Tishk International University
Faculty of Applied Science
Department of Information Technology

Introduction to Information Technology I
IT 105
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Basic Application Software

Lecture 2

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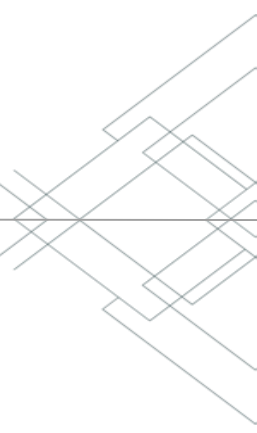
Learning Outcomes

1. Identify general-purpose applications.
2. Describe word processors, spreadsheets, presentation programs, and database management systems.
3. Describe specialized applications.
4. Describe mobile apps and app stores.
5. Identify software suites.
6. Describe office suites and cloud suites

Introduction

- Competent end users need to understand
  the capabilities of basic application
  software including:
  - Word processors
  - Spreadsheets
  - Presentation programs
  - Database management systems

Application Software

- Application software: is end user software that is used to accomplish a variety of tasks

- There are three categories of application software:
    1. General Purpose Applications
   2. Specialized Applications
    3. Mobile Apps

Application Software

- There are three categories of application software:
    1. General Purpose Applications– word processing, spreadsheets, presentation, and database management systems
    2. Specialized Applications – tend to be more focused and used in specific areas
    3. Mobile Apps– add-on features or programs designed for mobile devices such as smartphones and tablets.

User Interface

- Graphical User Interface (GUI) consists of:
  1. Icons
  2. Pointer
  3. Windows
  4. Menus
     - Menu bar
  5. Toolbars
   - Buttons
  6. Dialog Boxes
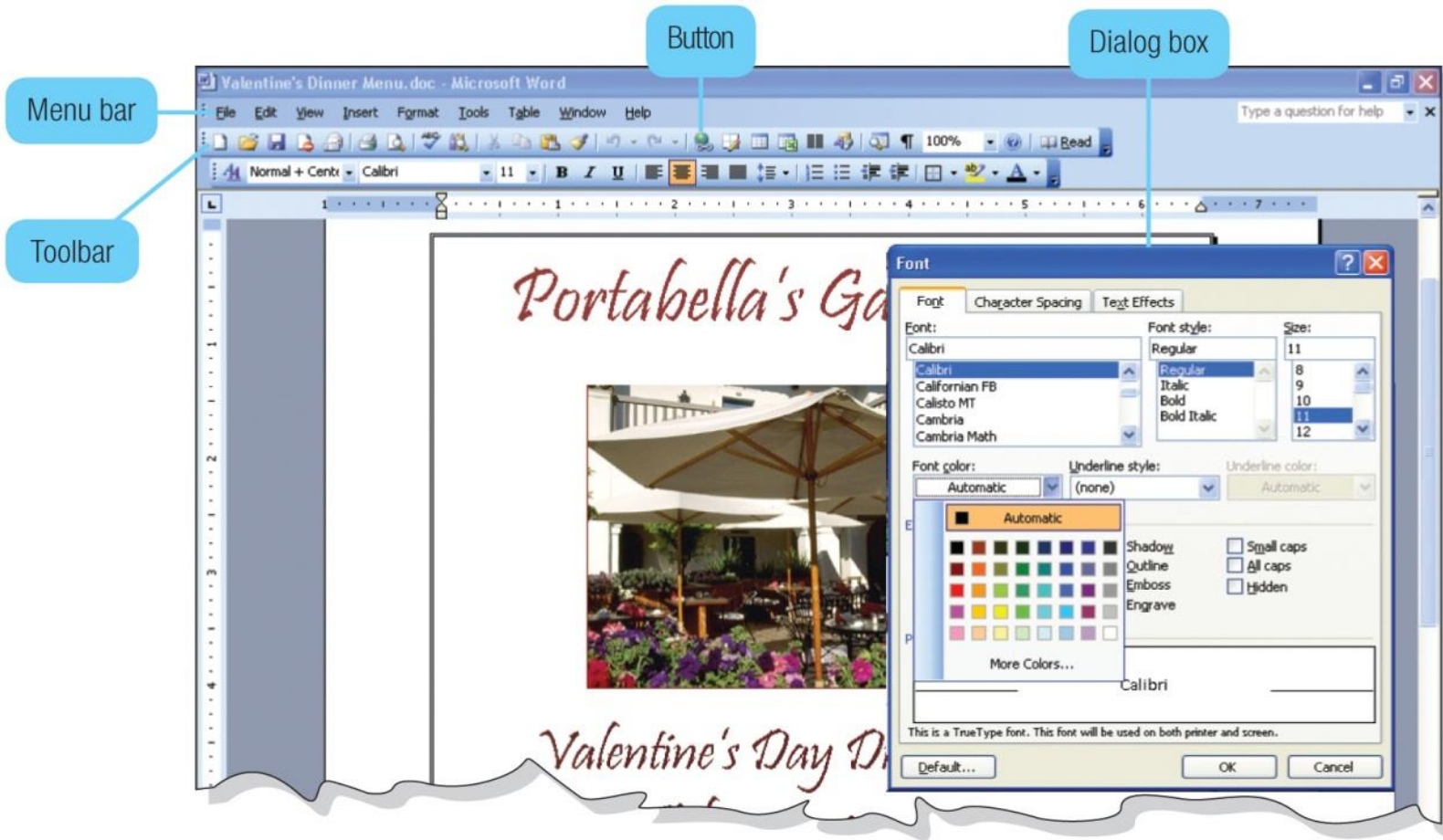
User Interface

