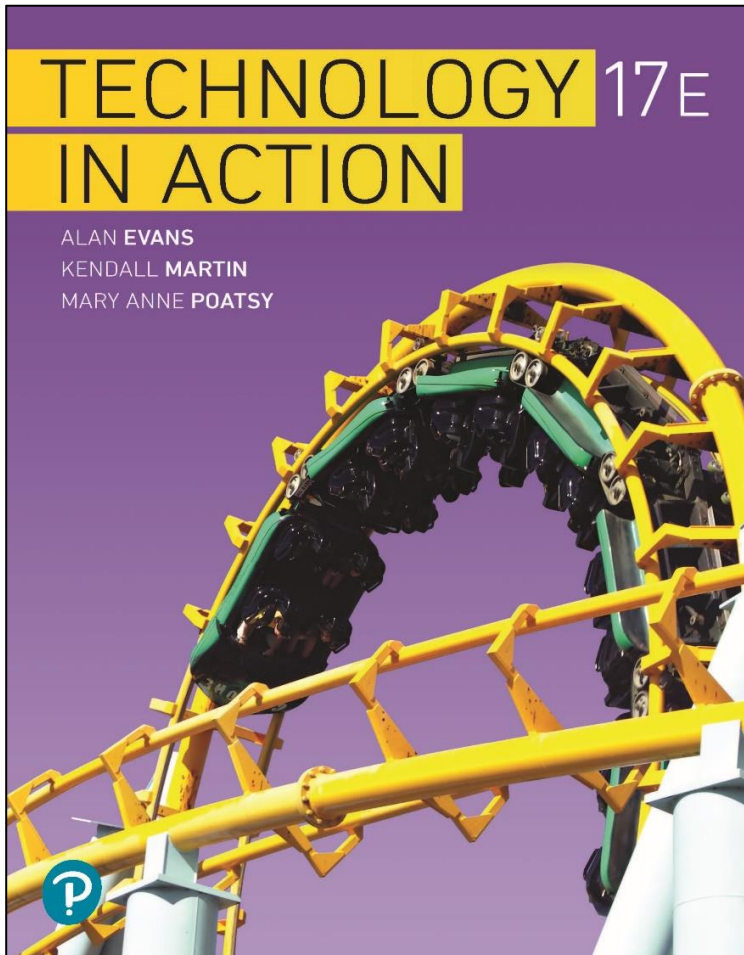


Technology in Action

Seventeenth Edition



Chapter 4

Application Software:
Programs That Let You
Work and Play

Learning Objectives (1 of 3)

- 4.1 Compare application software and system software.
- 4.2 Explain the differences between commercial software and open source software and describe models for software distribution.
- 4.3 Explain the different options for purchasing software.
- 4.4 Describe how to install and uninstall software.
- 4.5 Explain the considerations around the decision to upgrade your software.

Learning Objectives (2 of 3)

4.6 Explain how software licenses function.

4.7 Categorize the types of application software used to enhance productivity and describe their uses and features.

4.8 Summarize the types of software that large and small businesses use.

4.9 Describe the uses and features of digital multimedia software.

Learning Objectives (3 of 3)

4.10 Describe the uses and features of digital audio software.

4.11 Describe the features of app creation software.

4.12 Categorize educational and reference software and explain their features.

Software Basics

Application vs System Software (Objective 4.1)

- Software—set of instructions that tells a computer what to do
- Two basic types of software
 - Application software
 - System software

Software Basics

Distributing Software (Objective 4.2)

- Ways software is created
 - Proprietary (commercial)
 - Open source (free)
- Ways software is distributed
 - Local installation
 - Software as a Service (SaaS)
 - Subscription

Managing Your Software

Purchasing Software (Objective 4.3)

- Downloaded from the Internet
- Student discounts
- Freeware
- Beta version



Managing Your Software

Installing and Uninstalling Software (Objective 4.4)

