBarExample
```

```
[=] JMenuBar [=]
// maincourse code
                                                                                      Main Courses
                                                                              Starters
                                                                                                   Desserts
                                                                                       Haddock
                                                                                                       Rare
                                                                                       Steak
JMenuItem fish = new JMenuItem("Haddock");
                                                                                                       Well Done
                                                                                       Pie
maincourse.add(fish);
                                                                                       Chips
                                                                                       Baked Potato
JMenu steak = new JMenu("Steak");
JMenuItem rare = new JMenuItem("Rare");
                                                                                       Vegetables
JMenuItem welldone = new JMenuItem("Well Done");
steak.add(rare);
steak.add(welldone);
maincourse.add(steak);
JMenuItem pie = new JMenuItem("Pie");
maincourse.add(pie);
maincourse.addSeparator();
JRadioButtonMenuItem chips = new JRadioButtonMenuItem("Chips");
JRadioButtonMenuItem bp = new JRadioButtonMenuItem("Baked Potato");
JRadioButtonMenuItem vege = new JRadioButtonMenuItem("Vegetables");
ButtonGroup sides = new ButtonGroup();
sides.add(chips);
sides.add(bp);
sides.add(vege);
maincourse. add(chips);
maincourse.add(bp); maincourse.add(vege);
see: examples.swinq.misc.MenuBarExample
```

```
[=] JMenuBar [=]
// maincourse code
                                                                                      Main Courses
                                                                              Starters
                                                                                                  Desserts
                                                                                       Haddock
                                                                                       Steak
                                                                                                       Rare
JMenuItem fish = new JMenuItem("Haddock");
                                                                                                       Well Done
                                                                                       Pie
maincourse.add(fish);
                                                                                       Chips
                                                                                       Baked Potato
JMenu steak = new JMenu("Steak");
JMenuItem rare = new JMenuItem("Rare");
                                                                                       Vegetables
JMenuItem welldone = new JMenuItem("Well Done");
steak.add(rare);
steak.add(welldone);
maincourse.add(steak);
JMenuItem pie = new JMenuItem("Pie");
maincourse.add(pie);
maincourse.addSeparator();
JRadioButtonMenuItem chips = new JRadioButtonMenuItem("Chips");
JRadioButtonMenuItem bp = new JRadioButtonMenuItem("Baked Potato");
JRadioButtonMenuItem vege = new JRadioButtonMenuItem("Vegetables");
ButtonGroup sides = new ButtonGroup();
sides.add(chips);
sides.add(bp);
sides.add(vege);
maincourse.add(chips);
maincourse.add(bp); maincourse.add(vege);
see: examples.swinq.misc.MenuBarExample
```

```
[=] JMenuBar [=]
// maincourse code
                                                                                      Main Courses
                                                                              Starters
                                                                                                  Desserts
                                                                                       Haddock
                                                                                       Steak
                                                                                                       Rare
JMenuItem fish = new JMenuItem("Haddock");
                                                                                                       Well Done
                                                                                       Pie
maincourse.add(fish);
                                                                                       Chips
                                                                                       Baked Potato
JMenu steak = new JMenu("Steak");
JMenuItem rare = new JMenuItem("Rare");
                                                                                       Vegetables
JMenuItem welldone = new JMenuItem("Well Done");
steak.add(rare);
steak.add(welldone);
maincourse.add(steak);
JMenuItem pie = new JMenuItem("Pie");
maincourse.add(pie);
maincourse.addSeparator();
JRadioButtonMenuItem chips = new JRadioButtonMenuItem("Chips");
JRadioButtonMenuItem bp = new JRadioButtonMenuItem("Baked Potato");
JRadioButtonMenuItem vege = new JRadioButtonMenuItem("Vegetables");
ButtonGroup sides = new ButtonGroup();
sides.add(chips);
sides.add(bp);
sides.add(vege);
maincourse.add(chips);
maincourse.add(bp); maincourse.add(vege);
see: examples.swinq.misc.MenuBarExample
```