- User interface or Graphical User Interface (GUI) allows the user to control and interact with the program.

- Graphical elements called Icons can be clicked on by the user using the mouse.

- The mouse controls the pointer on the screen to select the icon.

- Once the icon is selected and clicked, the represented program will display in the window which is the rectangular area containing a document, program or message.

User Interface

- Most programs use a system of menus, toolbars, and dialog boxes.
- Menus present commands that are displays in the menu bar at the top of the screen.
- Toolbars appear below the menu bar and include graphic elements known a buttons the user can click on as a shortcut.
- Dialog Boxes provide additional information and request user input.

User Interface

- Many applications, and Microsoft applications in particular, use an interface known as the Ribbon GUI, which changes based on the needs of the user.

- This GUI uses a system of interrelated ribbons, tabs, and galleries.
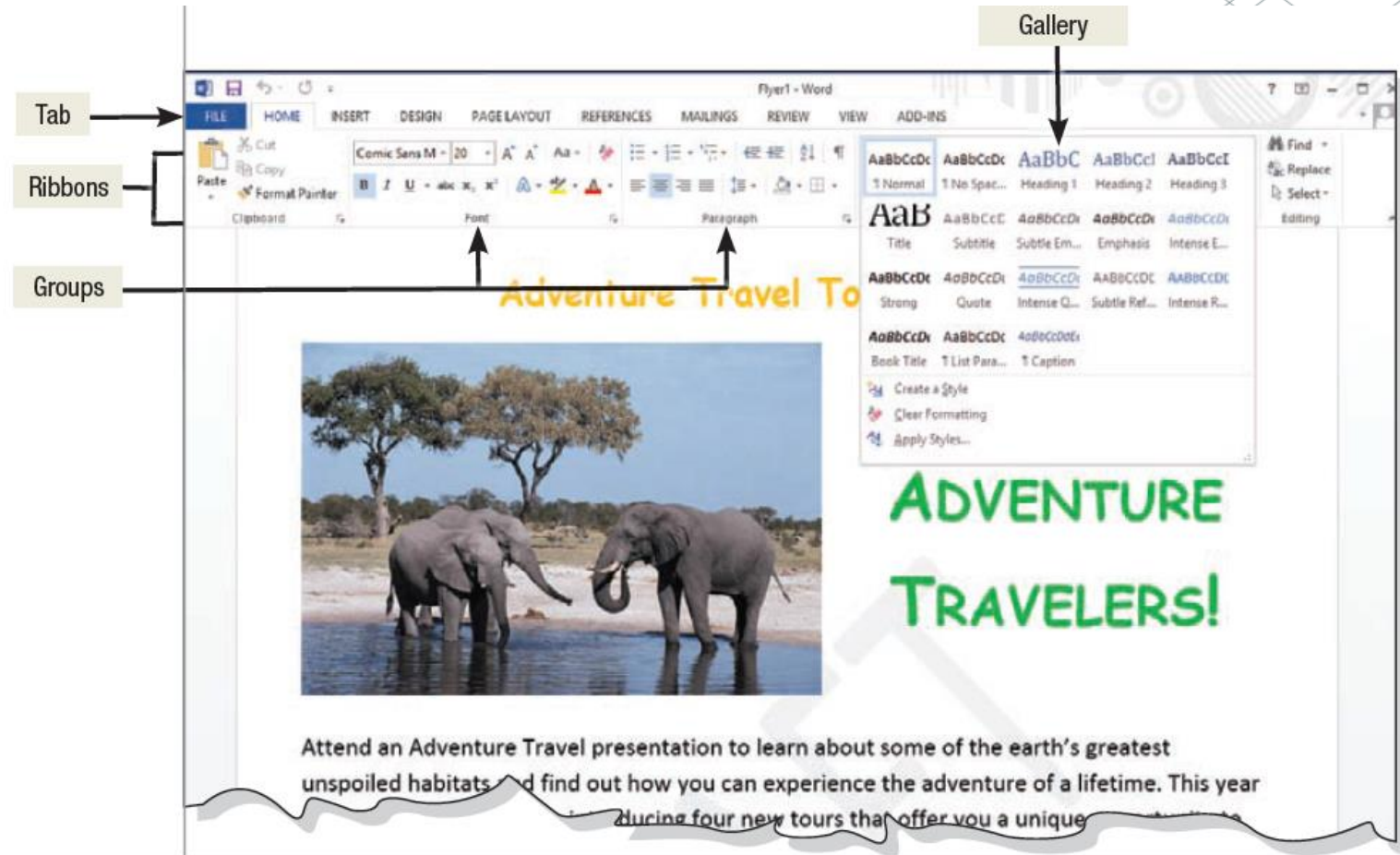
User Interface

- Ribbons replace toolbars and menus by organizing commonly used commands into sets of related activities. These activities are displayed as tabs.

- Tabs divide the ribbon into major activity areas.

- Each tab is then organized into groups that contain related items.

- Some tabs, called contextual tabs, appear only when they are needed and anticipate the next operation to be performed by the user.

