

Chapter 1: Object Oriented Programming

Class Creation	1
Class Declaration	2
Class Constructors	3
Member Variable Declaration	6
Method Declaration - Details	7
Method Body	9
Local Variables	11
Inheritance - Managing	12
Members Inherited by a Subclass	12
Member Variables - Hiding	13
Overriding Methods	14
Overridden Method - Calling	15
Methods a Subclass Cannot Override	15
Methods a Subclass Must Override	15
Object Dependent	16
clone Method	17
equals and hashCode Methods	19
Final Classes and Methods - Writing	20
Security	20
Design	20
Final Methods	21
Abstract Classes and Methods - Writing	22
Abstract Methods	23
Abstract Class with an Abstract Method	23
Interface	25
Interface Example	26
Interface Definition	26
Interface Implementation	28
Packages	29
Classes - Placing in a Package	29
Package Creation	31
Package Naming	32
Package Members	33

Chapter 2: Java Archive File Format

JAR Files	1
JAR Files: The Basics	2
Viewing the Contents of a JAR File	4
Extracting the Contents of a JAR File	6
Modifying a Manifest File	7
Updating a JAR File	9
Running JAR-Packaged Software	10
Applets Packaged in JAR Files	10
JAR Files as Applications - 1.2 Platform Only	11

Chapter 3: Collections

Collections and Hierarchical Relationships	1
Framework Implementations	1
Collection Interface	2
Iterator Interface	3
Group Operations	4
Collections Framework Design	5
Set Interface	6
HashSet and TreeSet Classes	7
Set Usage	8
Arrays	9
Vector and Stack Classes	10
Enumeration Interface	11
Dictionary, Hashtable, and Properties Classes	12
Sorting Arrays	13
Searching	15
Equality Checking	16
Manipulating Elements	17

Chapter 4: Creating a User Interface with JFC

Java Foundation Classes	1
Simple Swing Code	2
Importing Swing Packages	2
Swing: Choosing the Look and Feel	3
Top-Level Container	4
Buttons and Labels: Set-up	5
Components: Adding to Containers	6
Borders: Adding Around Components	7
Handling Events	8
Swing Components	9
Layout Management	10
Setting the Layout Manager	10
Components: Putting Space Between Components	11
Event Handling	12
Event Handler Implementation	13
JComponent Class	14
Component Appearance: Customization	15
Component State: Setting	16
Size and Position Information	17
Absolute Size and Position	18
Top-Level Containers and Containment Hierarchies	19
Content Pane: Adding Components	20
Menu Bar: Adding	21
Frames: How to Make (Main Windows)	22
Responding to Window-Closing Events	23

Chapter 5: User Interface with JFC - Advanced Topics

Make Dialogs	1
Simple Dialogs: Creation and Showing	2
showOptionDialog	2
JOptionPane (constructor)	3
Button Text	4
Panels	5
Setting the Layout Manager	5
Components	6
Scroll Panes	7
Tabbed Panes	8
Atomic Components	9
Text Components	10
Text Area	11
Text Fields	11
Tool Tips	12
Buttons: Check Boxes, and Radio Buttons	13
Common Button API	14
JButton Features	16
Check Boxes	17
Radio Buttons	19
Combo Boxes	21
Uneditable Combo Box	21
Handling Events on a Combo Box	22
Editable Combo Box	22
Labels	23
Lists	24
Selecting Items in a List	25
Adding and Removing Items from a List	26
Menus	27
Creating Menus	27
Handling Events from Menu Items	29
Keyboard Operation - Enabling	30
Popup Menu	31
Tables	32
Creating a Simple Table	32
Adding a Table to a Container	33
Setting and Changing Column Widths	33
Borders	34

Chapter 6: Input/Output with Streams

Introduction	1
I/O Streams	2
OutputStream Class	3
PrintStream Class	4
Standard Input	5
Hierarchy Diagrams for I/O Streams	6
Streams	8
Filtered Streams	10

File Streams	11
Reading and Writing Files using Streams	12
Pipe Implementations using Streams	14
Random Access Files: Reading and Writing	17
Random Access Files and Filters	18
Filter Streams	20

Chapter 7: JDBC

JDBC - Purpose and Function	1
What Does JDBC Do?	2
JDBC is a Low-level API and a Base for Higher-level APIs	3
JDBC versus ODBC and Other APIs	4
Two-tier Model	5
Three-tier Model	6
JavaSoft Framework	7
Connection	8
Opening a Connection	8
URLs in General Use	9
JDBC URLs	10
The "odbc" Subprotocol	12
Sending SQL Statements	13
Transactions	15
DriverManager	16
Keeping Track of Available Drivers	16
Establishing a Connection	18
Statement Objects	19
Creating Statement Objects	19
Executing Statements Using Statement Objects	20
Statement Completion	20
Closing Statement Objects	21
Method Execute	22
ResultSet	24
Rows and Cursors	25
Columns	26
NULL Result Values	27
Mapping SQL and Java Types	28
CHAR, VARCHAR, and LONGVARCHAR	28
BINARY, VARBINARY, and LONGVARBINARY	29
Integers	30
Floating Numbers	31
DATE, TIME, and TIMESTAMP	31
JDBC Types Mapped to Java Types	35
Java Types Mapped to JDBC Types	36

Chapter 8: Debugging

Java Debugger Types.....	1
Debugging Sessions.....	2
Bug Types.....	2
Program Preparation.....	3
Breakpoint - Setting.....	4
Stepping through a Program.....	5
Inspecting Variables.....	6
Stack Traces.....	7
Diagnostic Methods.....	8
Debugging.....	9
Debugging with <code>system.out.println()</code>	9
Debugging Using Comments.....	9
Attaching to a Running Process.....	9
Debugging on Demand.....	10
Servlet Debugging.....	11
Multithread Bug Types.....	12
<code>synchronized()</code> Method.....	13
Multithread errors: Avoiding.....	14

Chapter 9: System Resources

System Resources.....	1
System Class.....	2
Standard I/O Streams.....	3
Standard Stream.....	4
System Properties.....	5
Reading System Properties.....	6
Writing System Properties.....	7
Forcing Finalization and Garbage Collection.....	8

Chapter 10: Threads and Sockets

Purpose and Function.....	1
Multithread.....	2
Threads.....	3
Thread Creation.....	4
Starting a Thread.....	4
Making a Thread Not Runnable.....	5
Timer and <code>TimerTask</code> Classes.....	7
Custom Subclass of <code>TimerTask</code>	8
Stopping Timer Threads.....	9
Repetitive Tasks.....	10
Customizing a Thread's Run Method.....	11
Subclassing Thread and Overriding Run.....	11
Runnable Interface Implementation.....	13
Compile and Run: Socket Client and Server.....	14
<code>actionPerformed</code> Method.....	16
Complete Server Listing.....	16
Client-Side Program.....	19
Complete Client Listing.....	21
Multithreaded Server.....	23