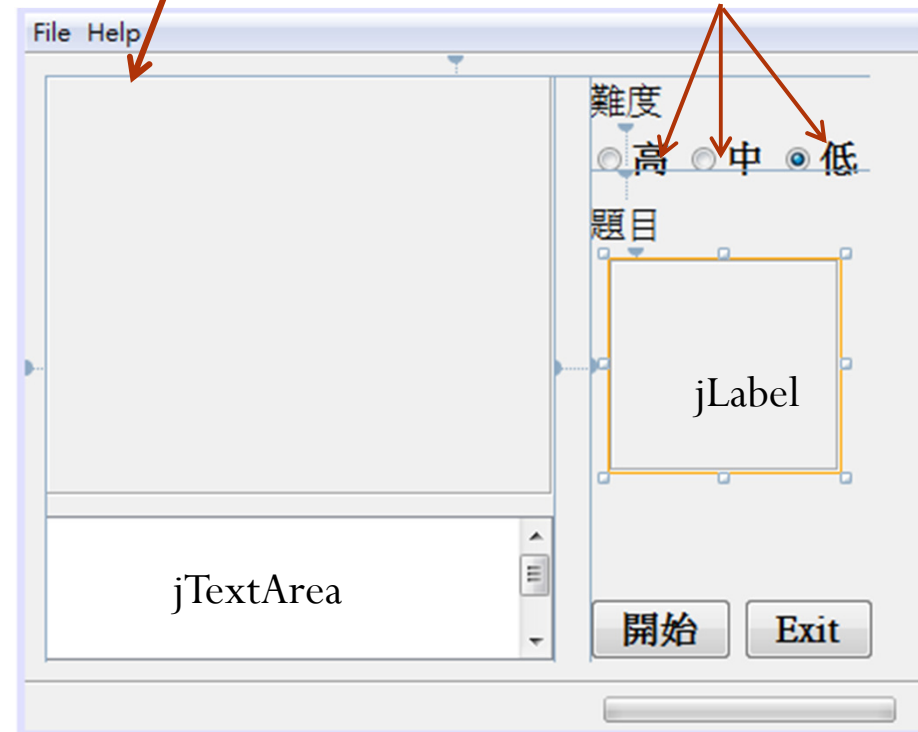


# 記憶力大考驗



1. 面版(Jpanel)

2. JRadioButton



```
17 import javax.swing.JFrame;  
18 import javax.swing.ImageIcon;  
19 import java.awt.Image;  
20 import java.util.*;
```

需要額外 import 的 package

注意  
要拉一個按鈕群組  
(ButtonGroup)放到  
畫面上，加入之後並  
不會出現該元件



# 記憶力大考驗 (Cont.)

在 class 名之下加入下列藍框裡的指令

```
25 public class HW11View extends FrameView {  
26     javax.swing.JButton[] gBtn = new javax.swing.JButton[9];  
27     Random rnd = new Random(new Date().getTime());  
28     static ImageIcon[] imgIcon = new ImageIcon[20];  
29     String imgPath = "D:\\授課\\2011_Fall\\1001_WindowsPrograming\\Workspace\\HW11\\src\\HW11\\resources\\";  
30     String[] imgFileName = {"1.png", "2.png", "3.png", "4.png", "5.png", "6.png", "7.png", //  
31         "8.png", "9.png", "10.png", "Academic-Hat.png", "accept.png", "add.png", //  
32         "Address Book Mac-01.png", "Adobe PDF Reader-01.png", "BluRay.png", "Books.png", //  
33         "bulb.png", "Camera.png", "Carton.png"};  
34     Timer t1, t2;  
35     int arr[] = new int[9];  
36     int quizNo = 0;  
37  
38     public HW11View(SingleFrameApplication app) {
```

```
41         initComponents();  
42         jPanel1.setLayout(new java.awt.GridLayout(3, 3));  
43         buttonGroup1.add(jRadioButton1);  
44         buttonGroup1.add(jRadioButton2);  
45         buttonGroup1.add(jRadioButton3);  
46         for(int i = 0; i < 9; i++){  
47             gBtn[i] = new javax.swing.JButton();  
48             gBtn[i].setPreferredSize(new java.awt.Dimension(120,120));  
49             gBtn[i].addActionListener(new java.awt.event.ActionListener() {  
50                 public void actionPerformed(ActionEvent e) {  
51                     gBtnActionPerformed(e);  
52                 }  
53             });  
54             gBtn[i].setIcon(null);  
55             jPanel1.add(gBtn[i]);  
56         }
```

在 initComponents() 指令  
下方加入左側紅框裡的指令

# 記憶力大考驗 (Cont.)

在 showAboutBox() 函數上方加入下列藍框裡的函數

```
111 }
112 private ImageIcon scale(ImageIcon icon) {
113     Image img = icon.getImage();
114     Image img2 = img.getScaledInstance(110, 110, java.awt.Image.SCALE_SMOOTH);
115     return new ImageIcon(img2);
116 }
117
118 @Action
119 public void showAboutBox() {
120     if (aboutBox == null) {
121         JFrame mainFrame = HW11App.getApplication().getMainFrame();
```

在 jButton1 的 showAboutBox 函數下方加入 gBtnActionPerformed() 函數

```
127 private void gBtnActionPerformed(ActionEvent evt){
128
129 }
```

在 jButton1 的 actionPerformed 裡加入下列藍框裡的指令

```
361 private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
362     // TODO add your handling code here:
363     System.exit(0);
364 }
```

# 記憶力大考驗 (Cont.)

在 jButton2的ActionPerformed 裡加入下列指令

```
366 private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {  
367     // TODO add your handling code here:  
368     int degree = 5;  
369     if(jRadioButton1.isSelected()){  
370         degree = 2;  
371     }else{  
372         if(jRadioButton2.isSelected()){  
373             degree = 5;  
374         }else{  
375             if(jRadioButton3.isSelected()){  
376                 degree = 9;  
377             }  
378         }  
379     }  
380     t1 = new Timer(1000*degree, new ActionListener() {  
381         public void actionPerformed(ActionEvent e) {  
382             setGBtnNull();  
383             t1.stop();  
384             t2.start();  
385             quizNo = rnd.nextInt(9);  
386             jLabel3.setIcon(imgIcon[arr[quizNo]]);  
387         }  
388     });  
389     t2 = new Timer(3000, new ActionListener() {  
390         public void actionPerformed(ActionEvent e) {  
391             quizNo = rnd.nextInt(9);  
392             jLabel3.setIcon(imgIcon[arr[quizNo]]);  
393         }  
394     });  
395  
396     ImageIcon icon;  
397     for(int i = 0; i < 20; i++){  
398         icon = new ImageIcon(imgPath+imgFileName[i]);  
399         imgIcon[i] = scale(icon);  
400     }  
401     boolean flag = true;  
402     int j=0;  
403     while(j<9){  
404         arr[j] = rnd.nextInt(20);  
405         flag = true;  
406         for(int k =0;k<j;k++){  
407             if(arr[j]==arr[k]){  
408                 flag = false;  
409             }  
410         }  
411         if(flag){  
412             j++;  
413         }  
414     }  
415     for(int i = 0; i < 9; i++){  
416         gBtn[i].setIcon(imgIcon[arr[i]]);  
417     }  
418     t1.start();  
419     jButton2.setEnabled(false);  
420 }
```

# 記憶力大考驗 (Cont.)

在 jButton2 的 actionPerformed 函數結束後加入 setGBtnNull() 函數

```
421 private void setGBtnNull(){  
422     for(int i=0;i<9;i++){  
423         gBtn[i].setIcon(null);  
424     }  
425 }
```