- Galleries, like dialog boxes, provide additional options and simplify choosing an option by showing the effect.

# Common Features in application program (Microsoft Word)

Most applications provide a variety of features to make entering/presenting, editing, and formatting documents easy. Some of the most common features include:

1. Spell checker—looks for misspelled words.
2. Alignment—centers, right-aligns, or left-aligns numbers and characters.
3. Fonts and font sizes—specify the size and style of entered numbers and text.
4. Character effects—provide a variety of different typefaces, such as bold or italics.
5. Edit options—provide easy ways to edit text, such as cut, copy, and paste.

Concept check

1) List three categories of application software.
2) What is a graphical user interface? What are windows, menus, toolbars, and dialog boxes?
3) What are ribbons, tabs, and galleries?
4) Discuss some of the most common features in application program such as Microsoft Word.

General Purpose Applications
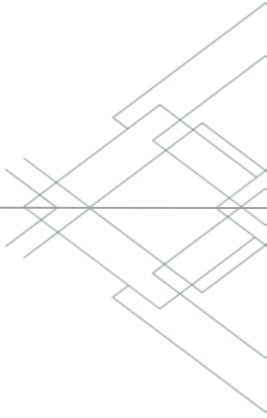
- General purpose applications include:

  1. Word processor programs

  2. Spreadsheet programs

  3. Presentation programs

  4. Database management systems

Word Processor Programs

- Word Processor Programs is one of the most flexible and widely used software tools used to create text-based documents such as letters and reports

- Microsoft Word is the most widely used word processor.