- System requirements
- Restore point
- Full installation
- Custom installation
- Recovering from a computer crash
- Uninstalling software
- Recovery drive

Managing Your Software

Upgrading Software (Objective 4.5)

- Upgrades/updates not needed for subscriptions or SaaS
- Automatic updates
- Is it cost effective?
- Between upgrades are software updates or patches

Managing Your Software

Software Licenses (Objective 4.6)

- End User License Agreement (EULA)
- States the following:
 - Ownership
 - Copies allowed
 - # of installations allowed
 - Warranties
- Copyleft



Productivity and Business Software (1 of 9)

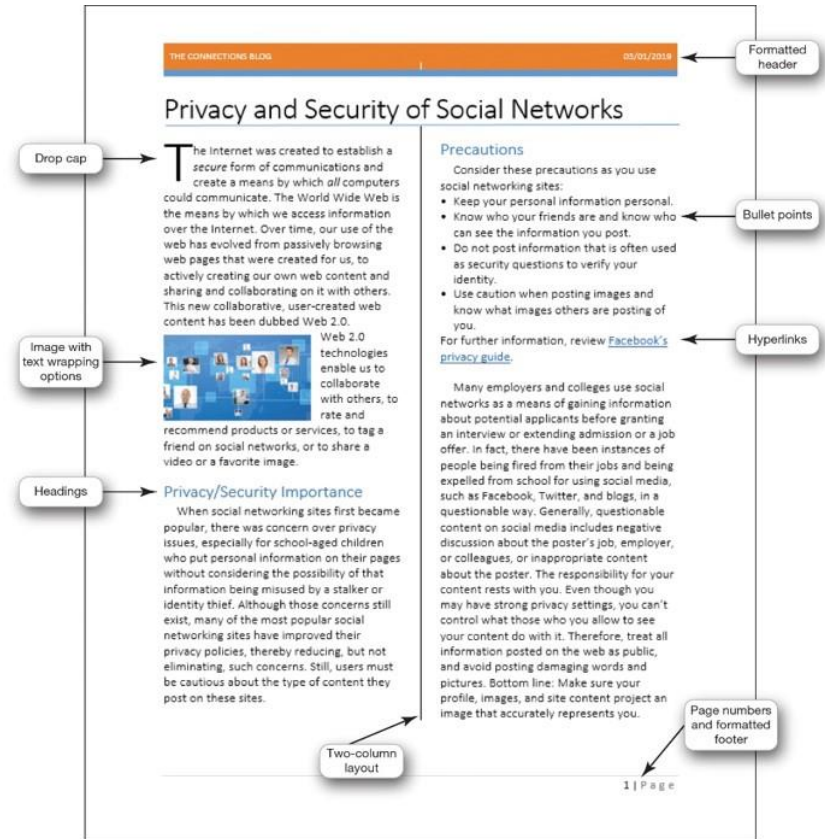
Productivity Software (Objective 4.7)

- Productivity software—perform various tasks required at home, school, and business
 - Proprietary—Microsoft Office and Apple iWork
 - Open source—LibreOffice
 - Web-based—Office 365 Online, Google Suite, Zoho, and ThinkFree

Productivity and Business Software (2 of 9)

Productivity Software (Objective 4.7)

- Word processing—create and edit documents
 - Research papers
 - Class notes
 - Résumés
- Program examples
 - Word
 - Writer



Productivity and Business Software (3 of 9)

Productivity Software (Objective 4.7)

- Spreadsheet—performs calculations and numerical analyses
- Data types
 - Text
 - Values and dates
 - Formulas
 - Functions
- Examples
 - Excel
 - Calc