```
[=] JMenuBar [=]
// maincourse code
                                                                                      Main Courses
                                                                              Starters
                                                                                                   Desserts
                                                                                        Haddock
                                                                                                        Rare
                                                                                        Steak
JMenuItem fish = new JMenuItem("Haddock");
                                                                                                        Well Done
                                                                                        Pie
maincourse.add(fish);
                                                                                        Chips
                                                                                        Baked Potato
JMenu steak = new JMenu("Steak");
JMenuItem rare = new JMenuItem("Rare");
                                                                                        Vegetables
JMenuItem welldone = new JMenuItem("Well Done");
steak.add(rare);
steak.add(welldone);
maincourse.add(steak);
JMenuItem pie = new JMenuItem("Pie");
maincourse.add(pie);
maincourse.addSeparator();
JRadioButtonMenuItem chips = new JRadioButtonMenuItem("Chips");
JRadioButtonMenuItem bp = new JRadioButtonMenuItem("Baked Potato");
JRadioButtonMenuItem vege = new JRadioButtonMenuItem("Vegetables");
ButtonGroup sides = new ButtonGroup();
sides.add(chips);
sides.add(bp);
sides.add(vege);
maincourse.add(chips);
maincourse.add(bp);
maincourse.add(vege);
```

```
// dessert code
```

```
JCheckBoxMenuItem cake = new JCheckBoxMenuItem("Cake");
desserts.add(cake);
JCheckBoxMenuItem sorbet = new JCheckBoxMenuItem("Sorbet");
desserts.add(sorbet);
JMenu icecream = new JMenu("Ice Cream");
JCheckBoxMenuItem choc = new JCheckBoxMenuItem("Chocolate");
JCheckBoxMenuItem vani = new JCheckBoxMenuItem("Vanilla");
icecream.add(choc);
icecream.add(vani);
desserts.add(icecream);
                                                            [=] JMenuBar [=]
                                                          Main Courses
                                                   Starters
                                                                    Desserts
                                                                      Cake
                                                                      Sorbet
                                                                                 Chocolate
                                                                      Ice Cream >

√ Vanilla
```

// dessert code

```
JCheckBoxMenuItem cake = new JCheckBoxMenuItem("Cake");
desserts.add(cake);
JCheckBoxMenuItem sorbet = new JCheckBoxMenuItem("Sorbet");
desserts.add(sorbet);
JMenu icecream = new JMenu("Ice Cream");
JCheckBoxMenuItem choc = new JCheckBoxMenuItem("Chocolate");
JCheckBoxMenuItem vani = new JCheckBoxMenuItem("Vanilla");
icecream.add(choc);
icecream.add(vani);
desserts.add(icecream);
                                                            [=] JMenuBar [=]
                                                          Main Courses
                                                   Starters
                                                                    Desserts
                                                                      Cake
                                                                      Sorbet
                                                                                 Chocolate
                                                                      Ice Cream >

√ Vanilla
```

// dessert code JCheckBoxMenuItem cake = new JCheckBoxMenuItem("Cake"); desserts.add(cake); JCheckBoxMenuItem sorbet = new JCheckBoxMenuItem("Sorbet"); desserts.add(sorbet); JMenu icecream = new JMenu("Ice Cream"); JCheckBoxMenuItem choc = new JCheckBoxMenuItem("Chocolate"); JCheckBoxMenuItem vani = new JCheckBoxMenuItem("Vanilla"); icecream.add(choc); icecream.add(vani); desserts.add(icecream); [=] JMenuBar [=] Main Courses Starters Desserts Cake Sorbet Chocolate Ice Cream > √ Vanilla

```
// dessert code
```

```
JCheckBoxMenuItem cake = new JCheckBoxMenuItem("Cake");
desserts.add(cake);
JCheckBoxMenuItem sorbet = new JCheckBoxMenuItem("Sorbet");
desserts.add(sorbet);
JMenu icecream = new JMenu("Ice Cream");
JCheckBoxMenuItem choc = new JCheckBoxMenuItem("Chocolate");
JCheckBoxMenuItem vani = new JCheckBoxMenuItem("Vanilla");
icecream.add(choc);
icecream.add(vani);
desserts.add(icecream);
                                                            [=] JMenuBar [=]
                                                          Main Courses
                                                    Starters
                                                                    Desserts
                                                                      Cake
                                                                      Sorbet
                                                                                 Chocolate
                                                                      Ice Cream >