- Other popular word processors include :
  - Apple Pages
  - Google Docs

Creating a Flyer

- **Flyer Features**
  - Spell Checker
  - Center-alignment
  - Grammar Checker
  - Fonts
  - Font Sizes
  - Character Effects

Spell Checker
Correcting spelling and typing errors identified by the **spell checker** creates an error-free and professional-looking document.

Fonts and Font Size
Using interesting **fonts** and a large **font size** in the flyer's title grabs the reader's attention.

Center-Aligning
Center-aligning all of the text in the flyer creates a comfortable, balanced appearance.

Character Effects
Adding **character effects** such as bold and color makes important information stand out and makes the flyer more visually interesting.
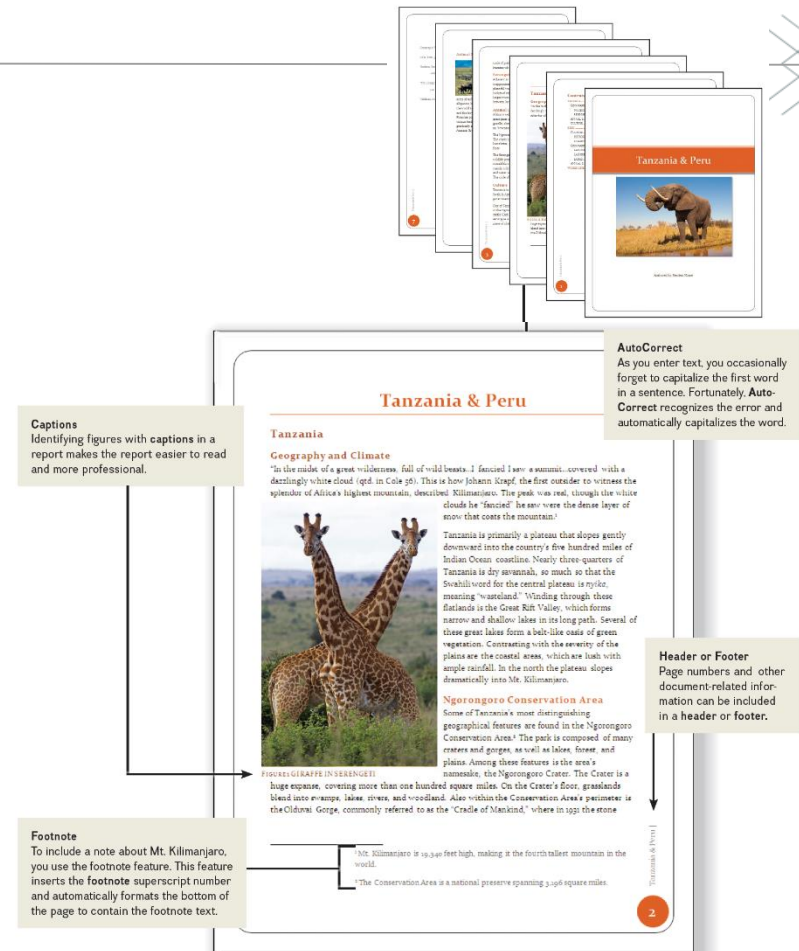
Grammar Checker
Incomplete sentences, awkward wording, and incorrect punctuation are identified and corrections are offered by the **grammar checker.**

Creating a Report

- **Report Features**
  - AutoCorrect
  - Footnote
  - Header or Footer
  - Captions
  - Tables

Spreadsheet Programs

- **Spreadsheet program** organize, analyze and graph numeric data such as budgets and financial reports.

- The most widely used spreadsheet program is Microsoft Excel.

