Information Technology, the Internet, and You

Chapter 1
Competencies (Page 1 of 3)

• Explain the parts of an information system: people, procedures, software, hardware, data, and connectivity.
• Distinguish between system software and application software.
• Discuss the three kinds of system software programs.
• Define and compare general purpose, specialized, and mobile applications.
Competencies (Page 2 of 3)

• Identify the four types of computers and the four types of microcomputers.
• Describe the different types of computer hardware, including the system unit, input, output, storage, and communication devices.
• Define data and describe document, worksheet, database, and presentation files.
Competencies (Page 3 of 3)

• Explain computer connectivity, the wireless revolution, the Internet, and cloud computing.
Introduction

• Computer competency refers to acquiring computer-related skills.
• Information systems are involved in many of the things we encounter each day.
• Microcomputers are common in all areas of life.
• New forms of learning have developed providing numerous alternatives for people to become educated without physically attending classes
• The Web provides new avenues of communication for people to purchase goods, communication and share similar interests.
Parts of an Information System

- People
- Procedures
- Software

- Hardware
- Data
- Connectivity
People

• Most important part of any system
• Contact is
  – Direct
  – Indirect
• Computer uses
  – Entertainment
  – Business
  – Medicine
  – Education
System Software

• Enables application software to interact with the computer hardware
• Background software helps manage resources
• Collection of programs
  – Operating Systems
  – Utilities
  – Device Drivers
• Operating System
  – Coordinates computer resources
  – Provides the user interface
  – Runs applications
Hardware – Types of Computers

- Supercomputers
- Mainframe computers
- Midrange computers
- Microcomputers
Microcomputer Types

• Desktop
• Notebook or laptop
• Tablet PC
• Handheld
Connectivity, the Wireless Revolution, the Internet, and Cloud Computing

• Connectivity
  – Sharing of information
  – Wireless communication has widespread use

• Computer networks
  – Connected communication system of computers
  – Largest network is the Internet

• Cloud Computing
  – Uses the Internet and the Web to shift many computer activities from a user’s computer to computers on the Internet
Careers in IT

- For a complete listing of careers, visit http://www.computing2014.com/ keyword: careers

<table>
<thead>
<tr>
<th>Career</th>
<th>Description</th>
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<tbody>
<tr>
<td>Webmaster</td>
<td>Develops and maintains websites and web resources. See page 51</td>
</tr>
<tr>
<td>Software Engineer</td>
<td>Analyzes users’ needs and creates application software. See page 82</td>
</tr>
<tr>
<td>Computer Support Specialist</td>
<td>Provides technical support to customers and other users. See page 112</td>
</tr>
<tr>
<td>Computer Technician</td>
<td>Repairs and install computer components and systems. See page 141</td>
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<tr>
<td>Technical Writer</td>
<td>Prepares instruction manuals, technical reports, and other scientific or technical documents. See page 174</td>
</tr>
<tr>
<td>Network Administrator</td>
<td>Creates and maintains computer networks. See page 229</td>
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A Look to the Future

• The Internet and the Web
• Powerful Software
• Powerful Hardware
• Security and Privacy
• Organizations
• Changing Times
Open-Ended Questions (Page 1 of 2)

• Explain the five parts of an information system. What part do people play in this system?

• What is system software? What kinds of programs are included in system software?

• Define and compare general-purpose, specialized, and mobile application software. Describe some different types of general-purpose applications. Describe some types of specialized applications.
Open-Ended Questions (Page 2 of 2)

• Describe the different types of computers. What is the most common type? What are the types of microcomputers?

• What is connectivity? What are wireless devices and the wireless revolution? What is a computer network? What are the Internet and the Web? What is cloud computing?