√ Vanilla
```

Menus en Swing - Listeners

```
public JMenuBar createMenuBar() {
                                                             \Theta \Theta \Theta
                                                                      [=] JMenuBar [=]
                                                             Starters
                                                              Soup
  JMenuItem soup = new JMenuItem("Soup");
  soup.addActionListener(this);
                                                              Steak
                                                                            Rare
                                                                            Well Done
                                                              Chips
    JMenuItem rare = new JMenuItem("Rare");
                                                              Baked Potato
    rare.addActionListener(this);
                                                              Cake
                                                              Sorbet
  JMenuItem welldone = new JMenuItem("Well Done");
  welldone.addActionListener(this);
  JRadioButtonMenuItem chips = new JRadioButtonMenuItem("Chips");
  JRadioButtonMenuItem bp = new JRadioButtonMenuItem("Baked Potato");
    chips.addActionListener(this);
    bp.addActionListener(this);
    cake = new JCheckBoxMenuItem("Cake");
    sorbet = new JCheckBoxMenuItem("Sorbet");
    sorbet.addItemListener(this);
    cake.addItemListener(this);
see: examples.swinq.misc.MenuBarExample_1
```

Menus en Swing - Listeners

```
public JMenuBar createMenuBar() {
                                                                   \Theta \Theta \Theta
                                                                             [=] JMenuBar [=]
                                                                   Starters
 JMenuItem soup = new JMenuItem("Soup");
                                                                    Soup
 soup.addActionListener(this);
                                                                    Steak
                                                                                   Rare
                                                                                   Well Done
                                                                    Chips
   JMenuItem rare = new JMenuItem("Rare");
                                                                    Baked Potato
   rare.addActionListener(this);
                                                                    Cake
                                                                    Sorbet
 JMenuItem welldone = new JMenuItem("Well Done");
 welldone.addActionListener(this);
 JRadioButtonMenuItem chips = new JRadioButtonMenuItem("Chips");
 JRadioButtonMenuItem bp = new JPadioButtonMenuItem("Baked Potato").
                                           public void actionPerformed(ActionEvent e) {
   chips.addActionListener(this);
                                               whitebox.append(
   bp.addActionListener(this);
                                                      e.getActionCommand() + " Selected \n");
   cake = new JCheckBoxMenuItem(
                                           public void itemStateChanged(ItemEvent e) {
                                              if(e.getSource() == cake) {
    whitebox.append("Cake Clicked\n");
    } else if(e.getSource() == sorbet) {
     whitebox.append("Sorbet Clicked\n");
}
   sorbet = new JCheckBoxMenuIter
   sorbet.addItemListener(this);
   cake.addItemListener(this);
```

Menu - Mnemonic/Accelerators

```
[=] JMenuBar [=]
public JMenuBar createMenuBar() {
                                                                                               Starters
                                                                                                Soup
                                                                                                        7.0
    JMenu starter = new JMenu("Starters");
starter.setMnemonic(KeyEvent.VK_S);
menuBar.add(starter);
                                                                                                              Rare
                                                                                                Steak
                                                                                                              Well Done \\\TW
                                                                                                Chips
                                                                                                Baked Potato
                                                                                                Cake
    JMenuItem soup = new JMenuItem("Soup");
soup.setMnemonic(KeyEvent.VK_U);
soup.setAccelerator(
                                                                                                Sorbet
    Key'Stroke.getKeyStroke(KeyEvent.VK_U,ActionEvent.ALT_MASK));
    JMenu steak = new JMenu("Steak");
    steak.setMnemonic(KeyEvent.VK_T);
    JMenuItem rare = new JMenuItem("Rare");
rare.setMnemonic(KeyEvent.VK_R);
rare.setAccelerator(
      KeyStroke.getKeyStroke(KeyEvent.VK_R,ActionEvent.ALT_MASK));
    JMenuItem welldone = new JMenuItem("Well Done");
    welldone.setMnemonic(KeyEvent.VK_W);
    welldone.setAccelerator(
       KeyStroke.getKeyStroke(KeyEvent.VK_W, ActionEvent.ALT_MASK));
    JRadioButtonMenuItem chips = new JRadioButtonMenuItem("Chips"); chips.setMnemonic(KeyEvent.VK_C); JRadioButtonMenuItem bp = new JRadioButtonMenuItem("Baked Potato"); bp.setMnemonic(KeyEvent.VK_P);
see: examples.swing.misc.MenuBarExample_2
```