

Introduction to Information Technology

Course Administration & Requirements

- Exams and Assessment
 - Basically 2 exams method Mid & Final
 - 10 % Quiz
 - 10 % Assignments
 - 10 % Final Project
 - 30 % Mid
 - 40 % Final
 - (so you must start getting worried about it !!!)

Lecture Notes

- Available from Photostat shop before lectures or preferably one day before the start of new week
- Usually the lecture material will cover the topics of one week
- Lecture Notes also now available online on the given website address.
- Lecture Notes will not be in detail format rather these will contain topics of discussion and important announcements regarding assessments.
- Most Importantly Lecture Notes are just a supporting material and students must not forget to read books for detail and complete understanding (In case of Management as a subject you need to do extensive reading on topics under discussion & look for majority of web sites for practical know how

Course Administration & Requirements

- Written assignments (Small Tasks) (details in coming lectures)
 - Idea is to initiate research oriented writing not “cut-copy-paste”
- Attendance, Presentations, Quiz & Class Discussion & Participation (as a regular activity)
- Volunteer presentations (you must not be that familiar with this kind of stuff but you need to respond to it quickly!)

How to get more marks?

- Requirements
 - Overall Class Attitude
 - Things to Avoid (Referencing, Cut-Copy-Paste Culture, Carelessness, leg-pulling)
 - Things to do (Innovation, Confidence, Work Attitude)
 - Sense of Maturity and continuous learning

Text and References

- **Introduction to Computers**

By Peter Norton 7th Edition

Slides and handouts

SCOPE OF YOUR COURSE

- ✓ To Learn Computer's Basic Knowledge
- ✓ To Learn Computer's hardware knowledge
- ✓ To Learn How Computer can be use in Office Environment.
- ✓ To Learn Internet basic know how.

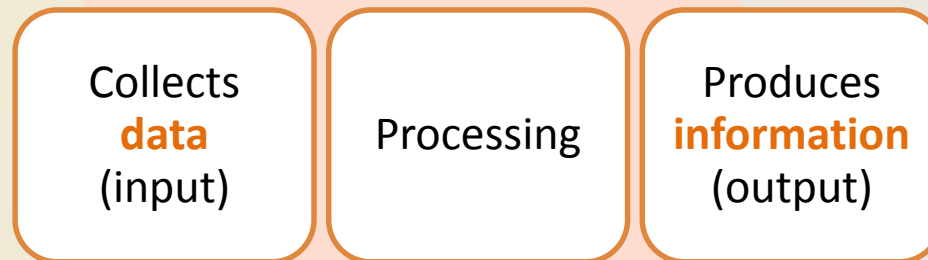
A World of Computers

- Computers are everywhere



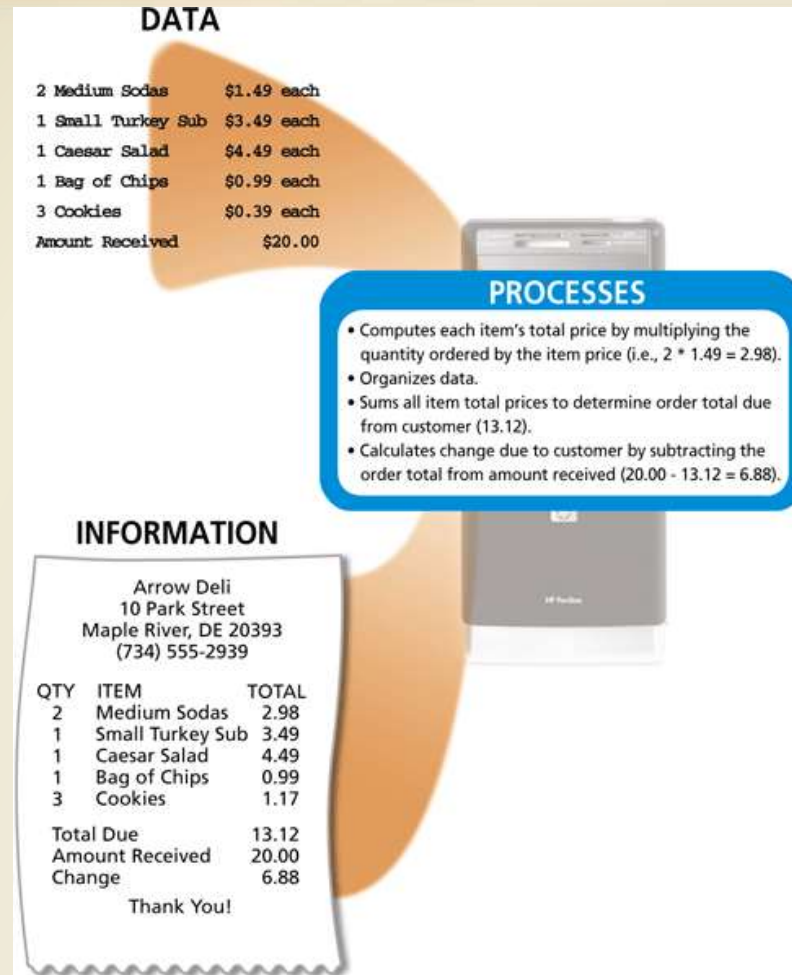
What Is a Computer?

