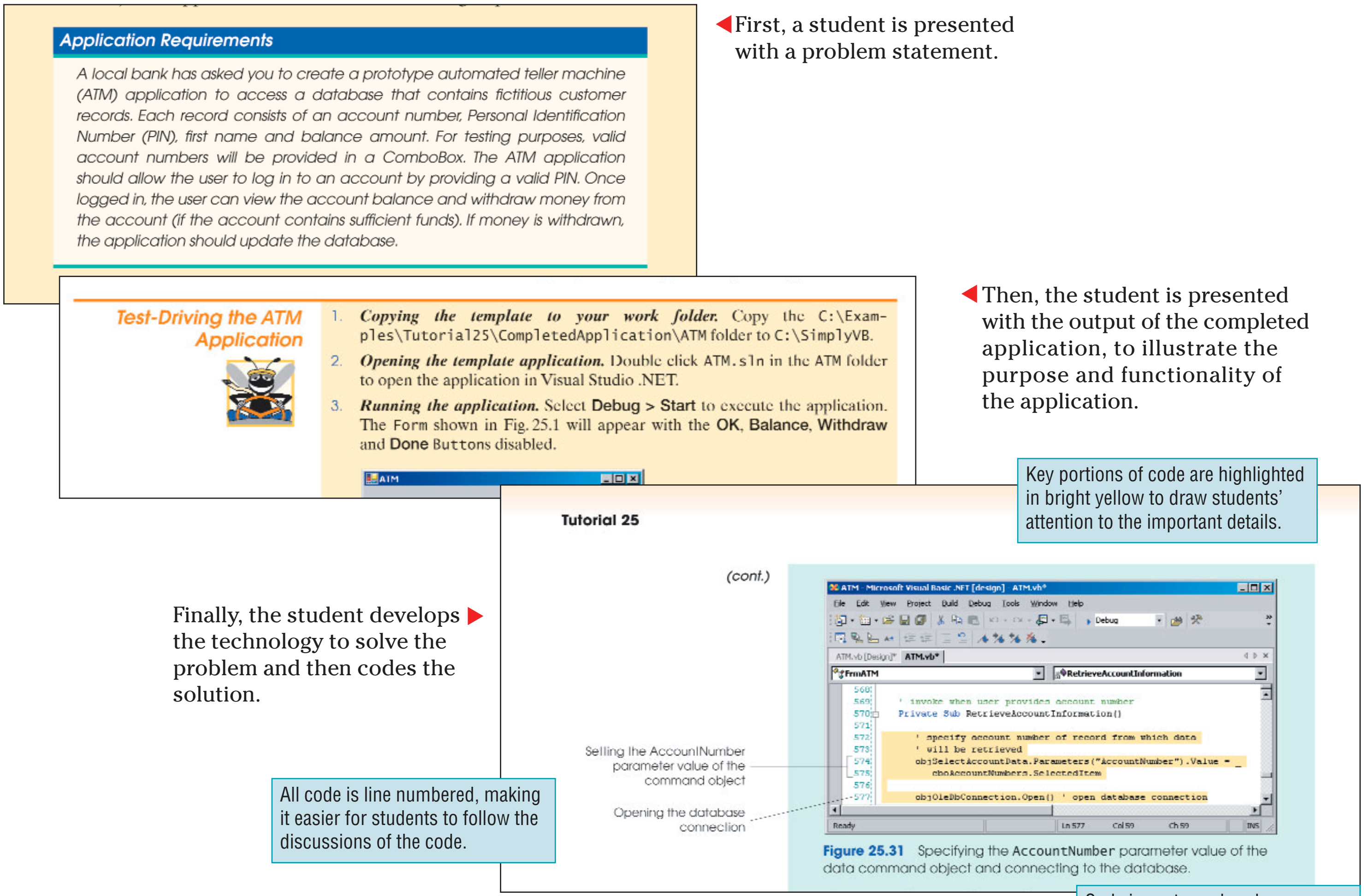
Hallmark Features of the DEITEL™ Simply Series

The Deitels are pleased to announce the new Simply Series, starting with *Simply Visual Basic® .NET An APPLICATION-DRIVEN™ Tutorial Approach*, *Simply C# An APPLICATION-DRIVEN™ Tutorial Approach* and *Simply Java™ Programming An APPLICATION-DRIVEN™ Tutorial Approach*. These books take an engaging new approach to teaching programming, with outstanding pedagogical features that help students learn.

APPLICATION-DRIVEN™ Tutorial Approach

The books in the *Simply Series* use the Deitels' new APPLICATION-DRIVEN™ tutorial approach to guide students step-by-step through practical applications. Using these tutorials, students will develop their problem-solving and programming skills in the context of solving real business and industry challenges.



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 If money is withdrawn, the application should update the database.

First, a student is presented with a problem statement.

Test-Driving the ATM Application

1. ***Copying the template to your work folder.*** Copy the `C:\Examples\Tutorial25\CompletedApplication\ATM` folder to `C:\SimplyVB`.
2. ***Opening the template application.*** Double click `ATM.sln` in the `ATM` folder to open the application in Visual Studio .NET.
3. ***Running the application.*** Select **Debug > Start** to execute the application. The `Form` shown in Fig. 25.1 will appear with the **OK**, **Balance**, **Withdraw** and **Done** `Buttons` disabled.

Then, the student is presented with the output of the completed application, to illustrate the purpose and functionality of the application.

Key portions of code are highlighted in bright yellow to draw students' attention to the important details.

Tutorial 25

(cont.)

ATM
ATM - Microsoft Visual Basic .NET [design] - ATM.vb*
File Edit View Project Build Debug Tools Window Help
Debug
ATM.vb [Design]* ATM.vb*
FrmATM
RetrieveAccountInformation
Ready
Ln 577 Col 59 Ch 59 INS

```
    ' invoke when user provides account number
    Private Sub RetrieveAccountInformation()

       ' specify account number of record from which data
       ' will be retrieved
       objSelectAccountData.Parameters("AccountNumber").Value = _
          cboAccountNumbers.SelectedItem

       objOleDbConnection.Open() ' open database connection
```

Setting the AccountNumber parameter value of the command object

Opening the database connection

Figure 25.31 Specifying the `AccountNumber` parameter value of the data command object and connecting to the database.

Finally, the student develops the technology to solve the problem and then codes the solution.

All code is line numbered, making it easier for students to follow the discussions of the code.

Code is syntax colored.

Effective, Engaging Pedagogy

The DEITEL™ signature *LIVE-CODE™ Approach* facilitates student learning by presenting programming concepts in the context of complete working programs.

Simply Series Pedagogic Features:

- Step-by-step tutorials show how to build and execute complete applications, from start to finish.
- Full-color presentation, including syntax coloring, code highlighting, callouts and extensive comments.
- Comprehensive end-of-tutorial materials, including multiple-choice questions, programming exercises and a programming challenge, all focused on real-world applications.
- Extensive end-of-section self-review exercises and answers for immediate feedback.
- Tips for improving reliability, performance and usability of your applications.
- Skills summaries and key terms sections in every tutorial.
- APPLICATION-DRIVEN™ design includes tutorials and exercises based on real-world applications.