

SPRING 2009

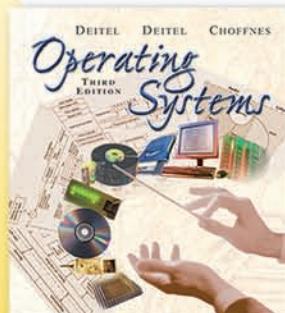
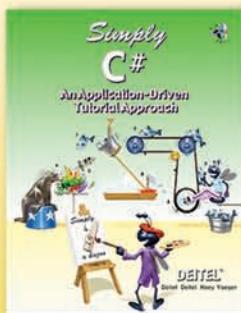
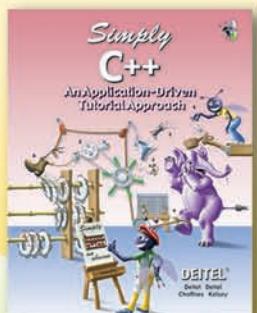
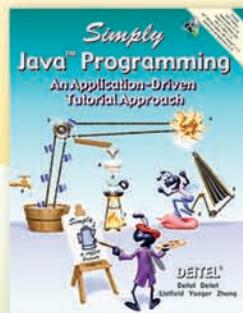
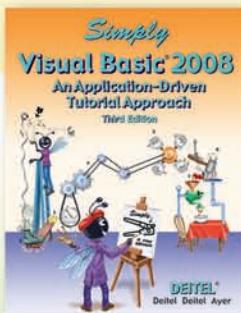
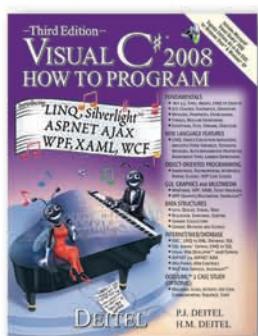
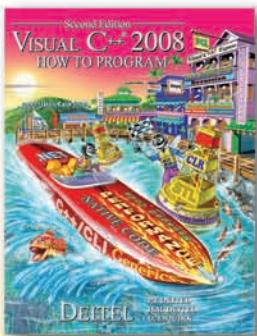
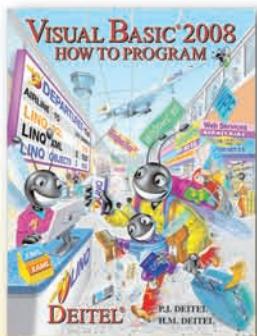
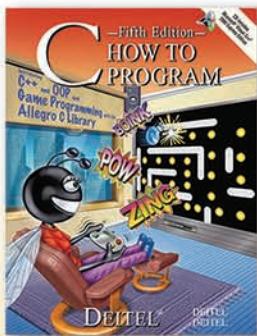
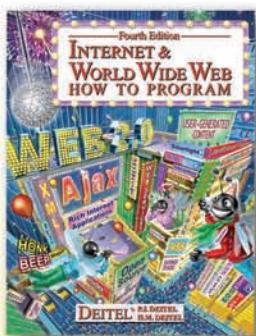
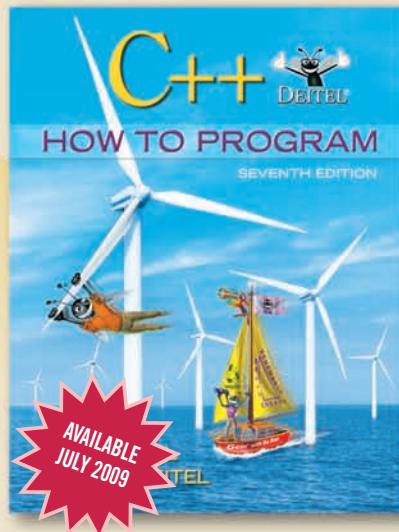
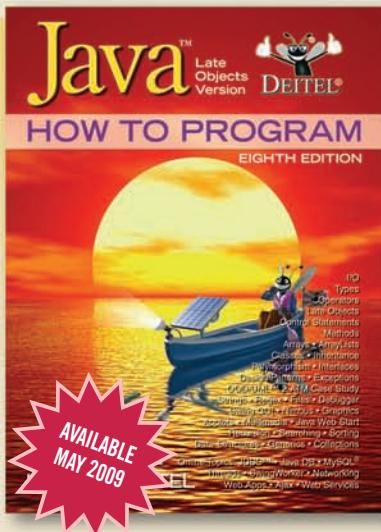
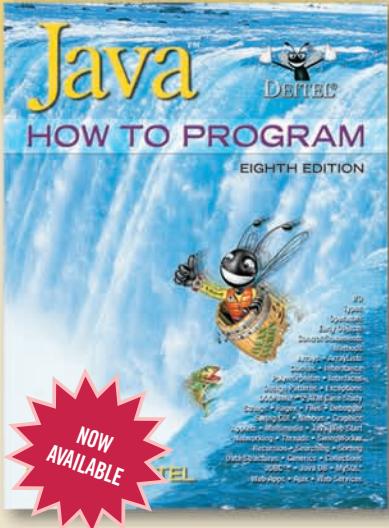
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- **Java How to Program, Eighth Edition**—Available now! See page 2 or visit www.deitel.com/books/jhtp8/.
- **Java How to Program, Eighth Edition, Late Objects Version**—Coming May 2009. See page 5 or visit www.deitel.com/books/jhtp8LateObjects/.
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```

1 // Fig. 8.3: MaximumFinder.java
2 // Programmer-declared method maximum with three double parameters.
3 import java.util.Scanner;
4
5 public class MaximumFinder
6 {
7     // obtain three floating-point values and locate the maximum value
8     public void determineMaximum()
9     {
10        // create Scanner for input from command window
11        Scanner input = new Scanner( System.in );
12
13        // prompt for and input three floating-point values
14        System.out.print(
15            "Enter three floating-point values separated by spaces: " );
16        double number1 = input.nextDouble(); // read first double
17        double number2 = input.nextDouble(); // read second double
18        double number3 = input.nextDouble(); // read third double
19
20        // determine the maximum value
21        double result = maximum( number1, number2, number3 );
22
23    }

```

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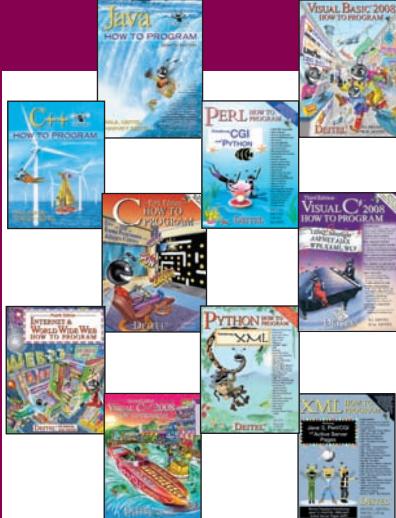


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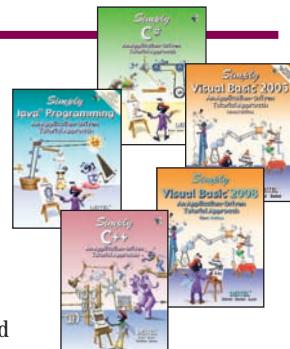
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First, a student is presented with a problem statement.

Application Requirements

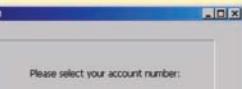
A local bank has asked you to create a prototype automated teller machine (ATM) application to access a database that contains fictitious customer records. Each record consists of an account number, Personal Identification Number (PIN), first name and balance amount. For testing purposes, valid account numbers will be provided in a ComboBox. The ATM application should allow the user to log in to an account by providing a valid PIN. Once logged in, the user can view the account balance and withdraw money from the account (if the account contains sufficient funds). If money is withdrawn, the application should update the database.

Test-Driving the ATM Application



Displays instructions and messages to the user

1. **Opening the completed application.** Open the directory C:\Examples\Tutorial125\CompletedApplication\ATM to locate the ATM application. Double click ATM.sln to open the application in Visual Studio .NET.
2. **Running the application.** Select Debug > Start to run the application (Fig. 25.1). The Form will appear with the OK, Balance, Withdraw and Done Buttons disabled.



Key segments of code are highlighted to draw students' attention to the important concepts.

Then, the student “test-drives” the completed application to understand its purpose and functionality, which they will be building throughout that tutorial.

Figure 17.13 String array that stores country names.

4. **Creating a Boolean array.** The application should not display any flag more than once. The application uses random-number generation to pick a flag, so the same flag could be selected more than once—just as, when you roll a six-sided die many times, a die face could be repeated. You will use a Boolean array to keep track of which flags have been displayed. Add lines 9–11 of Fig. 17.14 to FlagQuiz.vb. Lines 10–11 declare and create Boolean array m_blnUsed.

Finally, the student is guided through the code development for the textbook examples, or codes the solution for the exercises.

All applications are line numbered, making it easier for students to follow the discussions of the code in the surrounding text.

* *Simply C# An Application-Driven Tutorial Approach* is printed in two color.