- A **computer** is an electronic device, operating under the control of instructions stored in its own memory



Information Processing Cycle

What Is a Computer?



The Components of a Computer

- A computer contains many electric, electronic, and mechanical components known as **hardware**

Input Device

- Allows you to enter data and instructions into a computer

Output Device

- Hardware component that conveys information to one or more people

System Unit

- Case that contains the electronic components of the computer that are used to process data

Storage Device

- Records (writes) and/or retrieves (reads) items to and from storage media

Communications Device

- Enables a computer to send and receive data, instructions, and information to and from one or more computers or mobile devices

The Components of a Computer



Advantages and Disadvantages of Using Computers

Advantages of Using Computers

Speed

Reliability

Consistency

Storage

Communications

Disadvantages of Using Computers

Health Risks

Violation of Privacy

Public Safety

Impact on Labor Force

Impact on Environment

Advantages and Disadvantages of Using Computers

- **Green computing** involves reducing the electricity consumed and environmental waste generated when using a computer
- Strategies include:
 - Recycling
 - Regulating manufacturing processes
 - Extending the life of computers
 - Immediately donating or properly disposing of replaced computers

Networks and the Internet

- A **network** is a collection of computers and devices connected together, often wirelessly, via communications devices and transmission media



Networks and the Internet

- The **Internet** is a worldwide collection of networks that connects millions of businesses, government agencies, educational institutions, and individuals



Networks and the Internet

- People use the Internet for a variety of reasons:



Communicate



**Research and
Access Information**



Shop



Bank and Invest



Online Trading



Entertainment



Download Videos



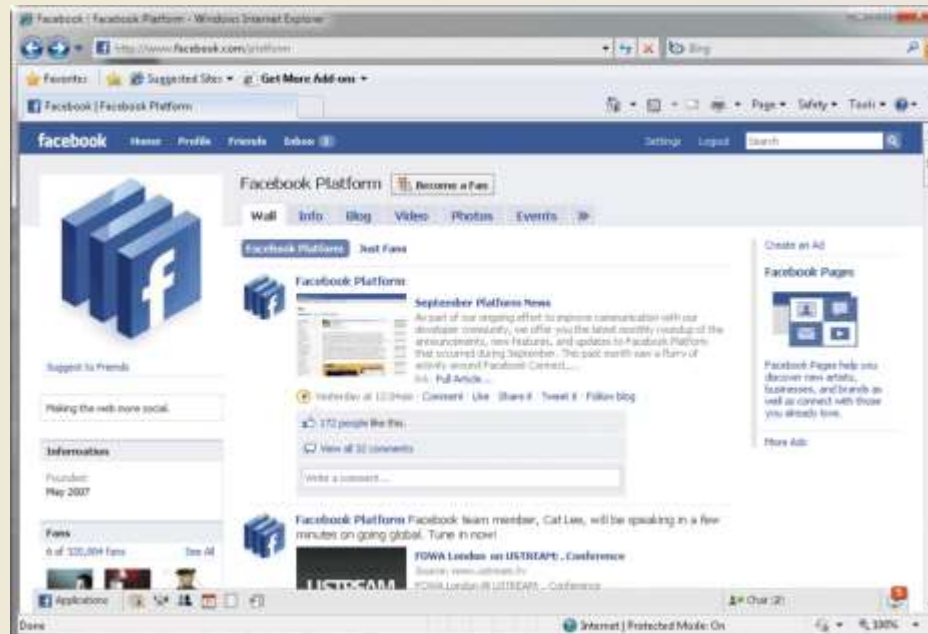
Share Information



Web Application

Networks and the Internet

- A **social networking Web site** encourages members to share their interests, ideas, stories, photos, music, and videos with other registered users



