Chapter 1

• An Introduction to Computers and Visual Basic.NET

Outline and Objectives

• Introduction to Computers
  • Skipping most of this in class, some covered previously
• Using Windows
  • Files and Folders
  • Skipping most of this in class
• An Introduction to Visual Basic.NET
• Biographical History of Computing
Problem Solving

• Developing the solution to a problem
• Algorithm – a step by step series of instructions to solve a problem

Types of Problems in this Text

• Business computations
• Managing records
• Managing lists
• And more

• We’ll have some assignments with a little more of an entertainment flavor as well
VB.NET

- BASIC developed at Dartmouth in the early 1960s
- Visual Basic created by Microsoft in 1991
- VB.NET similar to Visual Basic, but more powerful

Skipping in Class

- Internet and the WWW
- Using Windows – PC Literacy Topics
  - Using the mouse; double-clicking, hovering, dragging, etc.
  - Moving windows
  - Navigating the C: drive for files
  - Opening, closing files, copying files
  - Using WinZip
- See text for more information
Introduction to Visual Basic .NET:

- Language used to create Windows application.
- Provides a Graphical User Interface or GUI.
- The sequence of instructions executed in the program is controlled by events.

Sample Input Screen
How to Develop a VB.NET Application

- Design the Interface for the user.
- Determine which events the controls on the window should recognize.
- Write the event procedures for those events.

Different Versions of Visual Basic

- Version 1.0 – 1991
- Version 2.0 – 1992
- Version 3.0 – 1993
- Version 4.0 – 1995
- Version 5.0 – 1997
- Version 6.0 – 1998
- VB.NET – 2002 – NOT BACKWARD COMPATIBLE WITH EARLIER VERSIONS OF VISUAL BASIC
1.5 Biographical History of Computing

1800s

- **George Boole** – devised Boolean algebra
- **Charles Babbage** – created "analytical engine"
- **Augusta Ada Byron** – first computer programmer
- **Herman Hollerith** – founder of company that would become IBM
1930s

- **Alan Turing** – deciphered German code in WWII; design of computer systems, theory, software, determined what is possible for computers to compute
- **John V. Atanasoff** – inventor of first electronic digital special purpose computer

1940s

- **Howard Aiken** – built large scale digital computer, Mark I
- **Grace M. Hopper** – originated term "debugging"; pioneered development and use of COBOL
- **John Mauchley** and **J. Presper Eckert** – built first large scale general purpose computer, ENIAC
1940s continued

- John von Neumann – developed stored program concept
- Maurice V. Wilkes – built EDSAC, first computer to use stored program concept
- John Bardeen, Walter Brattain, and William Shockley – developed transistor that replaced vacuum tubes

1950s

- John Backus – created Fortran; early user of interpreters and compilers
- Reynold B. Johnson – invented the disk drive
- Donald L. Shell – developed efficient sorting algorithm
1960s

- **John G. Kemeny** and **Thomas E. Kurtz** – invented BASIC
- **Corrado Bohm** and **Guiseppe Jacopini** – proved that any program can be written with only 3 structures: sequence, decision, and loops
- **Edsger W. Dijkstra** – stimulated move to structured programming by declaring "GOTO" harmful

1960s continued

- **Harlan B. Mills** – advocated use of structured programming
- **Donald E. Knuth** – wrote definitive work on algorithms
- **Ted Hoff, Stan Mazer, Robert Noyce, and Frederico Faggin** – developed first microprocessor
1960s continued

- Douglas Engelbart – invented computer mouse

1970s

- Ted Codd - software architect; laid the groundwork for relational databases
- Paul Allen and Bill Gates - cofounders of Microsoft Corporation
- Stephen Wozniak and Stephen Jobs - cofounders of Apple Computer Inc.
- Dan Bricklin and Dan Fylstra - wrote VisiCalc, the first electronic spreadsheet program
1970s continued

• **Dennis Ritchie** - creator of the C programming language.
• **Ken Thompson** - created the Unix operating system
• **Alan Kay** – developer of Smalltalk, a pure object-oriented language
• **Don Chamberlain** - created a database programming language, later known as SQL,

1980s

• **Phillip “Don” Estridge** - at IBM directly responsible for the success of the personal computer.
• **Mitchell D. Kapor** - cofounder of Lotus Corporation
• **Tom Button** - group product manager for applications programmability at Microsoft; headed the team that developed QuickBasic, QBasic, and Visual Basic.
1980s continued

• **Alan Cooper** - considered the father of Visual Basic.
• **Charles Simonyi** - the “father of Word.”
• **Bjarne Stroustrup** - creator of the C++ programming language.
• **Richard M. Stallman** - founded Free Software Foundation

1990s

• **Marc Andreessen** - inventor of the Web browser.
• **James Gosling** – creator of Java.
• **Linus Torvalds** - developed the popular Linux operating system.
1990s continued

- Brain Behlendorf, Rob McCool, and Roy Fielding - developers of the Apache HTTP server, an open-source Web server that can scale up quickly to handle high volumes of traffic.

2000 - today

- ? ... You?