CONTENTS

Spring 2009

- A Note from the Authors
- The DEITEL® BUZZ ONLINE Newsletter
- The DEITEL® How to Program Series
- The DEITEL® Simply Series

- Inside Front Cover
- Inside Front Cover
- Inside Front Flap
- Inside Front Flap

JAVA™

NEW!	Java™ How to Program, Eighth Edition	2
NEW!	Java How To Program Eighth Edition, Late Objects Version	5
	Simply Java™ Programming An APPLICATION-DRIVEN Tutorial Approach	6
	Small Java™ How to Program, Sixth Edition	22

C++/VISUAL C++/C

NEW!	C++ How to Program, Seventh Edition	7
	Visual C++® 2008 How to Program, Second Edition	9
	C How to Program, Fifth Edition	11
	Small C++ How to Program, Fifth Edition	22
	Simply C++ An Application-Driven Tutorial Approach	22
	Getting Started with Visual C++® 6.0 with an Introduction to MFC	22

INTERNET

Internet & World Wide Web How to Program, Fourth Edition	12
Perl How to Program	23
Python How to Program	23
e-Business & e-Commerce How to Program	23
e-Business & e-Commerce for Managers	23

.NET

Visual C++® 2008 How to Program, Second Edition	9
Visual Basic® 2008 How to Program	14
Visual Basic® 2005 How to Program, Third Edition	23
Visual C#® 2008 How to Program, Third Edition	16
Visual C#® 2005 How to Program, Second Edition	23
Simply Visual Basic® 2008, An Application-Driven Tutorial Approach, Third Edition	18
Simply Visual Basic® 2005 An Application-Driven Tutorial Approach, Second Edition	23
Simply C#® An APPLICATION-DRIVEN Tutorial Approach	19

COMPUTER SCIENCE THEORY

Operating Systems, Third Edition (Ordering information, page 20)	20
--	----

OPTIONS AND ORDERING INFORMATION

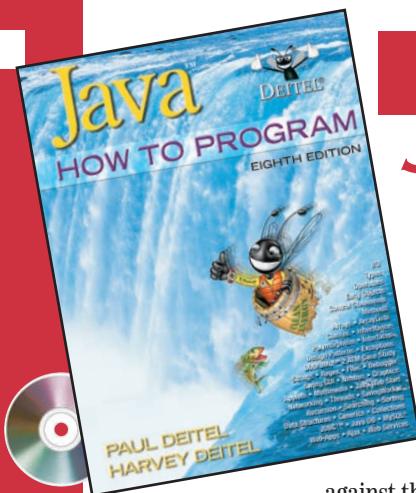
Deitel Custom Library	21
Options and Ordering	22–23
Examination Copy Information	Back Cover
International Ordering Information	Back Cover

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PearsonChoices including CourseSmart Textbooks Online™	24
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CONTENTS

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Modules

Introduction

1. Introduction to Computers, the Internet and the Web

Introduction to Programming and Introduction to Classes and Objects

2. Introduction to Java Applications
3. Introduction to Classes and Objects

Control Statements, Methods and Arrays

4. Control Statements: Part 1
5. Control Statements: Part 2
6. Methods: A Deeper Look
7. Arrays and ArrayLists

Object Oriented Programming

8. Classes and Objects: A Deeper Look
9. Object-Oriented Programming: Inheritance
10. Object-Oriented Programming: Polymorphism
11. Exception Handling (Old 13)

Object Oriented Design with the UML

12. (Optional) ATM Case Study, Part 1: Object-Oriented Design with the UML
13. (Optional) ATM Case Study, Part 2: Implementing an Object-Oriented Design

Graphics, GUI, Applets and Multimedia

14. GUI Components: Part 1 (Old 11)
15. Graphics and Java 2D™ (Old 12)
23. Applets and Java Web Start
24. Multimedia: Applets and Applications
25. GUI Components: Part 2

Strings and Files

16. Strings, Characters and Regular Expressions (Old 30)
17. Files, Streams and Object Serialization (Old 14)

Data Structures

18. Recursion (Old 15)
19. Searching, Sorting and Big O (Old 16)
20. Generic Collections (Old 19)
21. Generics (Old 18)
22. Data Structures (Old 17)

Multithreading and Networking

26. Multithreading (Old 23)

27. Networking (Old 24)

Database-Driven Desktop and Web Application Development

28. Accessing Databases with JDBC (Old 25)
29. Web Applications: Part 1 (Old 26)
30. Web Applications: Part 2 (Old 27)
31. JAX-WS Web Services (Old 28)

Appendices

- A. Operator Precedence Chart
- B. ASCII Character Set
- C. Keywords and Reserved Words
- D. Primitive Types
- E. Number Systems
- F. GroupLayout
- G. Java Desktop Integration Components (JDIC)
- H. Mashups
- I. Unicode®
- J. Using the Java API Documentation
- K. Creating Documentation with javadoc
- L. Bit Manipulation
- M. Formatted Output (Old 29)
- N. UML 2: Additional Diagram Types
- O. Labeled break and continue Statements
- P. Design Patterns
- Q. Using the Debugger

FOR INFORMATION ON OPTIONS AND ORDERING, PLEASE TURN TO PAGE 22.

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“Gives excellent descriptions of the search and sort algorithms, a gentle introduction to algorithmic complexity big-O notation, and presents good analysis for the algorithms. The examples give the code for the algorithms, and output that creates a picture of how the algorithms work.”—**Diana Franklin, University of California, Santa Barbara**

“Suitable for new programmers wanting to learn Java programming, for intermediary level programmers who want to hone their programming skills, and for expert level programmers who need a well-organized reference book. The exercises are very helpful.”—**Manjeet Rege, Ph.D., Rochester Institute of Technology**

“The fundamental concepts of the JDBC API are explained well and illustrated with full-length annotated programs.”—**Shyamal Mitra, University of Texas at Austin**

“The social-consciousness exercises seem to be something really new and refreshing—they are very interesting and appropriate.”—**José Antonio González Seco, Parliament of Andalusia**

New! “Making a Difference” Exercises Set: Students want to make a difference. We’re encouraging them to associate computers and the Internet with solving problems that really matter to individuals, communities, countries and the world. We hope that our new exercises encourage students to think for themselves as they explore complex social issues. These exercises are not intended to make a political statement. They are meant to increase awareness of important issues the world is facing. Students should approach these issues in the context of their own values, politics and beliefs. Many of the new exercises require students to do research on the web—and weave the results into their problem-solving process. Here’s a list of the 34 new “Making a Difference” exercises:

- Test Drive: Carbon Footprint Calculator
- Test Drive: Body Mass Index Calculator
- Attributes of Hybrid Vehicles
- Gender Neutrality
- Body Mass Index Calculator
- World Population Growth Calculator
- Car Pool Savings Calculator
- Target Heart Rate Calculator
- Computerization of Health Records
- Enforcing Privacy with Cryptography
- World Population Growth
- Global Warming Facts Quiz
- Tax Plan Alternatives; The “Fair Tax”
- Computer-Assisted Instruction
- Computer-Assisted Instruction: Reducing Student Fatigue
- Computer-Assisted Instruction: Monitoring Student Performance

- Computer Assisted Instruction: Difficulty Levels
- Computer-Assisted Instruction: Varying the Types of Problems
- Polling
- Air Traffic Control
- Carbon Footprint Interface: Polymorphism
- Ecofont
- Typing Tutor: Tuning a Crucial Skill in the Computer Age
- Large Type Displays for People with Low Vision
- Cooking with Healthier Ingredients
- Spam Scanner
- Phishing Scanner
- Accessibility Project: Speech Synthesis
- Accessibility Project: Speech Recognition
- Project: Simbad Robotics Simulator
- SPAM Scanner Web Service
- SMS Web Service
- Gender Neutrality Web Service

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JAVA HOW TO PROGRAM, EIGHTH EDITION

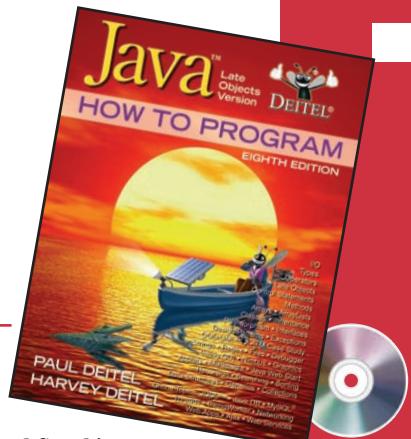
LATE OBJECTS VERSION

Paul J. Deitel and Harvey M. Deitel, both of Deitel & Associates, Inc.

© 2010, 900 pp., paper (0-13-612371-6)

CourseSmart version of full text coming soon! (See page 24)

NEW!



FEATURES:

- Begins with a rich treatment of procedural programming, including two full chapters on control statements and 200+ exercises.
- It offers the option to cover objects near the end of the CS 1 course or at the beginning of CS 2. The book emphasizes top-down, stepwise refinement with pseudocode.