Computer Software

- **Software**, also called a **program**, tells the computer what tasks to perform and how to perform them



System Software

- Operating system
- Utility program



Application Software

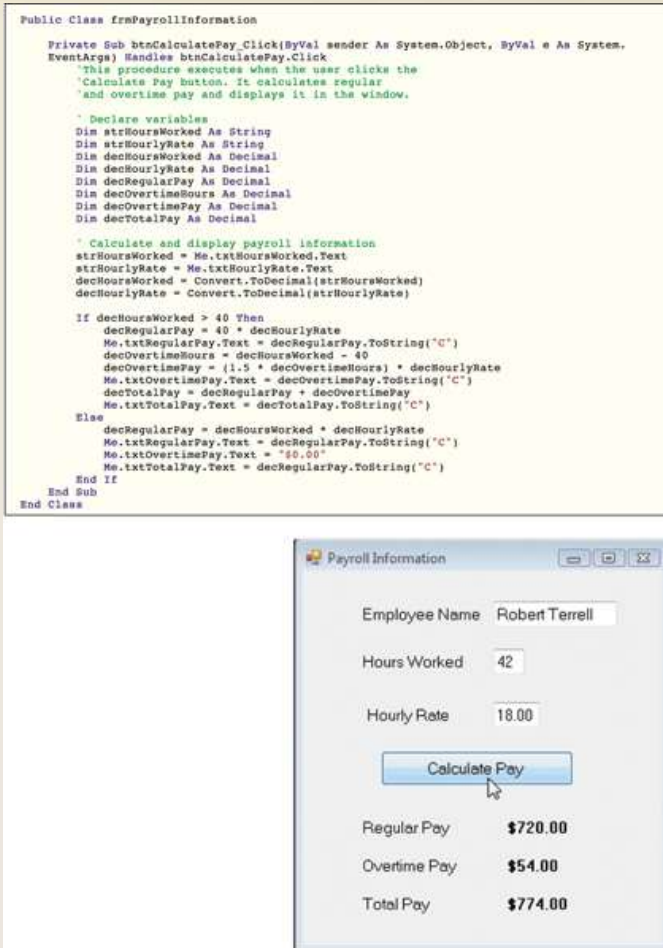
Computer Software

- **Installing** is the process of setting up software to work with the computer, printer, and other hardware

