

Lecture 07 - Programs & APPS



06016402 : Information Technology Fundamentals

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1. Programs and APPs

A **program**, or **software**, consists of a series of related instructions, organized for a common purpose, that tells the computer what tasks to perform and how to perform them.

โปรแกรม หรือ ซอฟท์แวร์ ประกอบไปด้วยชุดคำสั่งที่เกี่ยวข้องกัน ซึ่งพัฒนาขึ้นเพื่อวัตถุประสงค์ร่วมกัน เพื่อบอกคอมพิวเตอร์ว่า มีสิ่งที่ต้องทำอะไรบ้าง และบอกถึงวิธีการ ขั้นตอนต่างๆ ที่คอมพิวเตอร์จะต้องทำ

APP สร้าง Instruction →

PC ตรวจสอบ

1. Programs and APPs

- An **application**, or **app**, sometimes called application software, consists of programs designed to make users more productive and/or assist them with personal tasks
- Application หรือ app บางครั้งเรียกว่า Application software ประกอบไปด้วย โปรแกรมที่ถูกออกแบบมาเพื่อทำให้ user ใช้งานได้อย่างมีประสิทธิภาพ และ/หรือ ออกแบบมาเพื่อช่วย user ในงานส่วนตัวทั่วไปต่างๆ

Productivity



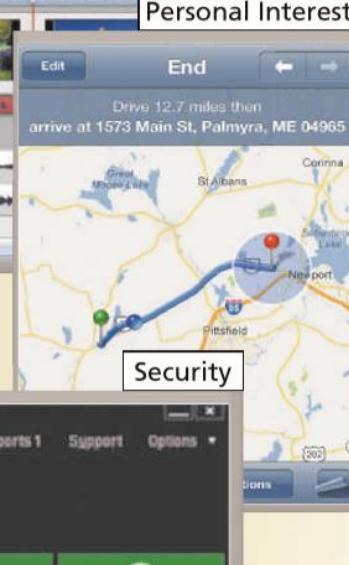
Communications



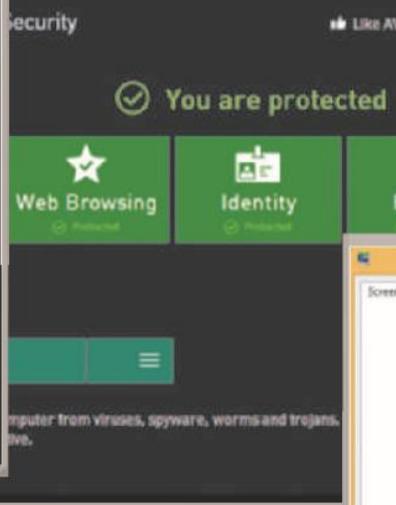
Graphics and Media



Personal Interest



Programs and Apps



File, Disk, and System Management



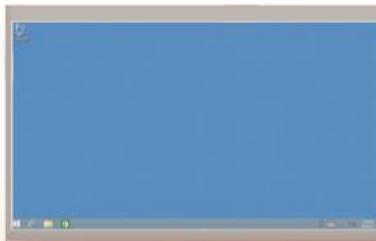
Operating system

- An **operating system** is a set of programs that coordinates all the activities among computer or mobile device hardware
- The operating system, therefore, **serves as the interface between the user, the applications and other programs, and the computer's or mobile device's hardware.**

ดังนั้น ระบบปฏิบัติการ ทำหน้าที่ให้บริการ การเชื่อมต่อ ระหว่าง **user** กับ **software** และ **hardware**.

An Example of How an Operating System Interacts with a User, an Application, and Hardware

Step 1
An operating system user interface is displayed on the screen when a user turns on a computer.



Print button

Step 2

The user instructs the operating system to run an application, such as a word processing application, which appears on the user's screen. The user then instructs the application to print a document.

document to be printed



Step 4
The operating system sends the print instruction to the printer (hardware), which prints the document.