- Uses UML activity diagrams instead of older flowcharts.
- Using objects before writing your own classes (required built-in classes): Students will eventually need to learn object-oriented programming. While learning procedural programming, students will use various built-in classes and objects from the Java APIs. Students will:
 - Use Scanner objects to read input from the keyboard.
 - Use the System.out object to display text output in a command window.
 - Use String objects to manage and manipulate string information.
 - Use Formatter, Scanner and File objects manipulate text files on disk.

- Using objects before writing your own classes (optional GUI and graphics built-in classes): In addition, the optional GUI and Graphics track provides a fun way for students to learn about manipulating objects while learning procedural programming. Students will:
 - Use various GUI classes to build simple graphical user interfaces.
 - Use a Graphics object to draw shapes in a window using various procedural programming techniques.
- Includes the new "Making a Difference" exercise set with the goal of raising awareness and empowering students to use computers and the Internet to solve problems that really matter to individuals, communities, countries and the world. The remainder of the book presents a thorough treatment of object-oriented programming.
- PowerPoint slides redesigned: Windows users can also execute the programs from the slides and open the source code in NetBeans (working now) and Eclipse (under development) by clicking buttons.

CONTENTS

Includes optional GUI and Graphics track sections in Chapters 3–10. For the detailed Contents, visit
www.deitel.com/books/jhtp8L0/

Procedural Programming

- Introduction and Basic Java Programming
- Control Statements: Part 1
- Control Statements: Part 2
- Methods and an Introduction to Recursion
- Arrays
- Introduction to Strings and Files

Object-Oriented Programming

- Introduction to Classes and Objects
- Classes and Objects: A Deeper Look
- Object-Oriented Programming: Inheritance
- Object-Oriented Programming: Polymorphism
- Exception Handling

(Optional) Object-Oriented Design with the UML

- (Optional) ATM Case Study, Part 1: Object-Oriented Design with the UML
- (Optional) ATM Case Study, Part 2: Implementing an Object-Oriented Design

Graphics, GUI, Applets and Multimedia

- GUI Components: Part 1
- Graphics and Java 2D™
- Applets and Java Web Start
- Multimedia: Applets and Applications
- GUI Components: Part 2

Strings, Files and Streams

- Strings, Characters and Regular Expressions
- Files, Streams and Object Serialization

Data Structures

- Recursion
- Searching, Sorting and Big O
- Generic Collections
- Generics
- Data Structures

Multithreading and Networking (Online Chapters)

- Multithreading
- Networking

Database-Driven Desktop and Web Application Development (Online Chapters)

- Accessing Databases with JDBC

29. JavaServer™ Faces (JSF) Web Applications

- Ajax-Enabled JSF Web Applications
- JAX-WS Web Services

Appendices

(Some will appear online.)

- Operator Precedence Chart
- ASCII Character Set
- Keywords and Reserved Words
- Primitive Types
- Number Systems
- GroupLayout
- Java Desktop Integration Components (JDIC)
- Mashups
- Unicode®
- Using the Java API Documentation
- Creating Documentation with javadoc
- Bit Manipulation
- Formatted Output
- UML 2: Additional Diagram Types
- Labeled break and continue Statements
- Design Patterns
- Using the Debugger

Notes:

- Chapters 2–6 and 8–10 contain an optional GUI and graphics case study.
- Chapters 14 and 15 continue the optional GUI and graphics case study with exercises that build on the programs developed in Chapters 2–6 and 8–10.

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Testimonials

Here are the pre-publication reviewer testimonials on the procedural-programming chapters from the regular edition of *Java How to Program, 8/e*, which is being published in early March. In that book, most of these chapters appear after our early introduction to objects and may include some object technology. Below, we list the testimonials using the chapter numbers from the proposed late objects edition.

“Introduces the ideas of good design practices and methodologies right from the beginning.” —**Simon Ritter, Sun Microsystems**

“The chapter is a really great introduction to the Java language and the platforms for a new developer. I like the operator precedence illustration because it explains the issue without complicating the matter with parsing and syntax.” —**Peter Pilgrim, Java Champion, Lloyds TSB Corporate Markets**

“I like the fact that UML is integrated with the discussion.” —**Edward F. Gehringer, North Carolina State University**

“Introduces basic control structures in a well-organized manner.” —**Diana Franklin, University of California, Santa Barbara**

“This is a comprehensive coverage of loops, and integrates UML well. I like the fact that the various ways of relating loops (stacking and nesting) are described.” —**Edward F. Gehringer, North Carolina State University**

“I like the Software Engineering Observations that subtly reinforce essential programming perspectives by providing the reasoning to support the principles.” —**Ric Heishman, George Mason University**

“This chapter is well written and covers if and while in detail with many examples and a good number of exercises.” —**Susan Rodger, Duke University**

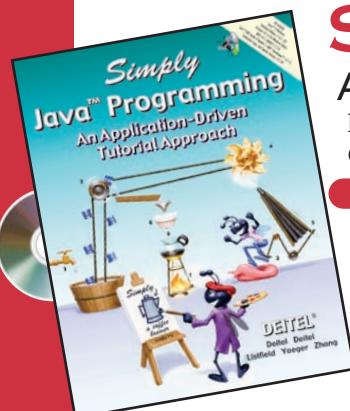
“Another great chapter!” —**José Antonio González Seco, Parliament of Andalusia**

“A lot of great exercises.” —**Sue McFarland Metzger, Villanova University**

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Instructor resources include the Test Item File, PowerPoint slides, solutions, lab manual and course management tools. Please visit www.pearsonhighered.com/educator to create an account. Please contact your Pearson Education sales representative for further details on instructors' resources.

Our new Java Resource Centers at www.deitel.com/resourcecenters.html provide links to many free popular Java IDEs and to tutorials for getting started with key IDEs.



SIMPLY JAVA™ PROGRAMMING

An Application-Driven Tutorial Approach

Paul J. Deitel, Harvey M. Deitel, Jeffrey A. Listfield, Cheryl H. Yaeger and Su Zhang

© 2004, 971 pp., paper (0-13-142648-6)

See full table of contents at www.deitel.com/books/simplyjavat/simplyjavat_01TOC.pdf

Readers build and execute complete applications from start to finish while learning the basics of programming from the ground up! For more information on the *Simply* series, see the inside front flap.

Here's what our reviewers had to say:

“What especially impresses me about this text is the absolutely wonderful set of exercises that the authors have included to motivate students to learn programming.” —**Ed Wehrauch, Community College of Allegheny County**

“This book is a wonderful way to get started in Java for those who learn best by doing; you don't just read about language constructs, you build real modern computer applications that demonstrate them as you follow the step-by-step tutorials.” —**Paul McLachlan, Compuware Corporation**

CD-ROM WITH EVERY TEXT INCLUDES:

- Java Software Development Kit Standard Edition Version 1.4.1 for Windows and Linux (Intel x86)
- Source code for all the book's examples
- Software including Java™ 2 Platform Standard Edition v.1.4.1_02, JCreator LE v.2.50 (Windows Only), jEdit v.4.1; jGRASP v.1.5.3, Sun™ ONE Studio 4 Update 1, IBM® Cloudscape™ v.5.1.3 Evaluation Copy and Apache Tomcat v.4.1.24

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C++ HOW TO PROGRAM, SEVENTH EDITION

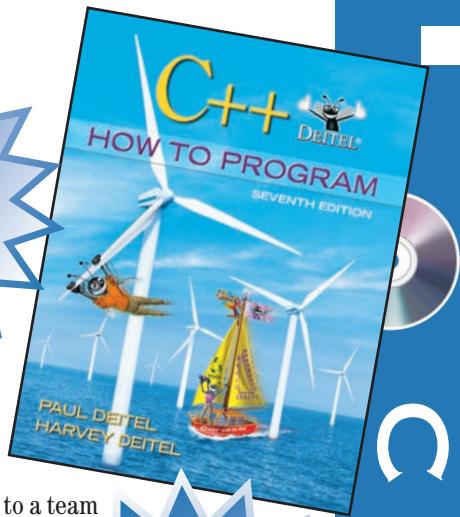
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NEW!

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Includes
Microsoft Visual
C++ 2008
Express Edition
(with purchase of
a new book)



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www.deitel.com/cplusplusboostlibraries/
www.deitel.com/cplusplusgameprogramming/

- New “Making a Difference” exercise set: See the description on page 4 under *Java How to Program, 8/e*.
- New interior design that graphically organizes, clarifies and highlights the information and enhances the book’s pedagogy.
- Programming idiom has been brought up to the most current standards.
- All content has been carefully tuned in response to a team of distinguished academic and industry reviewers.
- We tuned the optional object-oriented design/UML 2 automated teller machine (ATM) case study and reorganized it into two optional chapters that present the ATM’s design and complete code implementation.
- Modular organization: We reordered the chapters to facilitate teaching the book in modules.
- New early emphasis on **classes**, **vector** and **string**.
- New emphasis on testing and debugging.