Cell

Financial aid amount reduced

Labels

Values

Function: `=SUM(B10:B16)`

Formula: `=D8-D17`

"Membership" row inserted

Results of recalculated formulas

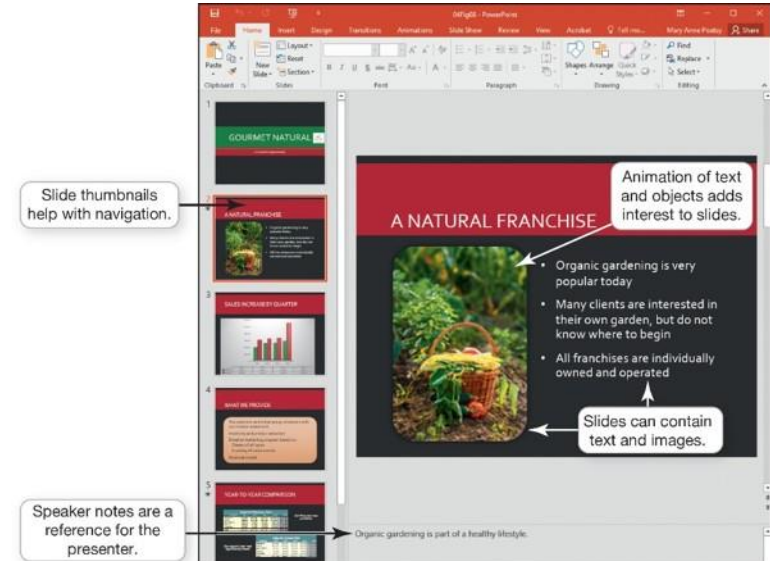
| | Sept | Oct | Nov |
|--------------------------------|-----------------|-----------------|-----------------|
| Income | | | |
| Work income | \$ 2,000 | \$ 2,100 | \$ 2,125 |
| Scholarship | 2,500 | 0 | 0 |
| Financial aid | 500 | 0 | 0 |
| Other income | 475 | 430 | 500 |
| Total Income | \$ 6,475 | \$ 2,530 | \$ 2,625 |
| Expenses | | | |
| Books | \$ 750 | \$ 50 | \$ 25 |
| Clothing | 200 | 100 | 150 |
| College tuition | 1,875 | 0 | 0 |
| Credit card/other loans | 750 | 1,000 | 950 |
| Groceries & other food | 400 | 525 | 410 |
| Cable TV, Internet, Cell phone | 125 | 150 | 145 |
| Travel & recreation | 250 | 150 | 300 |
| Total Expenses | \$ 4,350 | \$ 1,975 | \$ 1,980 |
| Net Income | \$ 2,125 | \$ 555 | \$ 645 |

| | Sept | Oct | Nov |
|--------------------------------|-----------------|-----------------|-----------------|
| Income | | | |
| Work income | \$ 2,000 | \$ 2,100 | \$ 2,125 |
| Scholarship | 2,500 | 0 | 0 |
| Financial aid | 500 | 0 | 0 |
| Other income | 475 | 430 | 500 |
| Total Income | \$ 5,475 | \$ 2,530 | \$ 2,625 |
| Expenses | | | |
| Books | \$ 750 | \$ 50 | \$ 25 |
| Clothing | 200 | 100 | 150 |
| College tuition | 1,875 | 0 | 0 |
| Credit card/other loans | 750 | 1,000 | 950 |
| Groceries & other food | 400 | 525 | 410 |
| Cable TV, Internet, Cell phone | 125 | 150 | 145 |
| Travel & recreation | 250 | 150 | 300 |
| Total Expenses | \$ 4,425 | \$ 2,050 | \$ 2,055 |
| Net Income | \$ 1,050 | \$ 480 | \$ 570 |

Productivity and Business Software (4 of 9)

Productivity Software (Objective 4.7)

- Presentation software
 - Tips for designing good presentations
 - Use images
 - Be careful with color
 - Use bullets for key points
 - Consider font size and style
 - Minimize animation and background audio



Productivity and Business Software (5 of 9)

Productivity Software (Objective 4.7)

- Database software—stores and organizes data
 - Organization
 - Fields
 - Records
 - Tables