Step 3

The application sends the print instruction to the computer's operating system (software), which is running on the computer.

2. Obtaining software

- **Retail software** is mass-produced, copyrighted software that meets the needs of a wide variety of users, **not just a single user or company.**

ซอฟท์แวร์ที่วางแผนจัดการทั่วไป *(retail software)*

- **Custom software** performs functions specific to a business or industry. Custom software usually **costs more than retail software.**

ซอฟท์แวร์แบบว่าจ้าง หรือ ซอฟท์แวร์แบบจ้างทำ จะทำงานตามพึงก์ชั้นที่ถูกกำหนดโดยผู้ว่าจ้าง จากภาคธุรกิจ อุตสาหกรรม.

2. Obtaining software

- A **web app** is an application stored on a web server that you access through a browser. ໄຊ່web/browser
- A **mobile app** is an application you download from a mobile device's **app store**, sometimes called a marketplace, or other location on the Internet to a smartphone or other mobile device. App Store ລະບຽບນັກສະເໜີ ໄຊ່ແລ້ວ
- A **mobile web app** is a web app that is optimized for display in a browser on a mobile device, regardless of screen size or orientation. Many app developers opt for web delivery because they do not have to create a different version for each mobile device's app store. Many web apps use a **responsive design**, which means the app displays properly on any computer or device Responsive Web app ປະຕິບາງຂາດຫຼຸງກ່າວ

2. Obtaining software

ຫົວໜາລາຍງານ

- **Shareware** is copyrighted software that is distributed at **no cost** for a **trial period**. To use a shareware program beyond that period, you send payment to the software developer or you might be billed automatically unless you cancel within a specified period of time.

Shareware → Free trial 7 days

- **Freeware** is copyrighted software provided at no cost by an individual or a company that retains all rights to the software.
- **Open source software** is software provided for use, modification, and redistribution. This software has no restrictions from the copyright holder regarding modification of the software's internal instructions and its redistribution.
- **Public-domain software** has been donated for public use and has no copyright restrictions.

↓ Free

3. Categories of Programs and Apps

Table 4-1 Programs and Apps by Category

Category	Types of Programs and Apps
Productivity (Business and Personal)	<ul style="list-style-type: none">Word ProcessingPresentationSpreadsheetDatabaseNote TakingCalendar and Contact ManagementProject ManagementAccountingPersonal FinanceLegalTax PreparationDocument ManagementSupport ServicesEnterprise Computing
Graphics and Media	<ul style="list-style-type: none">Computer-Aided Design (CAD)Desktop PublishingPaint/Image EditingPhoto Editing and Photo ManagementClip Art/Image GalleryVideo and Audio EditingMultimedia and Website AuthoringMedia PlayerDisc Burning
Personal Interest	<ul style="list-style-type: none">LifestyleMedicalEntertainmentConvenienceEducation

3. Categories of Programs and Apps

Communications

- Blog
- Browser
- Chat Room
- Online Discussion
- Email
- File Transfer
- Internet Phone
- Internet Messaging
- Mobile Messaging
- Videoconference
- Web Feeds

Security

- Personal Firewall
- Antivirus
- Malware Removers
- Internet Filters

File, Disk, and System Management

- File Manager
- Search
- Image Viewer
- Uninstaller
- Disk Cleanup
- Disk Defragmenter
- Screen Saver
- File Compression
- PC Maintenance
- Backup and Restore

4. Productivity Applications

- **Productivity applications** can assist you in becoming more effective and efficient while performing daily activities at work, school, and home. កម្មវិធាន/នគរបាល