- Camtasia-based Video Notes replace the audio descriptions in the C++ Multimedia Cyber Classroom.
- PowerPoint slides redesigned: Windows users can also execute the programs from the slides and open the source code in **Visual C++ 2008** by clicking buttons.
- And much more!

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Please also see *Small C++ How to Program, 5/e* (page 22) and *Visual C++ 2008 How to Program, 2/e* (page 9).

Here's what our reviewers had to say about the previous edition:

“An excellent ‘objects first’ coverage of C++ that remains accessible to beginners. The example-driven presentation is enriched by the optional UML case study that contextualizes the material in an ongoing software engineering project.”—**Gavin Osborne, Saskatchewan Institute of Applied Science and Technology**

“Introducing the UML to students early on is a great idea.”—**Raymond Stephenson, Microsoft**

“Good use of diagrams, especially of the activation call stack and recursive functions.”—**Amar Raheja, California State Polytechnic University, Pomona**

“Terrific discussion of pointers—probably the best I have seen.”—**Anne B. Horton, Lockheed Martin**

“Great coverage of polymorphism and how the compiler implements polymorphism ‘under the hood.’ I wish I had such a clear presentation of data structures when I was a student.”—**Ed James-Beckham, Borland**

“Includes a nice introduction to searching and sorting, and Big-O.”—**Robert Myers, Florida State University**

CD-ROM WITH EVERY TEXT INCLUDES:

- Microsoft Visual C++ 2008 Express Edition

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Visit our C++ Resource Center (www.deitel.com/cplusplus) for links to tutorials that will help your students get started with various compilers and IDEs.

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Testimonials Continued From Page 7

“Ogre is a free world-class rendering engine that has been used in several commercial games. The Ogre chapter is a great introduction, providing well documented and easy to understand examples that will have you creating your own simple computer games in no time! ”

— **Casey Borders (Creator of OgreAL), Sensis Corp.**

“Getting a new user to the stage of creating a functional and playable Ogre-based computer game in 40 pages is a great achievement.”

— **Steve Streeting (Creator of Ogre), Torus Knot Software Ltd.**

“The Boost/C++0x chapter will get you up and running quickly with memory management and regular expression libraries, plus whet your appetite for new C++ features being standardized.” — **Ed Brey, Kohler Co.**

“Excellent introduction to the Standard Template Library (STL). The best book on C++ programming for the serious student! ”

— **Richard Albright, Goldey-Beacom College**

“Just when you think you are focused on learning one topic, suddenly you discover you’ve learned more than you expected. ”

— **Chad Willwerth, University of Washington, Tacoma**

“The most thorough C++ treatment I’ve seen. Replete with real-world case studies covering the full software development lifecycle.

Code examples are extraordinary!” — **Terrell Hull, Logicalis Integration Solutions**

CONTENTS

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Introduction

1. Introduction to Computers, the Internet and World Wide Web

Introduction to Programming and Introduction to Classes and Objects

2. Introduction to C++ Programming
3. Introduction to Classes and Objects

Control Statements, Functions, Arrays, Vectors and Pointers

4. Control Statements: Part 1
5. Control Statements: Part 2
6. Functions and an Introduction to Recursion
7. Arrays and Vectors
8. Pointers and Pointer-Based Strings

Object-Oriented Programming

9. Classes: A Deeper Look, Part 1
10. Classes: A Deeper Look, Part 2
11. Object-Oriented Programming: Inheritance
12. Object-Oriented Programming: Polymorphism
- (Optional) Object-Oriented Design with the UML

13. (Optional) ATM Case Study, Part 1: Object-Oriented Design with the UML
14. (Optional) ATM Case Study, Part 2: Implementing an Object-Oriented Design

Templates, Exceptions and Operator Overloading

15. Exception Handling
16. Templates
17. Operator Overloading; String and Array Objects

Strings, Streams and Files

18. String Processing with Class string (can be taught anytime after Chapter 7)
19. Stream Input/Output
20. File and String Stream Processing

Data Structures

21. Searching and Sorting
22. Data Structures
23. Standard Template Library (STL)

Additional Topics

24. Bits, Characters, C-Strings and structs
25. Game Programming with Ogre
26. Boost Libraries, Technical Report 1

and C++0x

27. Other Topics

Appendices

- A. Operator Precedence and Associativity Chart
- B. ASCII Character Set
- C. Fundamental Types
- D. Number Systems
- E. C Legacy Code Topics
- F. Preprocessor
- G. UML 2: Additional Diagram Types
- H. Using the Visual Studio® 2008 Debugger
- I. Using the GNU™ C++ Debugger

Bibliography

Index

[Note: The next version of the C++ standard is likely to appear in 2010. Chapter 26 overviews many capabilities being considered as enhancements to the standard. This chapter includes some code examples and links to web resources for additional information and code examples. We provide extensive links to resources on the Boost libraries and C++0x in our C++ Resource Center at www.deitel.com/cplusplus/.]

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VISUAL C++® 2008 HOW TO PROGRAM SECOND EDITION

Paul J. Deitel, Harvey M. Deitel, and Daniel T. Quirk,
all from Deitel & Associates, Inc.

© 2008, 1497 pp., paper (0-13-615157-4)

Visual C++ 2008 How to Program, 2/e presents the C++ programming language with a Microsoft focus using Microsoft's Visual C++ 2008 Express integrated development environment. The book uses an easy-to-follow, carefully developed early classes and early objects approach, mirroring that of *C++ How to Program, 6/e*. We've also included the optional automated teller machine (ATM) case study that teaches the fundamentals of software engineering and object-oriented design with UML® 2.0.

Microsoft has determined that the vast majority of developers who create .NET managed-code applications use Visual C# or Visual Basic, and that Visual C++ developers primarily focus on native C++ applications. As a result, this new edition uses a native-code approach to introduce programming concepts and supplements chapters with managed code detail using Microsoft's C++/CLI where applicable. This allows students to learn programming fundamentals and object-oriented design in traditional C++ with Visual C++ 2008. They then have the option to learn .NET programming with managed code using C++/CLI in a way that mirrors the native-code concepts.

When we discuss string processing in our native-code presentation, we focus on C++'s `string` class and emphasize the dangers of C-style `char *` strings. We do not cover any GUI or graphics programming in native or managed code—GUI-based Windows applications tend to be implemented with Visual C# or Visual Basic. The last few chapters of the book—which cover database, regular expressions, generics and collections—focus on more advanced managed-code concepts with C++/CLI.

For more information about this book, please visit www.deitel.com/books/vcpphtp2/

FEATURES:

- Focus on developing and debugging Visual C++ native-code programs using Microsoft's **Visual Studio 2008 IDE**
- Introduction to the **Common Language Runtime (CLR)** and Microsoft's **.NET Framework**
- New coverage of memory management including the managed heap and the CLR garbage collector
- Uses managed code in **C++/CLI** to write programs for the .NET Framework
- Learn advanced object-oriented concepts with .NET **generics** and **collections**
- Comprehensive coverage of the C++ **Standard Template Library**

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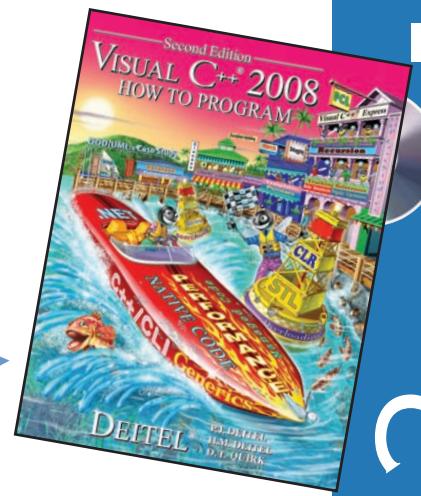
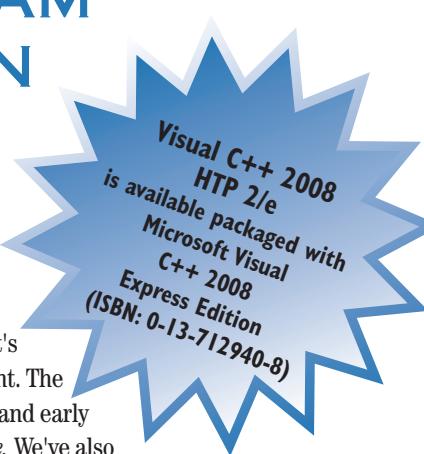
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CONTENTS

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- Chapter 1: Introduction to Computers, the Internet and Visual C++**
- Chapter 2: Dive Into® Visual C++® 2008 Express**
- Chapter 3: Introduction to Visual C++ Programming**
- Chapter 4: Introduction to Classes and Objects**
- Chapter 5: Control Statements: Part 1**
- Chapter 6: Control Statements: Part 2**
- Chapter 7: Functions and an Introduction to Recursion**
- Chapter 8: Arrays and Vectors**
- Chapter 9: Pointers and Pointer-Based Strings**
- Chapter 10: Classes: A Deeper Look, Part 1**
- Chapter 11: Classes: A Deeper Look, Part 2**
- Chapter 12: Operator Overloading; String and Array Objects**
- Chapter 13: Object-Oriented Programming: Inheritance**
- Chapter 14: Object-Oriented Programming: Polymorphism**
- Chapter 15: Templates and Generics**
- Chapter 16: Exception Handling**

- Chapter 17: Stream Input/Output and Files**
- Chapter 18: Files and Streams in .NET**
- Chapter 19: Class string and String Stream Processing**
- Chapter 20: Searching and Sorting**
- Chapter 21: Data Structures**
- Chapter 22: Bits, Characters, and Structs**
- Chapter 23: Standard Template Library (STL)**
- Chapter 24: Regular Expressions**
- Chapter 25: Collections**
- Chapter 26: Other Topics**
- Appendix A: Operator Precedence and Associativity Chart**
- Appendix B: ASCII Character Set**
- Appendix C: Fundamental Types**
- Appendix D: Number Systems**
- Appendix E: Preprocessor**
- Appendix F: ATM Case Study Code**
- Appendix G: Additional Diagram Types**
- Appendix H: Using the Visual Studio Debugger**
- Index**

Here's what our reviewers had to say:

“Great book for learning how to use Visual C++ 2008 in building Microsoft Windows applications. Great introduction to the Visual Studio IDE. I like the introduction of native heap management followed by gcnew. Good job covering the differences between templates and generics.”