- Other spreadsheet applications include:
  - Apple Numbers
  - Google Sheets

Creating a Sales Forecast

- Features
  - Worksheets
  - Text entries
  - Functions
  - Cells
  - Formulas

Worksheets
Worksheets are used for a wide range of different applications. One of the most common uses is to create, analyze, and forecast budgets.

Text Entries
Text entries provide meaning to the values in the worksheet. The rows are labeled to identify the various sales and expense items. The columns are labeled to specify the months.

Functions
Functions are prewritten formulas. In this case, cell C22 (Total Expenses for February) contains the function SUM(C14:C21) rather than the formula = C14 + C15 + C16 + C17 + C18 + C19 + C20 + C21.

Cells
Cells can contain labels, numbers, formulas, and functions. A cell's content is indicated by the row and column labels. For example, cell D16 contains a number for the Payroll expense expected for March.

Formulas
Formulas provide a way to perform calculations in the worksheet. In this case, cell C24 contains the formula = C12 (Total Sales for February) – C22 (Total Expenses for February) and displays the result of the calculation for the Net Income for February.

C22		fx	=SUM(C14:C21)			
	A	B	C	D	E	F
1						
2		Downtown Internet Café				
3		First Quarter Forecast				
4						
5		JAN	FEB	MAR	TOTAL	AVG
6	Sales					
7	Espresso	$ 13,300	$ 13,600	$ 14,200	$ 41,100	$ 13,700
8	Drip Coffee	$ 5,800	$ 6,000	$ 6,200	$ 18,000	$ 6,000
9	Food/Beverage	$ 3,600	$ 3,800	$ 3,800	$ 11,200	
10	Merchandise	$ 1,000	$ 1,100	$ 1,100	$ 3,200	
11	Computer	$ 400	$ 400	$ 400	$ 1,200	
12	Total Sales	$ 24,100	$ 24,900	$ 25,700	$ 74,700	
13	Expenses					
14	Cost of Goods	$ 7,225	$ 7,480	$ 7,690	$ 22,395	
15	Cost of Merchandise	$ 700	$ 770	$ 770	$ 2,240	
16	Payroll	$ 9,000	$ 9,000	$ 9,000	$ 27,000	$ 9,000
17	Internet	$ 325	$ 325	$ 325	$ 975	$ 325
18	Building	$ 2,100	$ 2,100	$ 2,100	$ 6,300	$ 2,100
19	Advertising	$ 600	$ 600	$ 600	$ 1,800	$ 600
20	Capital Assets	$ 1,500	$ 1,500	$ 1,500	$ 4,500	$ 1,500
21	Miscellaneous	$ 1,300	$ 1,300	$ 1,300	$ 3,900	$ 1,300
22	Total Expenses	$ 22,750	$ 23,075	$ 23,285	$ 69,110	$ 23,037
23	Income					
24	Net Income	$ 1,350	$ 1,825	2,415	$ 5,590	$ 1,863
25	Profit Margin	5.60%	7.33%	9.40%	7.48%	7.48%
26			Income Year-To-Date	$ 5,590		

Presentation Graphics Programs

- **Presentation software** are programs that combine a variety of visual objects to create attractive, visually interesting presentations.

- **Presentation software** are excellent tools to communicate a message and to convince people.

- The most widely used presentation software programs are Microsoft PowerPoint, Apple Keynote, and Google Slides.

Creating a Presentation

- **Presentation Features**
  - Document Theme
  - Animation
  - Templates

Document Theme
To make your presentation more professional and eye-catching, you select a **document theme**, built-in sets of colors, fonts, and effects that can be quickly applied to your entire presentation.

Animation
To provide additional emphasis to items or show the information on a slide in phases, you add **animation** to text and objects. Finally, you use slide **transition** effects to animate the transition from one slide to the next.

Templates
Templates provide an excellent way to quickly create a presentation by providing predesigned styles and layouts as well as suggested content based on the type of template you select.