The diagram shows three callout boxes with arrows pointing to a table below:

- Field:** A data category (points to the 'FirstName' column)
- Record:** A group of related fields (points to the second row of data)
- Table:** A group of related records (points to the entire table)

| ID | FirstName | LastName | Company | Street | City | State | ZipCode |
|----|-----------|----------|---------------------|----------------------|-------------|-------|---------|
| 1 | Susan | Scantosi | eWidget Plus | 363 Rogue Street | St. Louis | MO | 63136 |
| 2 | Thomas | Mazeman | BooksRUs | 2165 Piscotti Avenue | Springfield | IL | 62702 |
| 3 | Douglas | Seaver | Printing Solutions | 7700 First Avenue | Topeka | KS | 66603 |
| 4 | Amir | Raviv | TechStands | 1436 Riverfront Road | St. Louis | MO | 63136 |
| 5 | Franklin | Scott | WorksSuite | 8789 Ploughman Ave | Tulsa | OK | 74101 |
| 6 | Ronald | Komeika | Creekside Financial | 1264 Pond Hill Road | Toledo | OH | 43601 |
| 7 | Barbara | Mitchell | Market Tenders | 9823 Bridge Street | La Porte | IN | 46350 |

Productivity and Business Software (6 of 9)

Productivity Software (Objective 4.7)

- Note-taking software
 - OneNote
 - Evernote

Evernote (evernote.com)

- Web-based
- Notes can be shared for easy collaboration
- Syncs notes between all devices

AudioNote (luminantsoftware.com)

- Synchronized note taking and audio recording
- Allows text or handwritten notes
- Highlights notes during playback

Simplenote (simplenote.com)

- Web-based, open source
- Notes organized by tags
- Mobile apps available

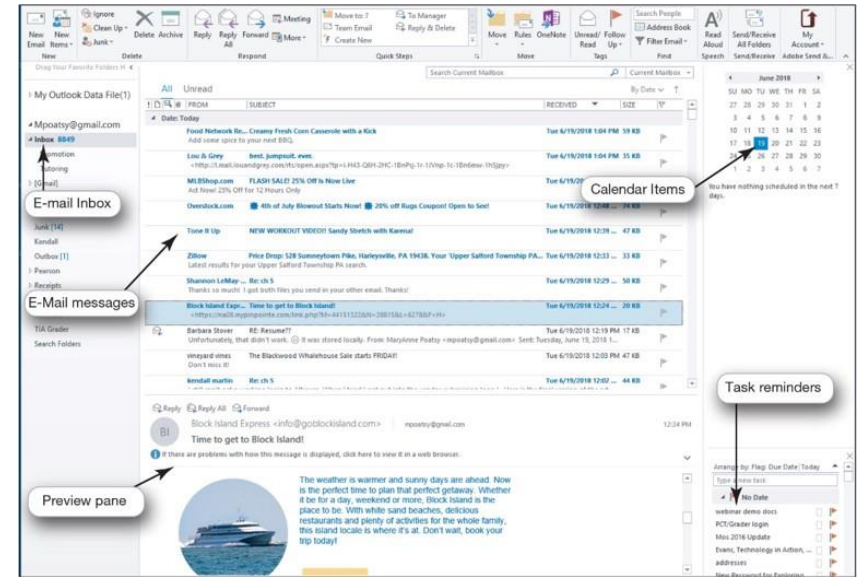
Notability (gingerlabs.com)

- PDF annotations
- Advanced word processing
- Linked audio recordings to notes
- Auto-sync notes between devices

Productivity and Business Software (7 of 9)

Productivity Software (Objective 4.7)

- Personal information manager software
 - Manages e-mail, contacts, calendars, and tasks
 - Outlook
 - Web-based PIMs
 - Yahoo!
 - Google
 - Other options
 - Toodledo
 - OmniFocus



Productivity and Business Software (8 of 9)

