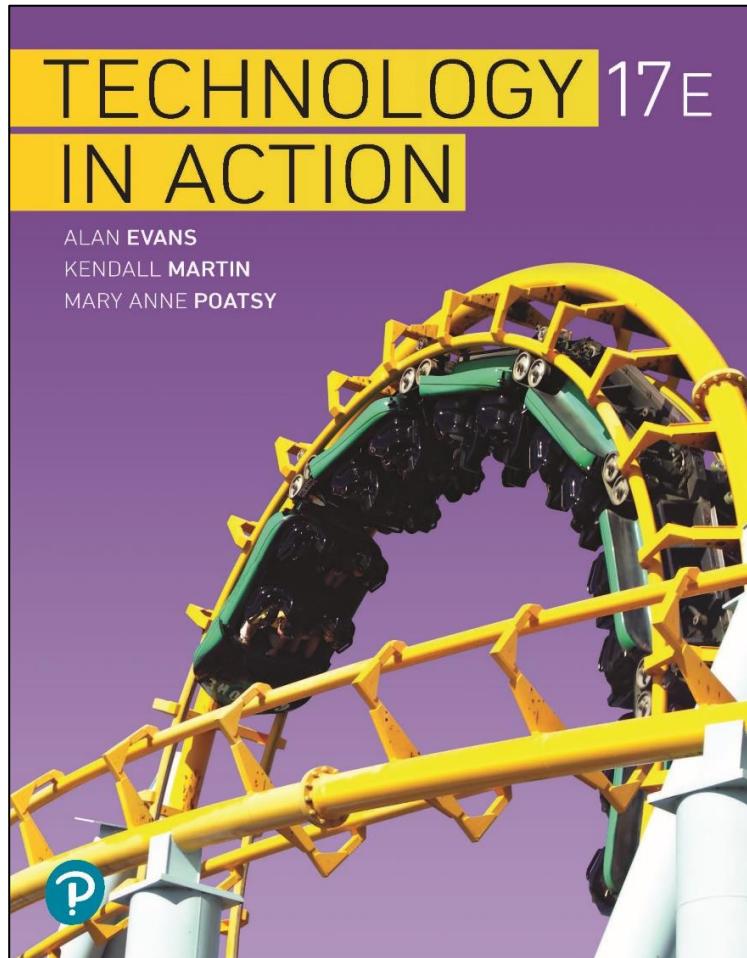


# Technology in Action

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

The screenshot shows a Microsoft Word document with the following features highlighted:

- Formatted header:** The header 'THE CONNECTIONS BLOGS' and date '05/01/2018' are shown.
- Drop cap:** The first letter 'T' in the first paragraph is a large, stylized drop cap.
- Image with text wrapping options:** An image of a social network interface is shown with text wrapped around it.
- Headings:** The main title 'Privacy and Security of Social Networks' and a sub-section 'Privacy/Security Importance' are highlighted.
- Two-column layout:** The document is in two columns.
- Bullet points:** A list of precautions is shown.
- Hyperlinks:** A link to Facebook's privacy guide is shown.
- Page numbers and formatted footer:** The footer '1 | Page' is shown.

# Productivity and Business Software (3 of 9)

## Productivity Software (Objective 4.7)

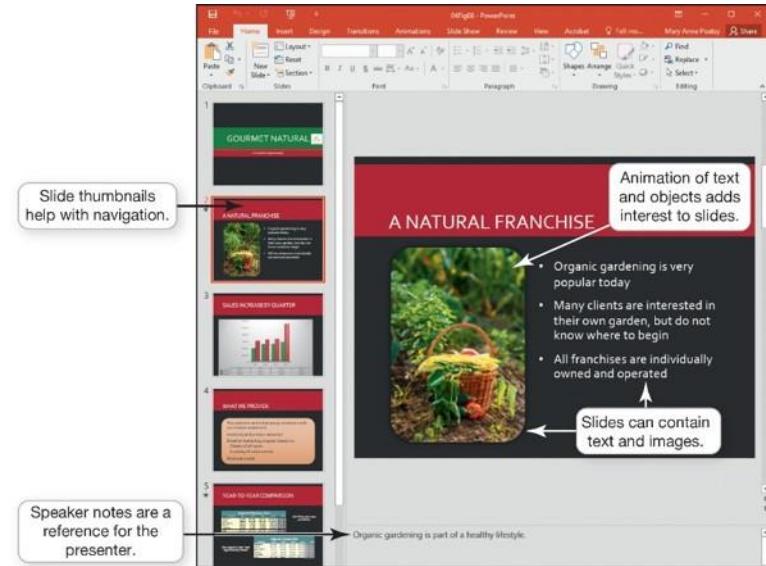
- Spreadsheet—performs calculations and numerical analyses
- Data types
  - Text
  - Values and dates
  - Formulas
  - Functions
- Examples
  - Excel
  - Calc