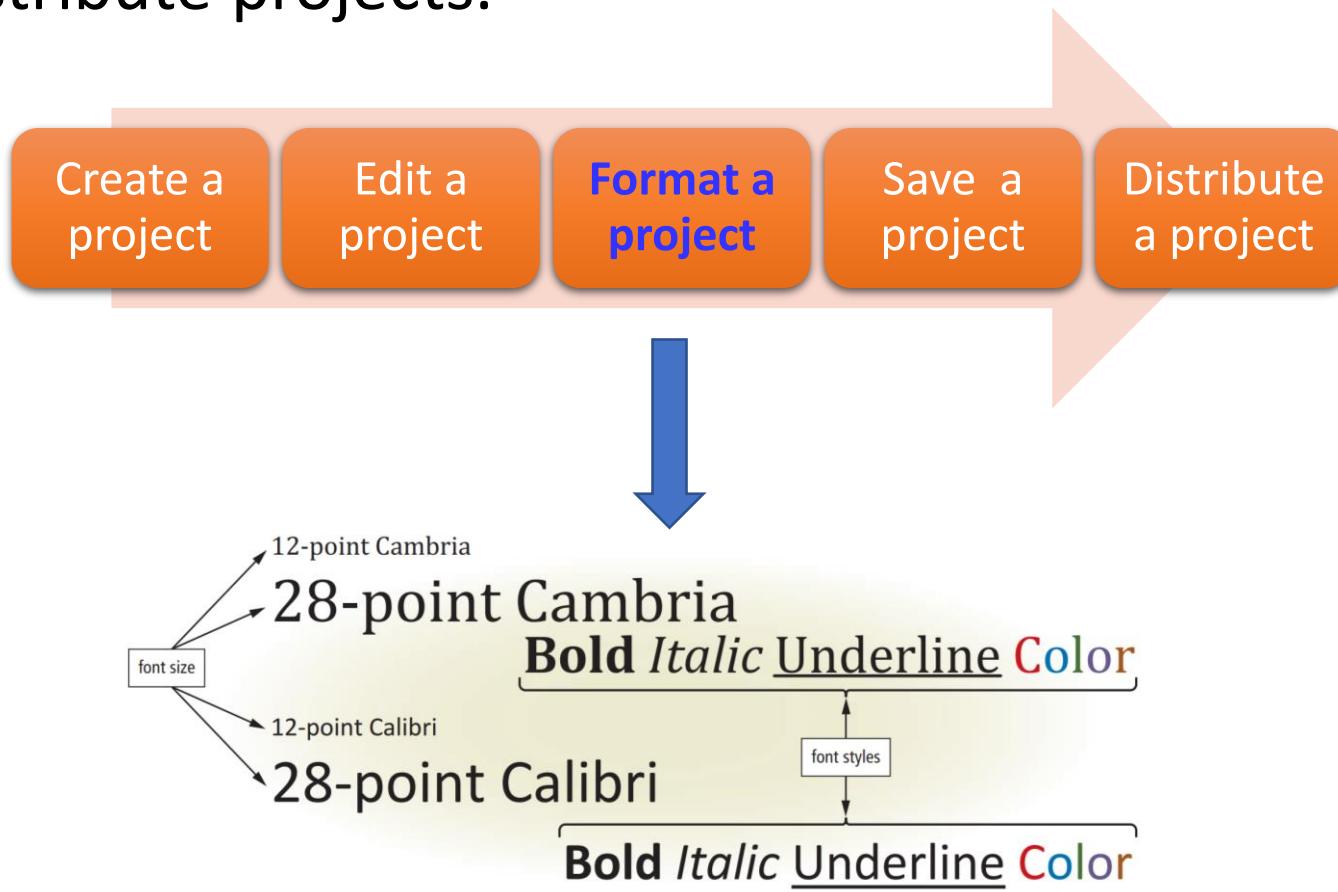
Productivity - កម្មវិធាន

- Productivity applications include

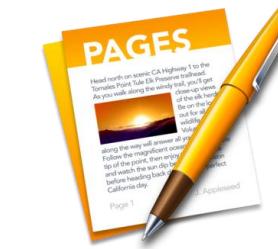
Word processing	Presentation	Spreadsheet	Database	Note taking
Calendar and contact management	Project management	Accounting	Personal finance	Legal
Tax preparation	Document management	Enterprise computing		

4. Productivity Applications

- **Developing Projects** With productivity applications, users often create, edit, format, save, and distribute projects.