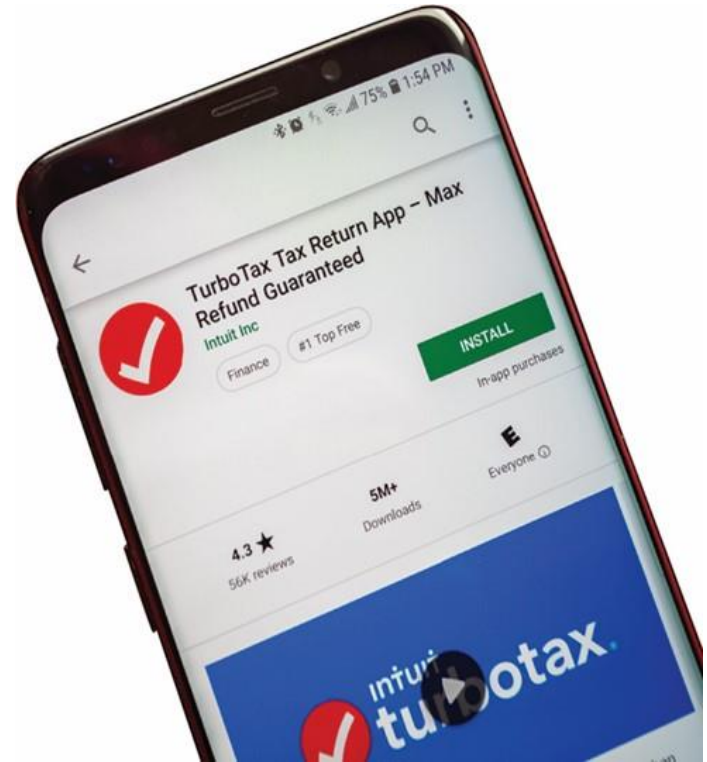
Productivity Software (Objective 4.7)

- Project and collaborative software
 - Software used when working remotely with team members
 - Microsoft Teams
 - Zoom
 - Slack
 - Trello

Productivity and Business Software (9 of 9)

Productivity Software (Objective 4.7)

- Personal financial software
 - Electronic checkbook registers
 - Automatic bill payment tools
 - Tax preparation software
 - Intuit TurboTax
 - H&R Block Tax



Productivity and Business Software (1 of 2)

Business Software (Objective 4.8)

- Small business software
 - Accounting software
 - Track accounts receivable and payable
 - Inventory management, payroll, and billing
 - Desktop publishing (DTP) software
 - Design newsletters and other publications
 - Web authoring software
 - Design web pages

Productivity and Business Software (2 of 2)

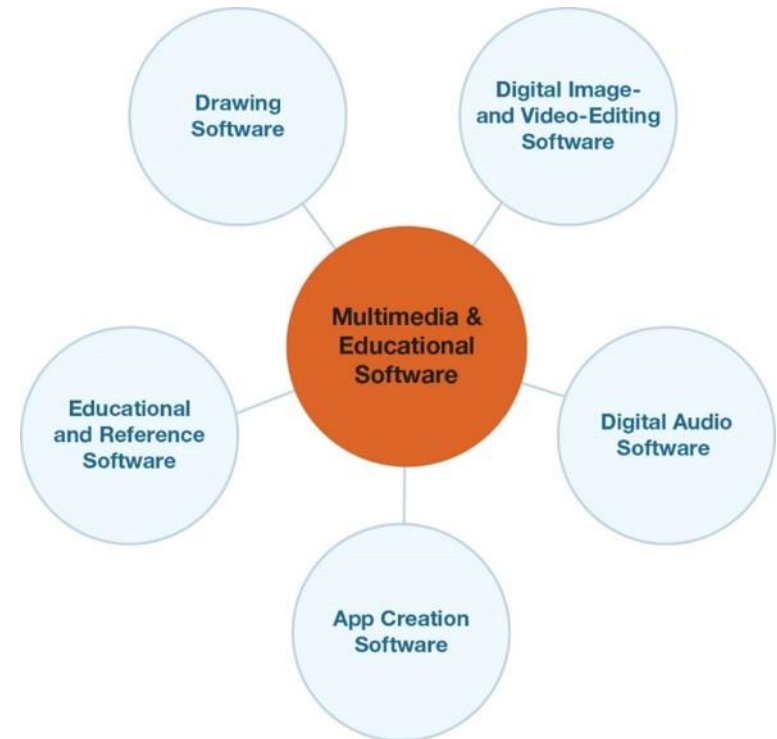
Business Software (Objective 4.8)

