

## Java 10 Swing Index

Section	Title	Page
<b>One</b>	<b>Introduction to Java</b>	2
	– Usage of Java	3
	– Structure of Java	4
	– Flexibility of Java Programming	5
	– Swing and AWT in Java	6
<b>Two</b>	<b>Using Java in DOS</b>	9
	– Using the DOS window	10
	– DOS Operating System Commands	11
	– Compiling and Executing Java Programs in DOS	13
	– Using JAVAC to Compile Java Programs	14
<b>Three</b>	<b>Dialog Boxes</b>	20
	– Using Dialog Boxes	21
	– Using Message Dialogs	23
	– Using ImageIcons with Message Dialogs	28
	– Using Confirm Dialogs	31
	– Using Input Dialogs	36
	– Using Input Dialogs with Icons and Lists	38
	– Using Option Dialogs	40
	– Making a Beep in Java	46
	– <i>Exercise One</i>	47
<b>Four</b>	<b>Dimensions</b>	52
	– The Dimension Datatype	53
	– Examples of Using Dimensions	54
	– Methods for Dimensions	55
	– getSize()	57
<b>Five</b>	<b>JFrame</b>	58
	– Using JFrame	59
	– setDefaultCloseOperation()	60
	– setVisible()	61
	– Exiting JFrames	62
	– setResizable()	63
	– setLocation()	64
	– setBounds()	66
	– Centering JFrames	67
	– JFrame Example	68
	– setLocationRelativeTo() for Centreing	69
	– dispose()	70
	– Using setIconImage()	71
	– Using Constructors in Java Swing	72
	– serialVersionUID	73
– Creating a Constructor Method	74	
– JFrame Constructor	76	
– @SuppressWarnings	77	
– <i>Exercise Two</i>	81	
<b>Six</b>	<b>JComponent</b>	83
	– Introduction	84
	– Methods to Change Appearance	85
	– Methods to Process Components	89
<b>Seven</b>	<b>Colour and Fonts</b>	93
	– Using Color	94

Section	Title	Page
	- Using Color with JFrame	96
	- Using Font	97
<b>Eight</b>	<b>JLabel</b>	103
	- Using JLabel	104
	- getContentPane().add()	105
	- Creating a message in JLabel	107
	- Using HTML with JLabel	108
	- Changing the position in a JLabel	111
	- Adding an Icon to a JLabel	113
	- Changing a JLabel's Colour and Font	115
	- Icon only JLabel	117
	- setVerticalAlignment()	118
	- pack()	120
	- <i>Exercise Three</i>	121
<b>Nine</b>	<b>Borders</b>	124
	- BorderFactory	125
	- createEmptyBorder()	128
	- createLineBorder()	129
	- createRaisedBevelBorder()	131
	- createRaisedSoftBevelBorder()	132
	- createBevelBorder()	133
	- createDashedBorder()	135
	- createStrokeBorder()	138
	- createEtchedBorder()	142
	- createMatteBorder()	144
	- createTitledBorder()	146
	- Nested createTitledBorder()	156
	- Fonts with createTitledBorder()	157
	- createCompoundBorder()	158
	- <i>Exercise Four</i>	161
<b>Ten</b>	<b>Mid-Level Containers</b>	165
	- Containers	166
	- JPanels	168
	- JScrollPanels	170
	- Scroll Bar policy	173
	- <i>Exercise Five</i>	175
<b>Eleven</b>	<b>Absolute Layouts</b>	177
	- Introduction	178
	- setBounds()	179
	- <i>Exercise Six</i>	183
<b>Twelve</b>	<b>Layouts</b>	184
	- JPanel and Layouts	185
	- FlowLayout	187
	- Some FlowLayout Methods	191
	- GridLayout	193
	- Some GridLayout Methods	198
	- BorderLayout	199
	- Defining BorderLayouts since Java 1.4	204
	- Some BorderLayout Methods	206
	- <i>Exercise Seven</i>	207