—Mykola Dudar, Microsoft

“One of the *BEST* C++ texts I've seen! A fine tool for learning and reference. One of the more thorough sections on classic arrays and pointers. Nice explanation of how vtables work to implement polymorphism. Solid chapter on exceptions. The string processing exercises are fun. Coverage of Big O is a big plus for this book. I like your graphical explanation of linked lists. The Simpletron exercise looks very exciting. I particularly appreciate the discussions of the underlying implementation of various STL containers that help the reader choose one container over another.” —Ronald DiNapoli, Cornell University

“An excellent job of introducing students to the C++ language and modern software engineering practices. The authors have also included information on programming in C++/CLI, the version of C++ for managed programming.” —Gordon Hogenson, Microsoft and author of **C++/CLI: The Visual C++ Language for .NET**

“A comprehensive introduction to Microsoft's implementation of the C++ programming language. The ATM case study represents a great end-to-end example of the process of software design and implementation using UML. Readers will become comfortable in the managed and interop worlds, using C++/CLI. Well-structured introduction to recursion. Nice evolutionary approach demonstrating the value of inheritance in the Employee hierarchy. Comprehensive section on generics. Terminology in the CLI chapters is very .NET”

—Vytautas Leonavicius, Microsoft

“The possibilities for Visual C++ and C++/CLI are endless, so it would seem a daunting task to present these powerful languages in a fashion suited for beginning and intermediate C++ programmers. This text has the right topic mix and flow of learning for programmers of all levels. The continuous use of examples and exercises, and the OOD/UML ATM case study ensure that readers can immediately begin writing solid programs.” —April Reagan, Microsoft

“Exercises on Knight's Tour and Eight Queens give a strong visual feeling of two-dimensional arrays. The Searching and Sorting chapter can supplement data structures courses. Exercises on binary trees and stacks with reverse Polish notation are commendable. Regular expression exercises are great.” —Tim H. Lin, California State Polytechnic University, Pomona

“Creates the mindset needed to tackle any programming challenge with the full power of the C++ language, and educates you in C++/CLI, language extensions for the Microsoft .NET Platform. I like the special attention you give to code readability. Case studies do a great job teaching design skills. Good introductions to OOP, data structures, compilers [in the exercises] and collections in .NET.”

—Alvin Chardon, Microsoft

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C HOW TO PROGRAM, FIFTH EDITION

Paul J. Deitel and Harvey M. Deitel, both from Deitel & Associates, Inc.

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The Fifth Edition of the world's best-selling C textbook is designed for introductory through intermediate courses. Highly practical in approach, it introduces fundamental notions of structured programming and software engineering and gets up to speed quickly. The book covers the full C language, key library functions and object-oriented programming in C++. The Fifth Edition features an updated introduction to C++, and new chapters on the C99 standard and game programming with the Allegro C library.

CONTENTS

Preface

Part 1: C

- 1. Introduction to Computers, the Internet and the Web
- 2. Introduction to C Programming
- 3. Structured Program Development in C
- 4. C Program Control
- 5. C Functions
- 6. C Arrays
- 7. C Pointers
- 8. C Characters and Strings
- 9. C Formatted Input/Output
- 10. C Structures, Unions, Bit Manipulations and Enumerations

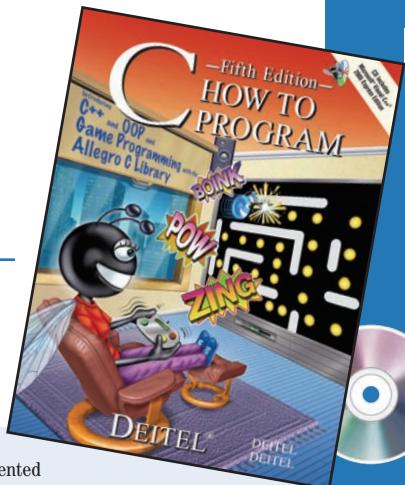
- 11. C File Processing
 - 12. C Data Structures
 - 13. C Preprocessor
 - 14. Other C Topics
 - 15. Game Programming in C with Allegro
 - 16. Searching: A Deeper Look
 - 17. Introduction to C99
- Part 2: C++**
- 18. C++ as a "Better C"
 - 19. Introduction to Classes and Objects
 - 20. Classes: A Deeper Look, Part 1
 - 21. Classes: A Deeper Look, Part 2
 - 22. Operator Overloading
 - 23. Object-Oriented Programming: Inheritance

- 24. Object-Oriented Programming: Polymorphism
- 25. Templates
- 26. Stream Input/Output
- 27. Exception Handling

Appendices

- A. Internet and Web Resources
- B. Operator Precedence Charts
- C. ASCII Character Set
- D. Number Systems
- E. C Standard Library Resources

Index



Here's what our reviewers had to say:

For more information about this book, please visit www.deitel.com/books/chtp5

"I have been teaching introductory programming courses since 1975, and programming in the C language since 1986. In the beginning there were no good textbooks on C—in fact there weren't any! When Deitel, C How to Program, 1/e, came out, we jumped on it—it was at the time clearly the best text on C. The new edition continues a tradition—it's by far the best student-oriented textbook on programming in the C language—the Deitels have set the standard—again! A thorough, careful, student-oriented treatment of not just the language, but more importantly, the ideas, concepts, and techniques of programming! The addition of "live code" is also a big plus—encouraging active participation by the student. A great text!"

—Richard Albright, Goldey-Beacom College

"C How to Program, 5/e, continues a tradition of excellence as a C textbook. The book presents C clearly and accurately, targeting beginning programmers with a well-organized exposition which builds from simple concepts to ultimately describing the complete language. The entire language is presented, which makes the book valuable for experienced programmers. An addition to the fifth edition is a chapter on game programming using the Allegro library, which will whet the appetites of many budding programmers. This is an exceptional textbook and reference for the C programmer." —Ray Seyfarth, University of Southern Mississippi

"A great book for the beginning programmer. Covers material that will be useful in later programming classes and the job market." —Fred J. Tydeman, Tydeman Consulting, Vice-chair of J11 (ANSI "C")

"Of any C textbook on the market, the Deitel book easily provides the clearest and most in-depth approach to standard C programming for students of all abilities. With the Deitel C textbook, my students have a tremendous resource that will enable them to succeed not only in my classroom but in the professional workplace for years to come." —William Smith, Tulsa Community College

"This book is an invaluable resource for both beginning and seasoned programmers. The authors' approach to explaining the concepts, techniques, and practices is comprehensive, engaging, and easy to understand. This is a must-have book." —Bin Wang, Department of Computer Science and Engineering, Wright State University

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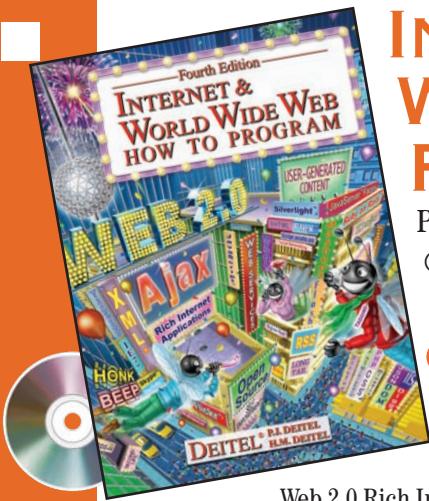
Our C Resource Center at www.deitel.com/c/ provides links to many free popular C and C++ IDEs and to tutorials for getting started with C and C++ IDEs.