	A	B	C	D	E	F
1		College Cash Flow				
2		Sept	Oct	Nov		
3	Income					
4	Work income	\$ 2,200	\$ 2,100	\$ 2,125		
5	Scholarship	2,500	0	0		
6	Financial aid	1,500	0	0		
7	Other income	475	430	500		
8	Total Income	\$ 6,475	\$ 2,530	\$ 2,625		
9	Expenses					
10	Books	\$ 750	\$ 50	\$ 25		
11	Clothing	200	100	150		
12	College tuition	1,875	0	0		
13	Credit card/other loans	750	1,000	950		
14	Groceries & other food	400	525	410		
15	Cable TV, Internet, Cell phone	125	150	145		
16	Travel & recreation	250	150	300		
17	Total Expenses	\$ 4,450	\$ 1,975	\$ 1,980		
18	Net Income	\$ 2,125	\$ 555	\$ 645		
		Function: =SUM(B10:B16)	Formula: =D8-D17			
				"Membership" row inserted		Results of recalculated formulas

# Productivity and Business Software (4 of 9)

## Productivity Software (Objective 4.7)

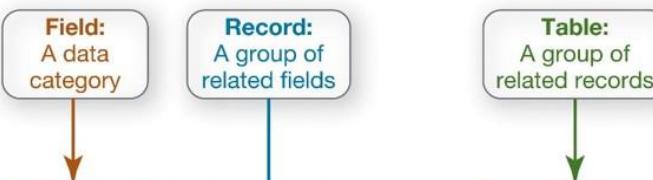
- Presentation software
  - Tips for designing good presentations
    - Use images
    - Be careful with color
    - Use bullets for key points
    - Consider font size and style
    - Minimize animation and background audio



# Productivity and Business Software (5 of 9)

## Productivity Software (Objective 4.7)

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



The diagram illustrates the hierarchical structure of database components. Three callout boxes define the terms:

- Field:** A data category (orange text)
- Record:** A group of related fields (teal text)
- Table:** A group of related records (blue text)

Arrows point from these definitions to specific cells in a data table below. The table shows a list of employees with columns for ID, FirstName, LastName, Company, Street, City, State, and ZipCode.

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 Roac	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](http://evernote.com))

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

### AudioNote ([luminantsoftware.com](http://luminantsoftware.com))

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

### Simplenote ([simplenote.com](http://simplenote.com))

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

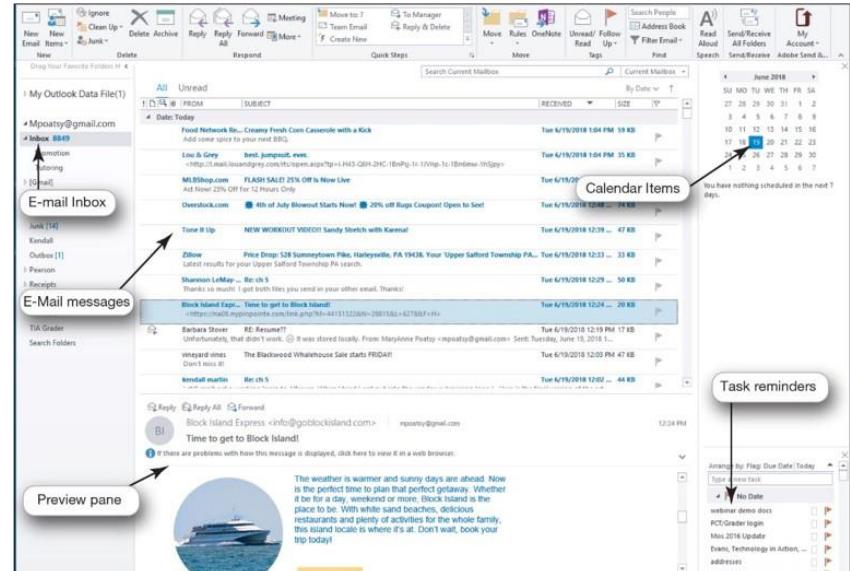
### Notability ([gingerlabs.com](http://gingerlabs.com))

- 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)