How Does the Foundation Help?
- Provides temporary homes
- Provides obedience training
- Provides veterinary care
- Finds loving permanent homes

Animal Rescue Foundation

Who Are Animal Angels?
- Believe unwanted animals deserve a ho
- Believe you can teach an old dog new t
- Believe you can retrain animals to be l

Animal Rescue Foundation

Join Animal Angels
Animal Rescue Foundation
Volunteer Coordinator

Database Management Systems (DBMS)

- A database is a collection of related data.

- A database is the electronic equivalent of a file cabinet.

- A database management system (DBMS) or database manager is a program that sets up, or structures, a database. It also provides tools to enter, edit, and retrieve data from the database.

- The widely used database management system designed for personal computers are Microsoft Access.

Concept check

1) What are word processors? What are they used for?
2) What are spreadsheets? What are they used for?
3) What are presentation software programs? What are they used for?
4) What are database management systems? What are they used for?

Specialized Applications

- Specialized applications are widely used within specific professions.
- These programs includes:
  - Graphics Programs
  - Web Authoring Programs

Graphics Programs

- Graphics Programs are widely used by professionals in the graphic arts profession.
- Types of graphics programs are:
    1) Desktop Publishing Programs
    2) Image Editing Programs
    3) Illustration Programs
    4) Video Editors

Desktop Publishing Programs

- **Desktop publishing programs** or **page layout programs** give the graphic artist the ability to combine text and graphics to create publications.
- Popular programs:
  - Adobe InDesign
  - Microsoft Publisher

Image Editors

- Photo Editors or Image editors are used for editing or modifying digital photographs.
- The photograph is made of up thousands of dots or pixels, they form an image referred to as a bitmap.
- Popular image editors
  - Adobe Photoshop
  - Windows Live Photo Gallery

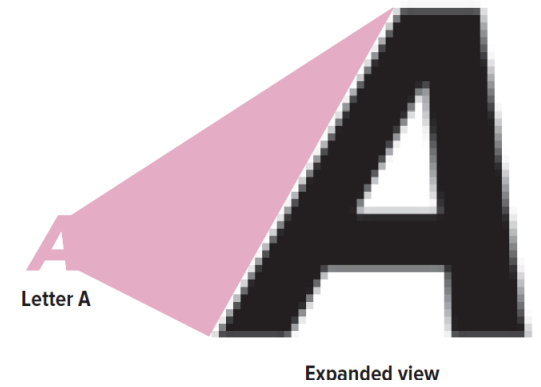Letter A

Expanded view

Illustration Programs

- Illustration programs also know as drawing programs create vector which differ from bitmap images.

- Vector images or vector illustrations are made up of geometric shapes or objects created by connecting lines and curves defined by mathematical equations.

- Popular Illustration Programs
  - Adobe Illustrator

Video Editors

- Video Editors Edit videos to enhance quality and appearance
  - Can now use your smartphone to edit videos
- Well-known programs
  - Apple iMovie
  - Adobe Premier
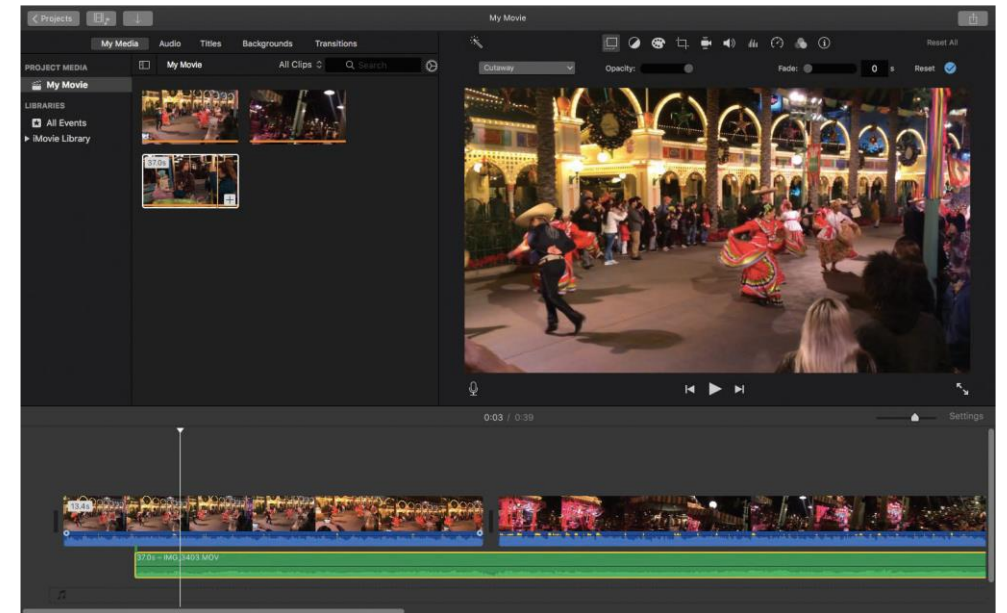
Concept check