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INTERNET & WORLD WIDE WEB HOW TO PROGRAM, FOURTH EDITION

Paul J. Deitel and Harvey M. Deitel

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Internet and World Wide Web How to Program, 4/e introduces students with little or no programming experience to the exciting world of Web-based applications. The book has been substantially reworked to reflect today's

Web 2.0 Rich Internet Application-development methodologies. A comprehensive book that teaches the fundamentals needed to program on the Internet, this text provides in-depth coverage of introductory programming principles, various markup languages (XHTML, Dynamic HTML and XML), several scripting languages (JavaScript, PHP, and Ruby/Ruby on Rails), Ajax, web services, web servers (IIS and Apache) and relational databases (MySQL/SQL Server Express/Apache Derby/Java DB)—all the skills and tools needed to create dynamic Web-based applications. The text contains comprehensive introductions to ASP .NET 2.0 and JavaServer Faces (JSF). Hundreds of live-code examples of real applications throughout the book allow readers to run the applications and see and hear the outputs. The book provides instruction on building Ajax-enabled Rich Internet Applications that enhance the presentation of online content and give web applications the look and feel of desktop applications. The chapter on Web 2.0 and Internet business exposes readers to a wide range of other topics associated with Web 2.0 applications and businesses. After mastering the material in this book, students will be well prepared to build real-world, industrial-strength, Web-based applications.

NEW FEATURES:

- Substantially reworked to reflect today's Web 2.0 Rich Internet Application-development methodologies.
- Coverage of the two leading web browsers—Internet Explorer 7 and Firefox 2.
- New focus on Web 2.0 technologies and concepts.
- New chapter on Web 2.0 and Internet Business.
- New focus on building Rich Internet Applications with the interactivity of desktop applications.
- New chapter on building Ajax-enabled web applications, with features including partial-page updates and type-ahead capabilities.
- New chapter on Adobe Flex—a Rich Internet Application framework for creating scalable, cross-platform, multimedia-rich applications for delivery within the enterprise or across the Internet.
- New chapter on Microsoft Silverlight (a competitor to Adobe Flash and Flex)—a cross-browser and cross-platform plug-in for delivering .NET-based Rich Internet Applications (e.g., audio, video and animations) over the Web.
- New chapter on building database-driven web applications with Ruby and Ruby on Rails—a technology that facilitates quick web development.
- Updated chapter on Adobe Dreamweaver CS3 (previously Macromedia Dreamweaver 8), including new sections on CSS

integration and the Ajax-enabled Spry framework.

- Updated chapters on Flash CS3 (previously Macromedia Flash 8).
- Significantly enhanced treatments of XHTML DOM manipulation and JavaScript events.
- Significantly enhanced treatment of XML DOM manipulation with JavaScript.
- New chapter on building SOAP-based web services with Java and REST-based web services with ASP.NET.
- Updated and enhanced PHP chapter, covering PHP 5.
- Updated ASP.NET 1.1 coverage to ASP.NET 2.0, featuring ASP.NET Ajax.
- New JavaServer Faces (JSF) coverage emphasizing building Ajax-enabled JSF applications (replaces Servlets and JavaServer Pages).
- Client-side case studies that enable students to interact with preimplemented server-side applications and web services that we will host at www.deitel.com.
- Several new and updated case studies including Deitel Cover Viewer (JavaScript/DOM), Address Book (Ajax), Cannon Game (Flash), Weather/Yahoo! Maps Mashup (Flex), Movie Player (Silverlight), Mailing List (PHP/MySQL), Message Forum and Flickr Photo Viewer (Ruby on Rails), GuestBook and Secure Books Database (ASP.NET), Address Book with Google Maps (JavaServer Faces) and Blackjack (JAX-WS web services).

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Chapter 3, Dive Into® Web 2.0, is also available as a free, frequently updated HTML-based e-book at www.deitel.com/freeWeb20ebook/. It is also available as a downloadable, fully-formatted PDF for a small fee. Check this site for the latest hyperlink-rich version. Many of the topics in this chapter are supplemented by extensive Resource Centers at www.deitel.com/resourcecenters.html. The e-book and the PDF link to the Resource Centers and other web resources for further study.

Here's what our reviewers had to say:

- “This book is easily the most comprehensive resource of its kind I've seen yet.” —Jesse James Garrett, Adaptive Path
“A one-stop shop for learning the essentials of web programming.” —Anand Narayanaswamy, ASPAlliance.com
“Excellent for learning to develop standards-compliant web applications...takes you from the browser to the server and the database, covering web development across many programming languages.” —Paul Vencill, MITRE, Inc.
“A good job of explaining both Internet Explorer and Firefox.” —John Hrvatin, Microsoft
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“Congratulations for this excellent work. The [Dive Into Web 2.0] chapter is simply astonishing! It's one of the better—if not the best—references on Web 2.0.” —José Antonio González Seco, Parlamento de Andalucía
“The CSS chapter is compact, concise and full of useful info!” —Billy B. L. Lim, Illinois State University
“One of the best introductions to JavaScript.” —Raymond Wisman, Indiana University Southeast
“A good introduction to the DOM; doesn't trip over cross-browser incompatibilities.” —Eric Lawrence, Microsoft
“Exceptionally clear Ajax tutorial; best I've reviewed! Great solutions for the very cool type-ahead and edit-in-place Ajax features. 'Libraries to Help Eliminate Cross-Browser Compatibility Issues' is fantastic. This book and your websites will be often-visited resources (if not best practices in themselves).” —John Peterson, InSync and V.I.O.
“Great chapter [on building Flash games]. Great Dreamweaver overview.” —Jennifer Powers, University of Albany
“A solid introduction to Adobe Flex with some very cool applications.” —Matt Chotin, Adobe
“Describes the key concepts of relational database systems, and never loses itself in theoretical reflection. Gets the novice started, including essential SQL constructs.” —Roland Bouman, MySQL AB
“A solid introduction to the capabilities and flexibilities of PHP. Inspired me to tighten up my own code! Easy to follow JSF development with database, Virtual Forms and Google Maps.” —John Peterson, InSync and V.I.O. Inc.
“Excellent coverage of the most important features and techniques of developing ASP.NET 2.0 applications, with plenty of sample code.” —Peter Bromberg, VOIP, Inc.
“I wish I had this when I was learning to program.” —Joe Kromer, New Perspective & Pittsburgh Flash Users Group
“The web services chapter concludes a comprehensive education on Web 2.0. The examples go a long way to support the Web 2.0 mission of this book.” —George Semeczko, Independent Consultant

CONTENTS

Part 1: Introduction

- Chapter 1: Introduction to Computers, the Internet and the Web
Chapter 2: Web Browser Basics: Internet Explorer and Firefox
Chapter 3: Dive Into® Web 2.0

Part 2: The Ajax Client

- Chapter 4: Introduction to XHTML
Chapter 5: Cascading Style Sheets™ (CSS)
Chapter 6: JavaScript: Introduction to Scripting
Chapter 7: JavaScript: Control Statements I
Chapter 8: JavaScript: Control Statements II
Chapter 9: JavaScript: Functions
Chapter 10: JavaScript: Arrays
Chapter 11: JavaScript: Objects

Chapter 12: Document Object Model (DOM): Objects and Collections

- Chapter 13: JavaScript: Events
Chapter 14: XML and RSS
Chapter 15: Ajax-Enabled Rich Internet Applications

Part 3: Rich Internet Application Client Technologies

- Chapter 16: Adobe® Flash® CS3
Chapter 17: Adobe® Flash® CS3: Building an Interactive Game
Chapter 18: Adobe® Flex™ 2 and Rich Internet Applications
Chapter 19: Microsoft® Silverlight™ and Rich Internet Applications
Chapter 20: Adobe® Dreamweaver® CS3

Part 4: Rich Internet Application Server Technologies

- Chapter 21: Web Servers (IIS and Apache)

Chapter 22: Database: SQL, MySQL, ADO.NET 2.0 and Java DB

- Chapter 23: PHP
Chapter 24: Ruby on Rails
Chapter 25: ASP.NET 2.0 and ASP.NET Ajax
Chapter 26: JavaServer™ Faces Web Applications
Chapter 27: Ajax-Enabled JavaServer™ Faces Web Applications
Chapter 28: Web Services

Part 5: Appendices

- A XHTML Special Characters
B XHTML Colors
C JavaScript Operator Precedence Chart
D ASCII Character Set
E Number Systems
F Unicode®

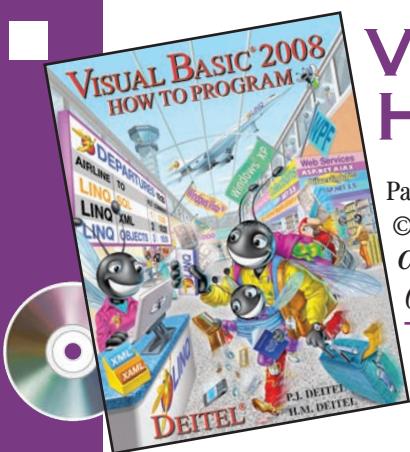
Index

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VISUAL BASIC® 2008 HOW TO PROGRAM

Paul J. Deitel and Harvey M. Deitel, both from Deitel & Associates, Inc.