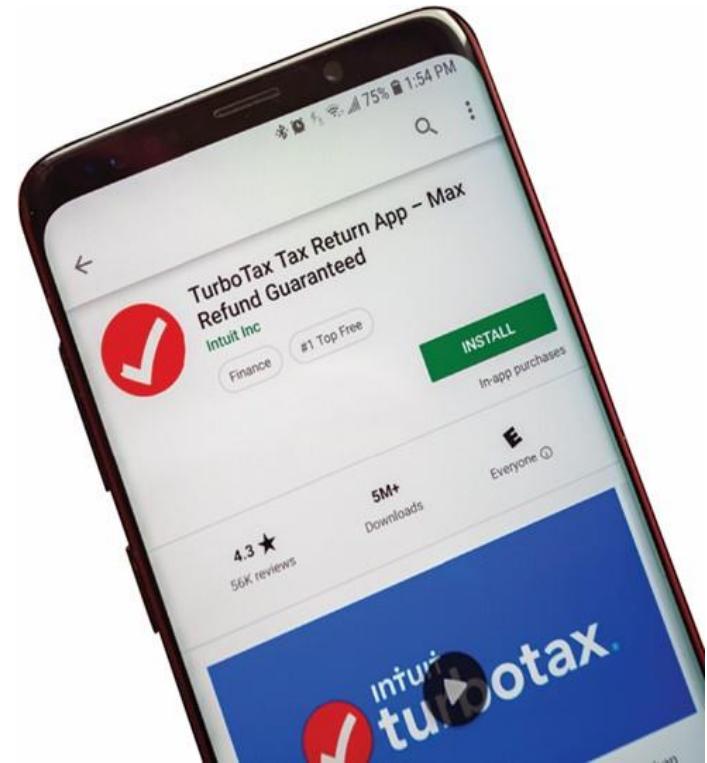
## Productivity Software (Objective 4.7)

- 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)

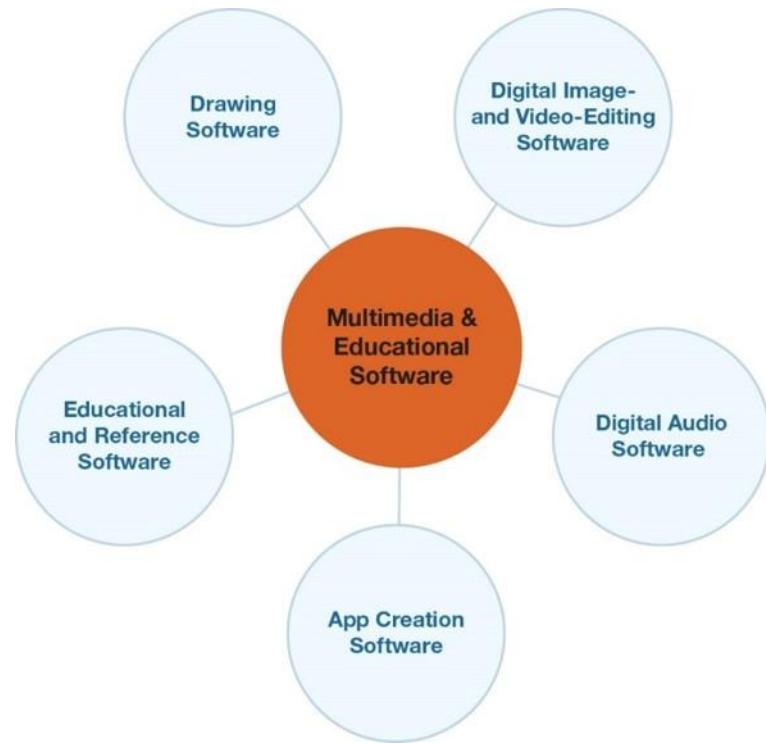
## Business Software (Objective 4.8)

- 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

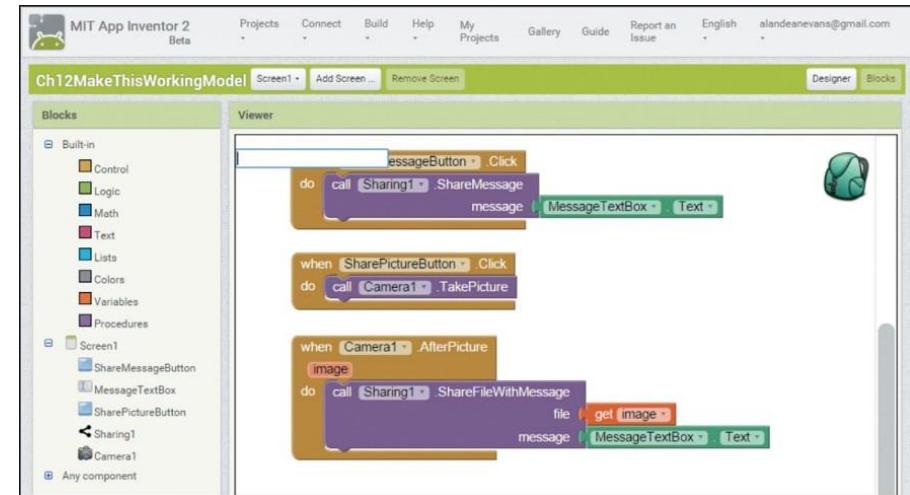
## Audio Software (Objective 4.10)

- 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