1) What are desktop publishing programs?
2) What are image editors? Bitmap images?
3) What are illustration programs? Vector images?
4) What are video editors?

Mobile Apps

- Mobile Apps or mobile applications are add-on programs that can be downloaded from App Stores for your smartphone or tablet.

- Apps
  - Breadth and scope are ever-expanding
  - There are over 500,000 apps for Apple iPhone alone
  - Most popular are: Music, videos, social networking, shopping, games

App Stores

- App Stores provides access to mobile apps for downloads either for free or a fee.
- Two of the best-known stores are Apple's App Store and Google Play.
  - Apple's App Store
    - Apple Devices
    - www.apple.com/itunes/charts
  - Google Play
    - Andriod Devices
    - Play.google.com/store/apps
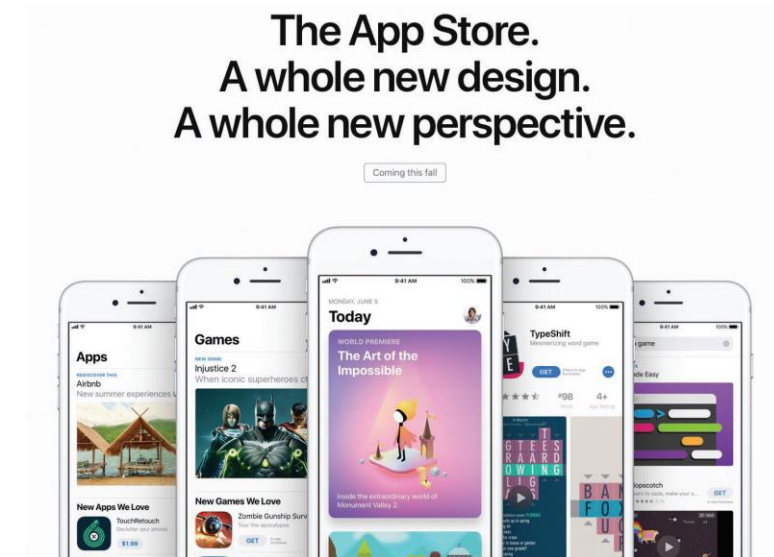
Concept check

1) What are mobile apps? What are they used for?
2) What are app stores? What are they used for?

Software Suites

- A software suite is a collection of separate application programs bundled together and made available as a group.

    - Office suites, also known as office software suites and productivity suites, contain general-purpose application programs that are typically used in a business situation.

    - Productivity suites commonly include a word processor, spreadsheet, database manager, and a presentation application. The best known is **Microsoft Office.**

Software Suites

- Cloud suites or online office suites are stored at a **server on the Internet** and are available anywhere you can access the Internet. Documents created using online applications can also be stored online, making it easy to share and collaborate on documents with others.

- Popular online office suites include **Google Docs and Microsoft Office 365.**

Concept check

1) What is a software suite?
2) What is the difference between a traditional office suite and a cloud or online suite?

Making IT Work for You - Google Docs

- Tool to create and collaborate with others

- Creating /sharing documents
  - Free and easy to use
  - Free Google account
  - Free online storage