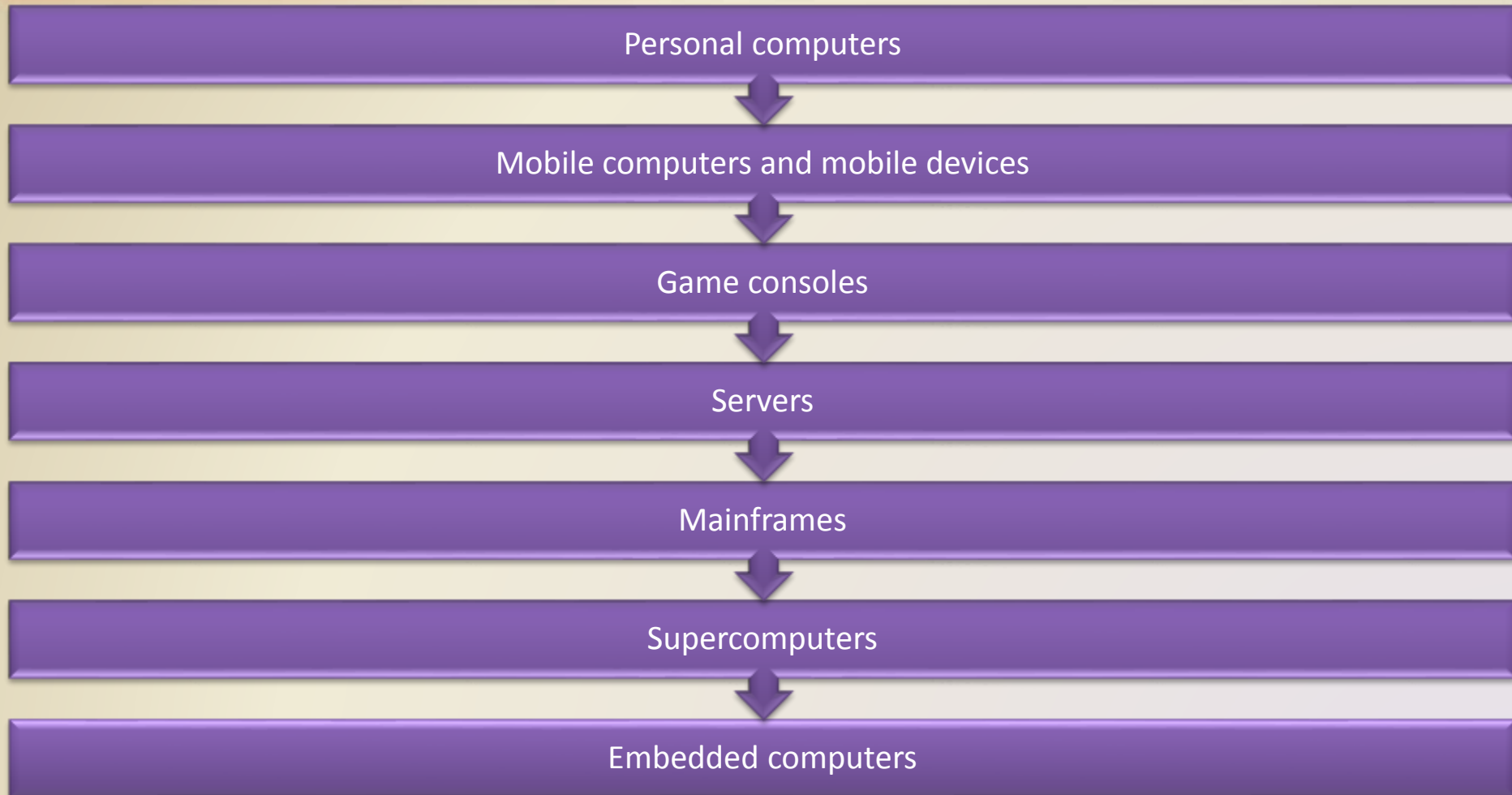


Computer Software

- A programmer develops software or writes the instructions that direct the computer to process data into information



Categories of Computers



Personal Computers

- A **personal computer** can perform all of its input, processing, output, and storage activities by itself
- Two popular architectures are the PC and the Apple
 - **Desktop computer**



Mobile Computers and Mobile Devices

Mobile Computer

Personal computer you can carry from place to place

Examples include **notebook computers**, **laptop computers**, netbooks, ultra-thins, and **Tablet PCs**

Mobile Device

Computing device small enough to hold in your hand

Examples include **smart phones** and **PDA**s, **e-book readers**, **handheld computers**, **portable media players**, and **digital cameras**

Mobile Computers and Mobile Devices



Notebook computer



Tablet PC



Smart phones and PDAs



E-book reader

Mobile Computers and Mobile Devices



Handheld computer



Portable media player



Digital camera

Game Consoles

- A **game console** is a mobile computing device designed for single-player or multiplayer video games



Servers

- A **server** controls access to the hardware, software, and other resources on a network
 - Provides a centralized storage area for programs, data, and information



Mainframes

- A **mainframe** is a large, expensive, powerful computer that can handle hundreds or thousands of connected users simultaneously



Supercomputers

- A **supercomputer** is the fastest, most powerful computer
 - Fastest supercomputers are capable of processing more than one quadrillion instructions in a single second



Embedded Computers

- An **embedded computer** is a special-purpose computer that functions as a component in a larger product

Consumer Electronics

- Mobile and digital telephones
- Digital televisions
- Cameras
- Video recorders
- DVD players and recorders
- Answering machines

Home Automation Devices

- Thermostats
- Sprinkling systems
- Security monitoring systems
- Appliances
- Lights