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Thoroughly updated to reflect the major innovations Microsoft has incorporated in Visual Basic 2008 and .NET Framework 3.5; all discussions and sample code have been carefully audited against the newest Visual Basic language specification. The many new platform features covered in-depth in this edition include: LINQ data queries, Windows Presentation Foundation (WPF), ASP.NET Ajax and the Microsoft Ajax Library, Silverlight-based Rich Internet Application development, and creating and consuming web services with Windows Communication Foundation (WCF). New language features introduced in this edition: object anonymous types, object initializers, implicitly typed local variables and arrays, delegates, lambda expressions, and extension methods.

FEATURES

- Extensive coverage of Microsoft's new LINQ tools for querying object, relational, and XML data directly from Visual Basic.
 - Students master state-of-the-art tools that simplify building data rich applications, even without the use of SQL or other query languages.
 - Example-rich coverage of classes and objects begins in Ch. 4. Object-oriented topics covered include new discussions of object initializers, anonymous types, partial classes, delegates, Lambda expressions, and extension methods.
 - Chapter-length introduction to building Rich Internet Applications with

Microsoft's new Silverlight technologies, plus new coverage of both ASP.NET Ajax and the Microsoft Ajax Library.

- Developing advanced GUIs and graphics/multimedia rich applications with Windows Presentation Foundation (WPF).
 - Introduces Windows Communication Foundation (WCF) and demonstrates how to build and consume WCF-based web services.
 - Leverages Visual Studio 2008 Smart Tag menus and other shortcuts wherever possible.
 - Use of the Unified Modeling Language™ (UML) replaces flowcharts so students gain practice reading the type of diagrams that are used in industry.

- Optional case study on object-oriented design with UML that walks students through a system design that is clear to OOD and UML novices, while demonstrating key OOD concepts and related UML modeling techniques.

An advertisement for the Deitel Visual Basic Resource Center. The text is arranged in a diamond shape. The top half reads "Check out the Deitel Visual Basic Resource Center at". The bottom half contains the website address "www.deitel.com/visualbasic2005".

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“Rich programming examples and explanations of the concepts. An enjoyable read—many ‘light bulb’ moments throughout. I’m a big fan of the gradually developed GradeBook case study! Building the ATM application chapter-by-chapter shows the amount of work in programming a major application. Excellent bank account [file processing] examples. The Silverlight Weather application is great.”—James Keysor, Florida Institute of Tech.

“The best resource to learn object-oriented programming using VB 2008. I recommend this book to novices and advanced programmers.”—Jesús Ubaldo Quevedo-Torrero, University of Wisconsin-Parkside, CS Dept.

“A comprehensive educational experience for the aspiring Visual Basic programmer. From the basics of control flow and data structures to advanced topics like multimedia, generics, Ajax and service protocols, this book teaches you everything you need to know to build great applications the right way.”—Joe Stagner, Microsoft

“Superb job explaining inheritance. A well-designed introduction to WPF GUI. A good job explaining how XAML can be used to integrate with multimedia, graphics and the Internet.”—Amit K. Ghosh, U. of Texas, El Paso

“The TV/Video Viewer is an excellent example which will enthuse students and help them see how complex graphics effects can be created easily in WPF. A good example of the power of data binding in WPF. An excellent introduction to SQL database queries and LINQ to SQL.”—Ged Mead, Microsoft MVP (Visual Basic), DevCity.Net

“An excellent introduction to XML, LINQ to XML and related technologies.”—Helena Kotas, Microsoft

“Very good introduction to WCF and web services protocols.”—Marcelo Guerra Hahn, Microsoft

“Impressive introduction to collections and generics!”—Kim Hamilton, Microsoft

“I can’t wait to see what amazing things your readers do once they are armed with this newfound knowledge.”—Chris Lovett, Software Architect, Microsoft

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—Anand Mukundan, Polaris Software Lab Ltd.

CONTENTS

For the detailed Contents, visit

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1. Introduction to Computers, the Internet and Visual Basic
2. Dive Into® Visual Basic 2008 Express
3. Introduction to Visual Basic Programming
4. Introduction to Classes and Objects
5. Control Statements: Part 1
6. Control Statements: Part 2
7. Methods: A Deeper Look
8. Arrays
9. Introduction to LINQ and Generic Collections
10. Classes and Objects: A Deeper Look
11. Object-Oriented Programming: Inheritance
12. Object-Oriented Programming: Polymorphism
13. Exception Handling
14. Graphical User Interfaces with Windows Forms
15. GUI with Windows Presentation Foundation
16. WPF Graphics and Multimedia
17. Strings, Characters and Regular Expressions

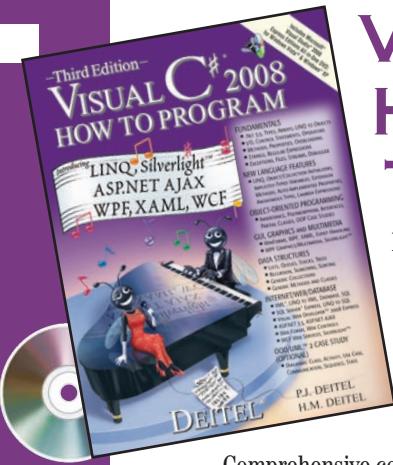
18. Files and Streams
19. XML and LINQ to XML
20. Databases and LINQ to SQL
21. ASP.NET and ASP.NET AJAX
22. Windows Communication Foundation (WCF) Web Services
23. Silverlight, Rich Internet Applications and Multimedia
24. Data Structures and Generic Collections
 - A. Operator Precedence Chart
 - B. Primitive Types
 - C. Number Systems
 - D. ATM Case Study Code
 - E. Additional Diagram Types
 - F. ASCII Character Set
 - G. Unicode®
 - H. Using the Visual Basic 2008 Debugger
- Index

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VISUAL C#® 2008 HOW TO PROGRAM, THIRD EDITION

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Thoroughly updated to reflect the major innovations Microsoft has incorporated in Visual C# 2008 and .NET 3.5; all discussions and sample code have been carefully audited against the newest Visual C# language specification. The many new platform features covered in-depth in this edition include: LINQ data queries, Windows Presentation Foundation (WPF), ASP.NET Ajax and the Microsoft Ajax Library, Silverlight-based Rich Internet Application development, and creating and consuming web services with Windows Communication Foundation (WCF). New language features introduced in this edition: automatic properties, object initializers, partial classes and methods, anonymous methods, Lambda expressions, extension methods, anonymous types, and collection initializers. Also includes extensively updated coverage of delegates.

FEATURES:

- Extensive coverage of Microsoft's new LINQ tools for querying object, relational, and XML data directly from C#: Students master state-of-the-art tools that simplify building data rich applications, even without using SQL or other query languages.
- Example-rich coverage of classes and objects begins in Chapter 4. Object-oriented topics covered include new discussions of automatic properties, object initializers, partial classes and methods, anonymous methods, Lambda expressions, extension methods, anonymous types, and collection initializers.
- Chapter-length introduction to building rich Internet applications

with Microsoft's new Silverlight technologies, plus new coverage of both ASP.NET Ajax and the Microsoft Ajax Library.

- Discusses developing advanced graphical user interfaces and graphics/multimedia rich applications with Windows Presentation Foundation (WPF).
- Introduces Windows Communication Foundation (WCF) and demonstrates how to build and consume WCF-based web services.
- Leverages Visual Studio 2008 Smart Tag menus and other shortcuts.
- Use of the Unified Modeling Language™ (UML) replaces flowcharts, so students gain practice reading the type of diagrams that are

used in industry.

- Includes optional "Automated Teller Machine (ATM)" case study on object-oriented design with UML. Walks novices through a clear system design, while demonstrating key OOD concepts and related UML modeling techniques.

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CONTENTS

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- 1. Introduction to Computers, the Internet and Visual C#®
- 2. Dive Into®Visual C# 2008 Express
- 3. Introduction to C# Applications
- 4. Introduction to Classes and Objects
- 5. Control Statements Part 1
- 6. Control Statements Part 2
- 7. Methods: A Deeper Look
- 8. Arrays
- 9. Introduction to LINQ
- 10. Classes and Objects: A Deeper Look
- 11. Object-Oriented Programming: Inheritance
- 12. Polymorphism, Interfaces & Operator Overloading
- 13. Exception Handling
- 14. Graphical User Interfaces with Windows Forms: Part 1
- 15. Graphical User Interfaces with Windows Forms: Part 2
- 16. GUI with Windows Presentation Foundation
- 17. WPF Graphics and Multimedia

18. Strings, Characters and Regular Expressions

19. Files and Streams

20. XML and LINQ to XML

21. Databases and LINQ to SQL

22. ASP.NET 3.5 and ASP.NET AJAX

23. Windows Communication Foundation (WCF) Web Services

24. Silverlight, Rich Internet Applications and Multimedia

25. Searching and Sorting

26. Data Structures

27. Generics

28. Collections

A. Operator Precedence Chart

B. Simple Types

C. Number Systems.

D. ATM Case Study Code.

E. UML 2: Additional Diagram Types. Introduction.

F. ASCII Character Set

G. Unicode® Introduction.

H. Using the Visual C# 2008 Debugger.

Index

Here's what our reviewers had to say:

“The ultimate, comprehensive book that teaches you how to program using the latest Microsoft technologies. Excellent explanations, lots of examples, all the necessary theoretical background and all the latest technologies for desktop, web and databases. The best overview of Silverlight.”—Kirill Osenkov, Microsoft

“An excellent, true objects-first book. Excellent intro to data structures and collections. Demystifies Big O notation. The generics material is a real asset.”—Gavin Osborne, Saskatchewan Inst. of Appl. Science & Tech.