Section	Title	Page
	- BorderLayout	210
	- SpringLayout	213
	- putConstraint()	217
<b>Thirteen</b>	<b>Box</b>	<b>221</b>
	- Introduction	222
	- createRigidArea()	224
	- createVerticalStrut()	225
	- createHorizontalStrut()	226
	- createGlue()	227
	- createHorizontalGlue() / createVerticalGlue()	229
	- Using Box.Filler	230
	- Using Box as a Container	233
	- <i>Exercise Eight</i>	235
<b>Fourteen</b>	<b>JButton</b>	<b>237</b>
	- Introduction	238
	- Example	239
	- Using Insets to re-size JButtons	241
	- Using Icons with JButtons	243
	- Using AbstractButton with JButtons	244
	- Using SwingConstants with JButtons	248
	- Some Methods for JButtons	249
	- Using HTML with JButton	252
	- Advanced Icons with JButtons	253
	- Using Rollover with JButtons	255
	- JButtons and ToolTips	256
	- BasicArrowButton	257
<b>Fifteen</b>	<b>Event Handling with Listeners</b>	<b>259</b>
	- Listening for Events	260
<b>Sixteen</b>	<b>Private Event Listeners for JButtons</b>	<b>265</b>
	- Introduction	266
	- java.awt.event.*	267
	- Example of Private Listener	268
	- ActionEvent	270
	- Recording the Event	271
	- Which Component fired the Listener	272
	- Using getActionCommand()	273
	- getValueIsAdjusting()	274
	- getWhen()	275
	- <i>Exercise Nine</i>	276
<b>Seventeen</b>	<b>Public Event Listeners</b>	<b>278</b>
	- Introduction	279
	- Example of Public Listener	280
<b>Eighteen</b>	<b>Implemented Event Listeners</b>	<b>282</b>
	- Introduction	283
	- Example of Implemented Listener	284
<b>Nineteen</b>	<b>Listener Events</b>	<b>286</b>
	- Introduction	287
	- Multiple Events with Listeners	288
	- <i>Exercise Ten</i>	289

Section	Title	Page
Twenty	<b>JTextComponent</b>	<b>291</b>
	– Methods in JTextComponent	292
Twenty One	<b>Input Components</b>	<b>293</b>
	– Introduction	294
	– JTextField	295
	– JTextField Example	296
	– JTextField Initialisation	298
	– Other Methods for JTextField	299
	– Processing JTextField using getText()	301
	– Listeners for JTextField	302
	– FocusListener with JTextField	303
	– ActionListener with JTextField	305
	– JPasswordField	308
	– JPasswordField Example	309
	– setEchoChar()	311
	– JTextArea	312
	– JTextArea Example	313
	– JTextArea and setFocusable()	315
	– Wrapping text in JTextArea	317
	– Listeners with JTextArea	320
	– Some methods for JTextArea	321
	– JFormattedTextField	324
	– Initialising JFormattedTextField	325
	– Populating JFormattedTextField	328
	– Using setValue()	330
	– Listeners with JFormattedTextField	331
	– Using MaskFormatter	332
	– Using setFocusLostBehavior	334
	– requestFocusInWindow()	336
	– <i>Exercise Eleven</i>	337
Twenty Two	<b>GroupLayout</b>	<b>339</b>
	– Introduction	340
	– Sequential and Parallel Groups	341
	– addGap()	344
	– setAutoCreateGaps()	345
	– Changing Direction of Components	346
	– Chained Invocation or Method Chaining	347
	– Adding further Groups with addGroup()	348
	– Controlling Resizing with addComponent()	353
	– Using LinkSize to standardise sizing	356
	– Alignment	357
Twenty Three	<b>Selection Components</b>	<b>358</b>
	– JComboBox	359
	– Using addItem() with JComboBox	362
	– getSelectedItem() with JComboBox	363
	– ComboBoxModel with JComboBox	364
	– Some methods for JComboBox	365
	– ItemListener with JComboBox	367
	– JCheckBox	368
	– JCheckBox Example	369

Section	Title	Page
	- Initialising JCheckBox	370
	- Using HTML with JCheckBox	371
	- Images with JCheckBox	372
	- ItemListener with JCheckBox	373
	- JToggleButton	375
	- Initialising JToggleButton	376
	- Listeners with JToggleButton	377
	- JRadioButton	378
	- JRadioButton Example	380
	- Initialising JRadioButton	382
	- Icons with JRadioButton	383
	- ActionListener with JRadioButton	385
	- Using setActionCommand()	386
	- setActionCommand() Example	387
	- Using Enumeration	389
	- Using AbstractButton	392
	- <i>Exercise Twelve</i>	393
	- JList	398
	- JList Example	399
	- setLayoutOrientation() with JList	401
	- setSelectionMode() with JList	403
	- setPrototypeCellValue() with JList	405
	- setFixedCellWidth with JList	406
	- DefaultListModel with JList	407
	- DefaultListModel Example	408
	- Icons with DefaultListModels	410
	- Using Vectors	412
	- Methods for Vectors	413
	- getSelectedIndices() in JList	418
	- JList Listeners	419
	- ListSelectionListener	420
	- Using getSelectedValuesList()	421
	- ListDataListener	422
	- ListDataListener Example	423
	- <i>Exercise Thirteen</i>	425
	- JSpinner	428
	- SpinnerNumberModel	429
	- SpinnerNumberModel Example	430
	- Methods for SpinnerNumberModel	431
	- Change Orientation of JSpinner	432
	- ChangeListener with JSpinner	433
	- SpinnerListModel	434
	- SpinnerListModel Example	435
	- setPreferredSize()	436
	- ArrayLists with SpinnerListModel	438
	- SpinnerDateModel	439
	- SpinnerDateModel Example	441
	- DateEditor with SpinnerDateModel	443
	- JSlider	448
	- Initialising JSlider	449