Automobiles

- Antilock brakes
- Engine control modules
- Airbag controller
- Cruise control

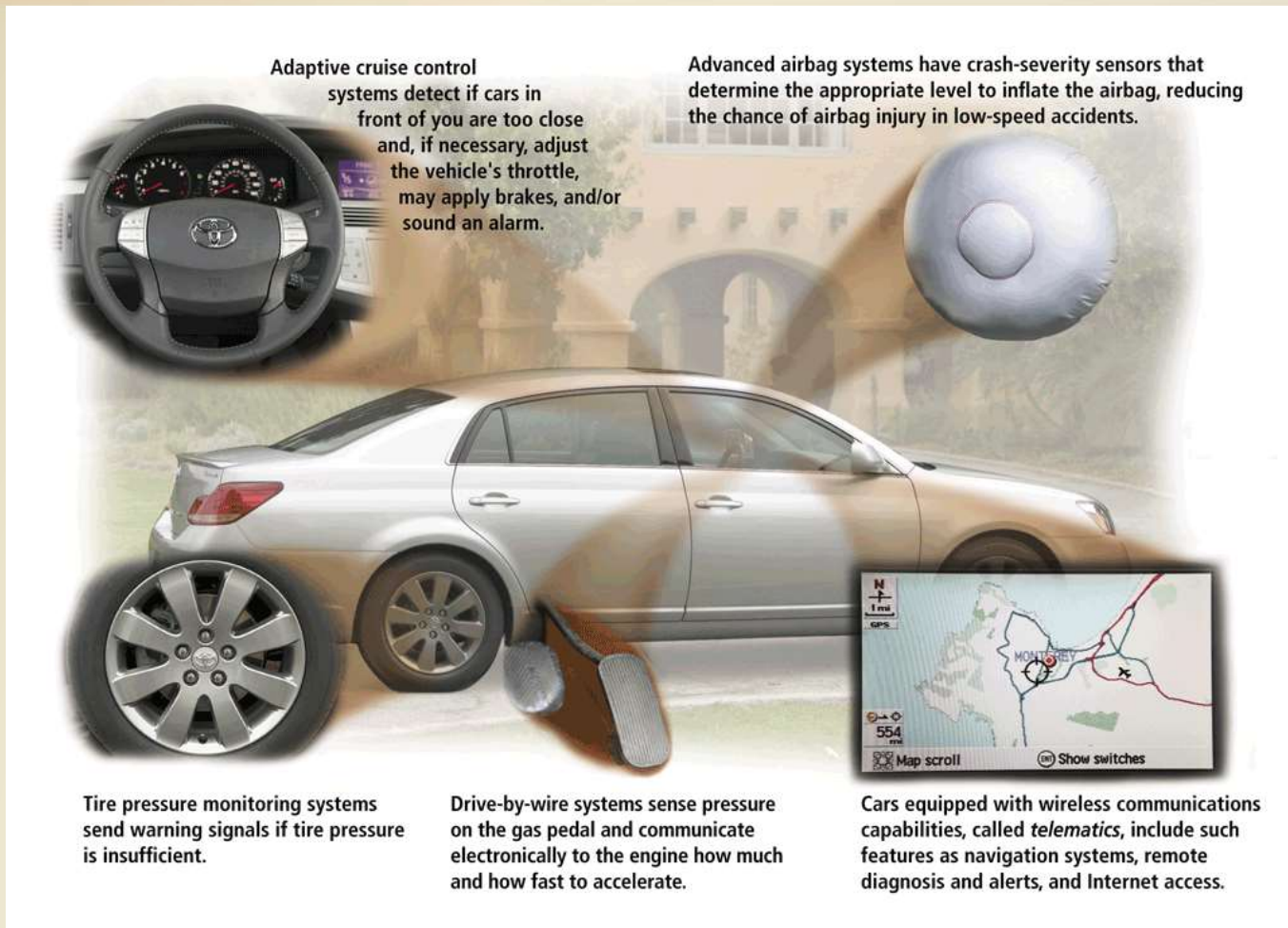
Process Controllers and Robotics

- Remote monitoring systems
- Power monitors
- Machine controllers
- Medical devices