“The early Introduction to Classes and Objects is brilliant. Coverage of ASP.NET 3.5 is exceptional. Includes a great introduction to ASP.NET AJAX.”—José Antonio González Seco, Parliament of Andalusia

“The exercises at the end of the Arrays chapter are quite enjoyable—finishing with the implementation of a virtual machine is really quite something. Great chapter on polymorphism.”—Eric Lippert, Microsoft

“Illustrates the best practices of C# programming. Teaches how to ‘program in the large,’ with material on object-oriented programming and software engineering principles.”—Mingsheng Hong, Cornell University

“Excellent introduction to the world of .NET for the beginning C# programming student, using the Deitels’ live-code approach and real-world examples.”—Bonnie Berent, Microsoft C# MVP

“I particularly liked the exercises on correcting errors in code. Excellent chapter on exceptions. Very good chapter on Winforms GUIs.”—Marcelo Guerra Hahn, Microsoft

“Perfect for students and professionals. Thorough intros to the debugger and LINQ.”—Vinay Ahuja, Microsoft

“The TV/video viewer will enthuse students and help them see how complex graphics effects can be created easily in WPF. A good example of data binding in WPF.”—Ged Mead, Microsoft MVP, DevCity.Net

“An excellent introduction to XML, LINQ to XML and related technologies.”—Helena Kotas, Microsoft

“Good overview of relational databases. It hits on the right LINQ to SQL idioms.”—Alex Turner, Microsoft

“Great overview of producing and consuming web services with WCF.”—Dan Crevier, Microsoft

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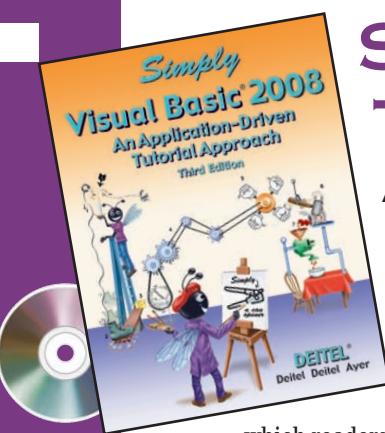
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An Application-Driven Tutorial Approach

Paul J. Deitel and Harvey M. Deitel

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CONTENTS

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5. Completing the Inventory Application: Introducing Programming
6. Enhancing the Inventory Application: Introducing Variables, Memory Concepts and Arithmetic
7. Wage Calculator Application: Introducing Algorithms, Pseudocode and Program Control
8. Dental Payment Application: Introducing CheckBoxes and Message Dialogs
9. Car Payment Calculator Application: Introducing the Do While...Loop and Do Until...Loop Repetition Statements
10. Class Average Application: Introducing the Do...Loop While and Do...Loop Until Repetition Statements
11. Interest Calculator Application: Introducing the For...Next Repetition Statement and the NumericUpDown Control.
12. Security Panel Application: Introducing the Select Case Multiple-Selection Statement

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Printing

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31. Bookstore Application: Middle Tier: Introducing Code-Behind Files, Session State and ASP.NET Ajax
32. Weather Viewer Application: Introducing Microsoft Silverlight, XML, LINQ to XML and Web Services

Appendices

- A Operator Precedence Chart
- B ASCII Character Set
- C GUI Design Guidelines
- D Visual Basic 2008 Express Windows Form Designer Tools
- D.1 Internet and Web Resources
- E Keyword Chart
- F Primitive Data Types

Glossary

Index

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Paul J. Deitel, Harvey M. Deitel, Timothy R. Hoey and Cheryl H. Yaeger © 2004, 924 pp., paper (0-13-142641-9)

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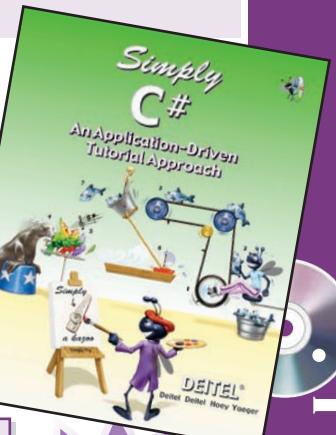
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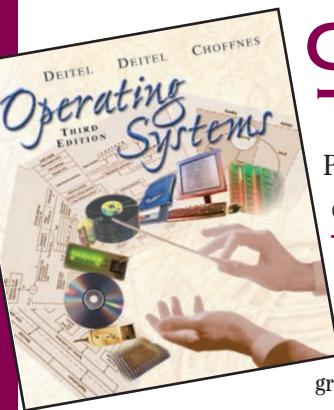
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CONTENTS

List of Illustrations

Preface

PART 1: Introduction to Hardware, Software and Operating Systems

Chapter 1: Introduction to Operating Systems

Chapter 2: Hardware and Software Concepts

PART 2: Processes and Threads

Chapter 3: Process Concepts

Chapter 4: Thread Concepts

Chapter 5: Asynchronous Concurrent Execution

Chapter 6: Concurrent Programming

Chapter 7: Deadlock and Indefinite Postponement

Chapter 8: Processor Scheduling

PART 3: Physical and Virtual Memory

Chapter 9: Real Memory Organization and Management

Chapter 10: Virtual Memory Organization

Chapter 11: Virtual Memory Management

PART 4: Secondary Storage, Files and Databases

Chapter 12: Disk Performance Optimization

Chapter 13: File and Database Systems

PART 5: Performance, Processors and Multiprocessor Management

Chapter 14: Performance and Processor Design

Chapter 15: Multiprocessor Management

PART 6: Networking and Distributed Computing

Chapter 16: Introduction to Networking

Chapter 17: Introduction to Distributed Systems

Chapter 18: Distributed Systems and Web Services

PART 7: Security

Chapter 19: Security

PART 8: Operating System Case Studies

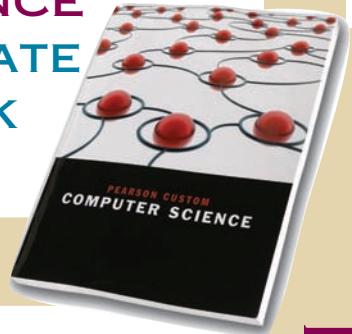
Chapter 20: Case Study: Linux 2.5

Chapter 21: Case Study: Windows XP

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Index

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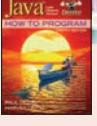
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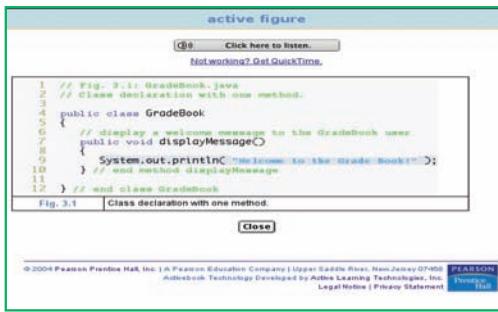
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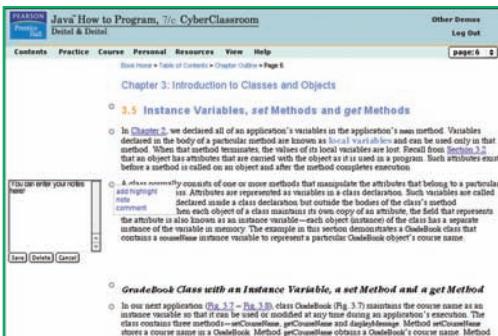
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- Book Home > Table of Contents > Chapter 2
- Chapter 2: Introduction to Java Applications
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- 2.1 Introduction
- 2.2 A First Program in Java: Printing a Line of Text
- 2.3 Modifying Our First Java Program
- 2.4 Displaying Text with `print()`
- 2.5 Another Java Application: Adding Integers
- 2.6 Memory Concepts
- 2.7 Arithmetic
- 2.8 Decision Making: Equality and Relational Operators
- 2.9 (Optional) Software Engineering Case Study: Examining the Requirements Document
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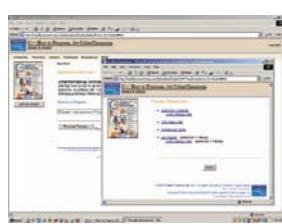


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