- Software for large and specialized businesses
 - Vertical market software is designed for a specific industry
 - Computer-aided design (CAD) programs create automated designs, technical drawings, and 3D model visualizations

Multimedia and Educational Software (1 of 3)

Multimedia Software (Objective 4.9)

- Multimedia software
 - Includes digital image, video-editing, and digital audio software
 - Used to produce computer games, animations, and movies



Multimedia and Educational Software (2 of 3)

Multimedia Software (Objective 4.9)

- Multimedia software
 - Image-editing software used to edit photos
 - Video-editing software used to refine videos

Multimedia and Educational Software (3 of 3)

Multimedia Software (Objective 4.9)

- Multimedia software
 - Drawing software lets you create
 - Two-dimensional, line-based drawings
 - Technical diagrams
 - Animations
 - Professional-level
 - Adobe Illustrator



Digital Image- and
Video-Editing Software



Drawing Software



Digital Audio Software



App Creation Software



Educational and
Reference Software

Multimedia and Educational Software

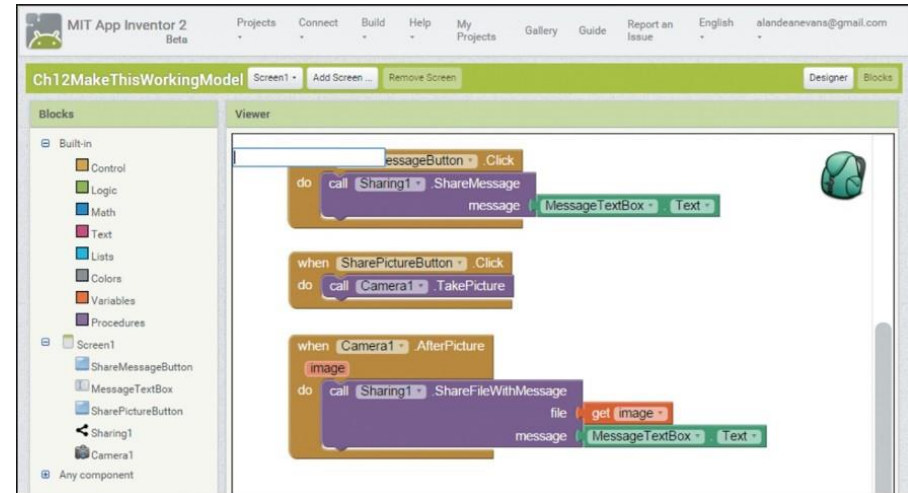
Audio Software (Objective 4.10)

- Downloaded music files, audiobooks, or podcasts
 - Compressed: MP3, AAC, WMA
 - Uncompressed: WAV, AIFF
- Digital audio workstation software (DAWs)
- Audio-editing software

Multimedia and Educational Software

App Creation Software (Objective 4.11)

- App creation software—programming environments that produce apps that run on mobile devices
 - App Inventor
 - Thunkable
 - Corona
 - Unity
 - RPG Maker



Multimedia and Educational Software

Educational and Reference Software (Objective 4.12)

- Some educational and reference software examples
 - Test preparation
 - Simulation
 - Home design/improvement
 - Course management
 - Genealogy