Computer Devices and Office Machines

- Keyboards
- Printers
- Faxes
- Copiers

Embedded Computers



Elements of an Information System

Hardware

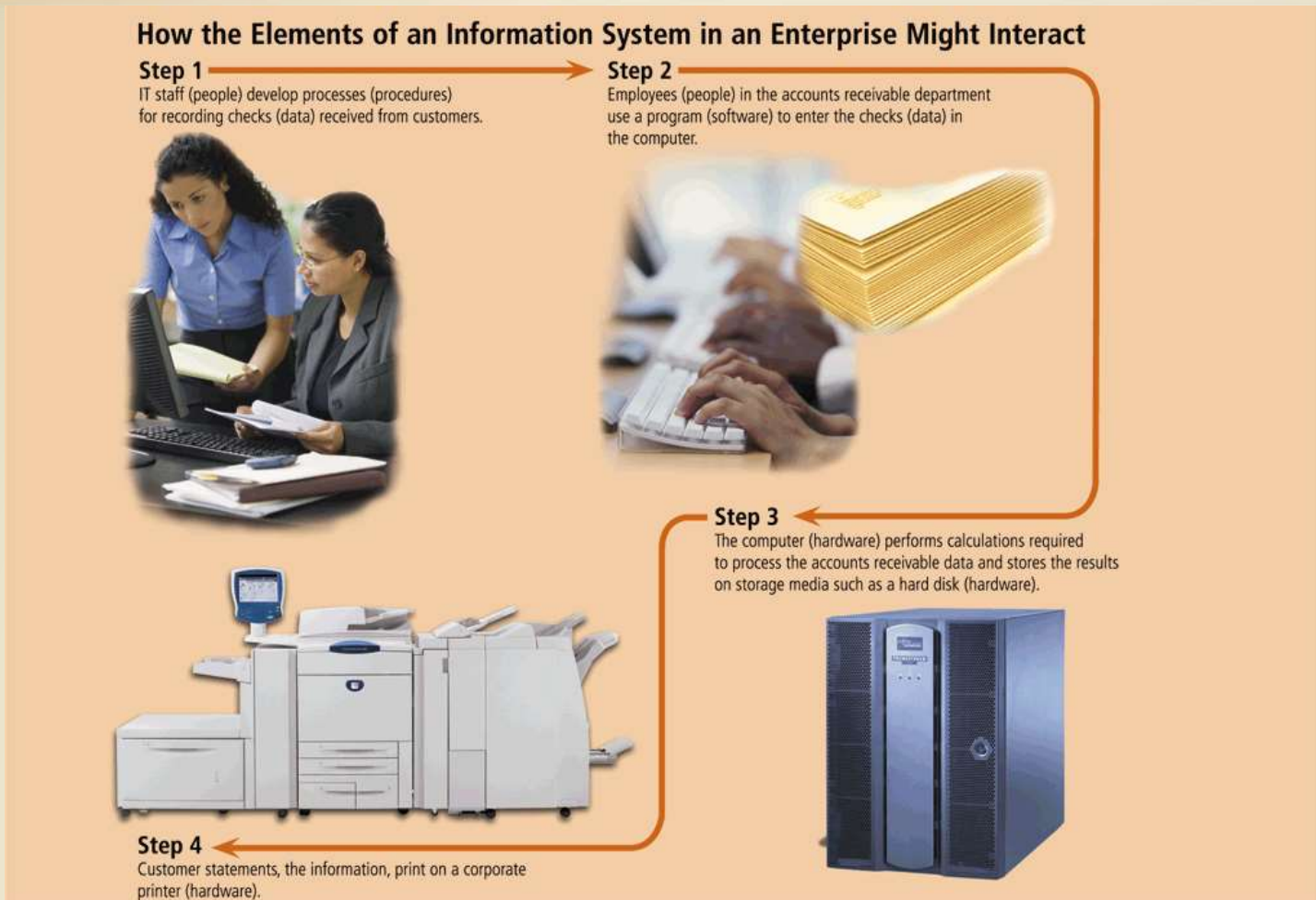
Software

Data

People

Procedures

Elements of an Information System



Examples of Computer Usage



Home User

- Personal financial management
- Web access
- Communications
- Entertainment



Small Office/Home Office User

- Look up information
- Send and receive e-mail messages
- Make telephone calls



Mobile User

- Connect to other computers on a network or the Internet
- Transfer information
- Play video games
- Listen to music
- Watch movies

Examples of Computer Usage



Power User

- Work with multimedia
- Use industry-specific software



Enterprise User

- Communicate among employees
- Process high volumes of transactions
- Blog

Computer Applications in Society



Education



Finance



Government



Health Care

Computer Applications in Society



Science



Publishing



Travel



Manufacturing

Summary

Basic computer
concepts

Components of a
computer

Networks, the Internet,
and computer software

Many different
categories of
computers, computer
users, and computer
applications in society

Chapter One

Introduction to Computers

Discovering Computers 2012

**Your Interactive Guide
to the Digital World**

Chapter 1 Complete