Section	Title	Page
	- ChangeListener with JSlider	451
	- Placing Numbers on the JSlider	452
	- Placing ticking on the JSlider	453
	- setMinorTickSpacing() with JSlider	454
	- Customising the JSlider ticks	455
	- Some more JSlider methods	456
	- JSeparator	458
	- JSeparator Example	459
	- Using Box with JSeparator Example	461
	- <i>Exercise Fourteen</i>	463
<b>Twenty Four</b>	<b>JMenus and JPopupMenu</b>	<b>466</b>
	- Introduction	467
	- JMenuBar	468
	- JMenuBar Example	470
	- JMenu	471
	- JMenu Example	472
	- JMenuBar and JTextField	473
	- Mnemonic with JMenus	474
	- MenuListener	475
	- MenuListener Example	476
	- JMenuItem	478
	- JMenuItem Example	479
	- JMenuItem with Images	480
	- Mnemonic with JMenuItem	481
	- Accelerator with JMenuItem	482
	- Listeners with JMenuItem	484
	- JMenuItem and MenuKeyListener	485
	- Sub-Menus in JMenus	486
	- JCheckBoxMenuItem in JMenus	487
	- JCheckBoxMenuItem with Images	489
	- JCheckBoxMenuItem with ItemListener	490
	- JRadioButtonMenuItem in JMenus	491
	- JRadioButtonMenuItem Example	492
	- JRadioButtonMenuItem with JMenu Example	493
	- JRadioButtonMenuItem with Images	494
	- JRadioButtonMenuItem and Listeners	495
	- Using getActionCommand() with JRadioButton	496
	- Using Enumeration	497
	- JPopupMenu	498
	- JPopupMenu with MouseListener	499
	- MouseListener Examples	500
	- Event.isPopupTrigger()	502
	- PopupMenuListener	503
	- JToolBar	504
	- JToolBar Example	506
	- JToolBar and setFloatable()	508
	- JToolBar and Listeners	509
	- JToolBar and Icons	510
	- JToolBar Orientation	511
	- JToolBar with JTextFields	512

Section	Title	Page
	– addSeparator() with JToolBar	514
	– <i>Exercise Fifteen</i>	515
<b>Twenty Five</b>	<b>Look and Feel (LAF)</b>	<b>518</b>
	– Using setLookAndFeel()	519
	– Standard LAF Styles	521
	– javax.swing.plaf.metal.MetalLookAndFeel	523
	– javax.swing.plaf.nimbus.NimbusLookAndFeel	524
	– com.sun.java.swing.plaf.motif.MotifLookAndFeel	525
	– com.sun.java.swing.plaf.windows.WindowsLookAndFeel	526
	– com.sun.java.swing.plaf.windows.WindowsClassicLookAndFeel	527
	– Defaulting the LAF permanently in Java	528
	– Using Third Party LAFs	529
	– Installing the LAF in the Operating System	530
	– Identifying the Look and Feel Class in the Jar file	531
	– Using the third party LAF in Java	532
<b>Twenty Six</b>	<b>GridBagLayouts</b>	<b>533</b>
	– Introduction	534
	– GridBagConstraints	535
	– GridBagConstraints Example	538
	– gridx and gridy	543
	– gridx and gridy example	544
	– gridwidth and gridheight	547
	– gridwidth and gridheight example	548
	– GridBagConstraints.REMAINDER	551
	– fill	552
	– fill example	553
	– anchor	554
	– anchor examples	555
	– insets	557
	– insets example	558
	– ipadx and ipady	559
	– ipadx and ipady example	560
	– weightx and weighty	561
	– Final example	565
<b>Twenty Seven</b>	<b>JTable</b>	<b>571</b>
	– Introduction	572
	– JTable Example	573
	– Default Settings	576
	– setPreferredSize()	577
	– java.lang.ArrayIndexOutOfBoundsException	578
	– Problems with the TableColumnModel	579
	– Adding to a JPanel	580
	– Using DefaultTableModel()	581
	– Using addColumn()	582
	– setAutoCreateColumnsFromModel()	584
	– Changing the Width of Columns	585
	– setResizable()	587
	– Some Methods for JTable	588
	– Moving Columns Programmatically	589
	– Moving Rows Programmatically	590