4.1 Word Processing



Google Docs

- **Word processing software**, sometimes called a **word processor**, is an application that allows users to create and manipulate documents containing mostly text and sometimes graphics.

ເປົ້າໂທນີ້ແມ່ນດາວໂຫຼວງໃນລົ້ອທີ່ຕະຫຼາດ font ລູກໄດ້

- A major advantage of using word processing software is that it enables users to change their written words easily.

Word processing software also has many features to make documents look professional and visually appealing.

For example, you can change the font, size, and color of characters; apply special effects ; and organize text in newspaper-style columns.

Word Processing

document is displayed in window

image

printed document

HEARTLAND TRACTOR CLUB

323 Pine Avenue, Graber, OK 74877 • Phone: (476) 555-9384 • Web address: www.hltclub.com

April 27, 2016

Mr. Harvey Wilcox
Wilcox Tractor Restorations
3009 North 2850 East Road
Roundwood, OK 74519

Dear Mr. Wilcox:

We are delighted you are considering advertising your business, Wilcox Tractor Restorations, in *Heartland Tractor Magazine*, our monthly publication for tractor enthusiasts. The table below outlines advertisement rates per monthly issue:

Monthly Issue Advertisement Rates				
Type	Dimensions	Word Count	Photo Count	Cost
Full Page	9" x 7"	800	4	\$650
Half Page	4.5" x 7"	400	2	\$350
Quarter Page	4.5" x 3.5"	200	1	\$225
Business Card	2.5" x 3.5"	100	0	\$100

Please note that additional fees will be assessed if the word or photo counts exceed the limits listed above. We offer the following discounts:

- 10 percent discount for any advertisement that runs in three consecutive issues
- 5 percent discount for a camera-ready advertisement (prepared using Microsoft Word at the proper size and with all words and photos in final layout form)
- 3 percent discount if payment in full is submitted with order

For further details or to place your advertisement, please contact Darla Goldman at (476) 555-9389 or via e-mail at dgoldman@hltclub.com. We look forward to running an advertisement for Wilcox Tractor Restorations.

Sincerely,

Frank Urbanczyk
President

PAGE 1 OF 1 216 WORDS

4.2 Presentation



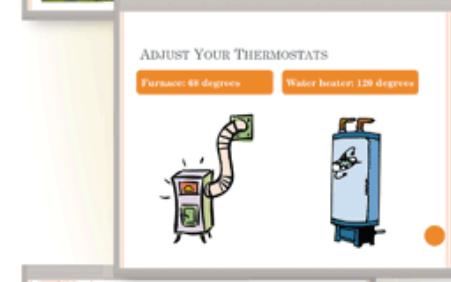
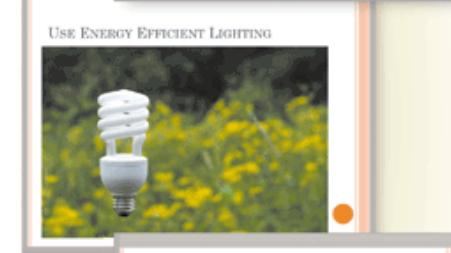
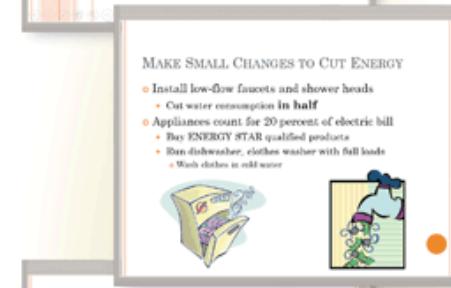
Google Slides