Section	Title	Page
	– Setting the Selection Mode	591
	– isCellEditable()	594
	– Accessing Cells	596
	– Determining the Current Cell	597
	– ListSelectionListener	598
	– ListSelectionListener Example	599
	– TableModelListener	603
	– TableModelListener Example	605
	– <i>Exercise Sixteen</i>	608
<b>Twenty Eight</b>	<b>Mouse Double Click</b>	<b>611</b>
	– Introduction	612
	– Double Click Example	613
<b>Twenty Nine</b>	<b>JTree</b>	<b>615</b>
	– Introduction	616
	– JTree Example	617
	– Populating a JTree (Top to Bottom)	619
	– Expand()	622
	– Populating a JTree (Bottom to Top)	623
	– Populating a JTree with more levels	624
	– TreeExpansionListener	626
	– getLastSelectedPathComponent()	627
	– TreeSelectionListener	628
	– Customising the JTree	629
<b>Thirty</b>	<b>CardLayouts</b>	<b>631</b>
	– Introduction	632
	– CardLayout Example	633
	– <i>Exercise Seventeen</i>	637
<b>Thirty One</b>	<b>More Containers</b>	<b>642</b>
	– Introduction	643
	– JSplitPane	644
	– setDividerLocation() with JSplitPane	648
	– Using setResizeWeight with JSplitPane	649
	– JSplitPanes within JSplitPanes	650
	– JTabbedPane	652
	– JTabbedPane Example	654
	– Using addTab() with JTabbedPane	656
	– Inserting Tabs into a JTabbedPane	659
	– Removing Tabs in JTabbedPane	660
	– Positioning the Tabs	661
	– setTabLayoutPolicy for JTabbedPane	664
	– setMnemonic() with Tabs	666
	– Some Methods for JTabbedPane	667
	– ChangeListener with JTabbedPane	671
<b>Thirty Two</b>	<b>More Frames</b>	<b>673</b>
	– JInternalFrame	674
	– Using LAF with JInternalFrame	676
	– JInternalFrame Behaviour	677
	– Some JInternalFrame Methods	680
	– Adding Components to JInternalFrame	681
	– setJMenuBar() for JInternalFrame	682



Section	Title	Page
	– InternalFrameListener	683
	– isVisible() with JInternalFrame	685
	– JLayeredPane	686
	– JLayeredPane Example	690
	– Layouts in JLayeredPane	692
	– More methods for JLayeredPane	693
	– JDesktopPane	696
	– showInternalMessageDialog	697
	– showInternalConfirmDialog	700
	– <i>Exercise Eighteen</i>	705
<b>Thirty Three</b>	<b>JWindow</b>	<b>707</b>
	– Using JWindow	708
<b>Thirty Four</b>	<b>Swing Timers and Progress Bars</b>	<b>710</b>
	– Introduction	711
	– Methods for Swing Timers	714
	– Timers and Coalesce	716
	– JProgressBar	717
	– JProgressBar Example	718
	– JProgressBar Methods	720
	– Displaying text in the JProgressBar	721
	– JProgressBar Orientation	723
	– JProgressBar and ChangeListener	724
	– Using Threads to create a Splash screen	725
	– Cursors	727
	– Scope of Cursors	730
	– Creating a Custom Cursor	731
<b>Thirty Five</b>	<b>System Tray</b>	<b>732</b>
	– Introduction	733
	– System Tray Example	735
<b>Thirty Six</b>	<b>Java Built-in Choosers</b>	<b>738</b>
	– JColorChooser	739
	– ChangeListener	745
	– setPreviewPanel()	748
	– Using setColor()	749
	– Using AbstractColorChooserPanel	750
	– JFileChooser	752
	– setFileSelectionMode()	757
	– setControlButtonsAreShown()	759
	– FileFilter	760
	– setAcceptAllFileFilterUsed()	762
	– addChoosableFileFilter	763
	– Some Methods for JFileChooser	764
	– ActionListener with JFileChooser	765
	– <i>Exercise Nineteen</i>	768