- **Presentation software** is an application that allows users to create visual aids for presentations to communicate ideas, messages, and other information to a group.
- The presentations can be viewed as slides, sometimes called a **slide show**, that are displayed on a large monitor or on a projection screen from a computer or mobile device

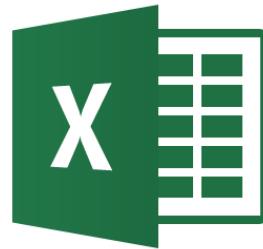


A screenshot of a Microsoft PowerPoint slide titled "Making PowerPoint Slides". The slide has a dark green background with a red vertical bar on the right. The main text reads "Making PowerPoint Slides" and "AVOIDING THE PITFALLS OF BAD SLIDES". Below the main text, there is a bulleted list: "1. Basics", "2. Design", "3. Content", "4. Delivery", and "5. Distribution". The slide is part of a larger presentation, as indicated by the thumbnails in the left pane. The top of the screen shows the PowerPoint ribbon and some decorative icons.

A screenshot of a presentation slide titled "My First Wonderful App". The slide features a large image of a smartphone displaying a social media-like interface with a person sitting on a beach. Below the phone, there is a caption: "Wow, such shadow, many cool, so skill...". To the left of the phone, there is a sidebar with four small thumbnail images labeled 1, 2, 3, and 4. The top of the slide has a toolbar with various presentation controls.



4.3 Spreadsheet



Google Sheets

- **Spreadsheet software** is an application that allows users to organize data in columns and rows and perform calculations on the data. These columns and rows collectively are called a **worksheet**.
- A **cell** is the intersection of a column and row. The spreadsheet software identifies cells by the column and row in which they are located. For example, the intersection of column B and row 4 is referred to as cell B4. *Worksheet*

cell → 3rd row, col

4.3 Spreadsheet

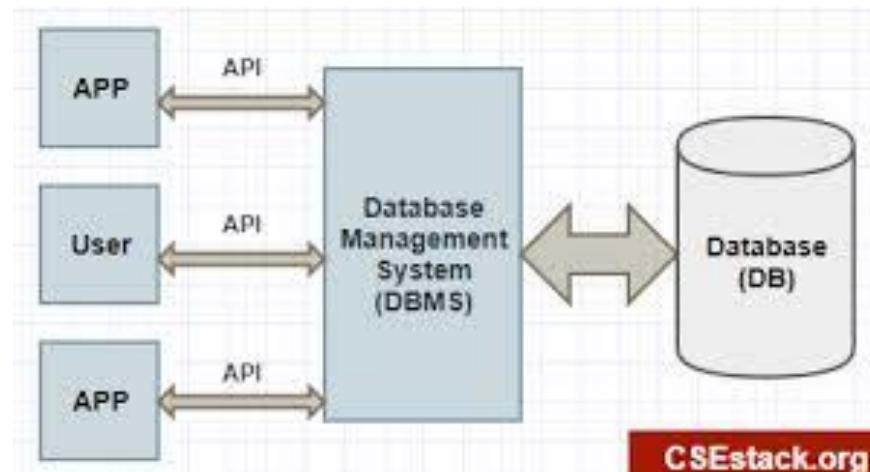
$f(x)$ ដែល រាយការណ៍ទូរតាញ Graph

- A formula performs calculations on the data in the worksheet and displays the resulting value in a cell, usually the cell containing the formula. When creating a worksheet, you can enter your own formulas.
- A **function** is a predefined formula that performs common calculations, For example, the function =SUM(B9:B16).
- One of the more powerful features of spreadsheet software is its capability to recalculate the rest of the worksheet when data in a cell changes.
ធនធាន/នៅលើមី
- Another standard feature of spreadsheet software is charting, which **depicts the data in graphical form**, such as bar charts or pie charts.

4.4 Database



- A **database** is a collection of data organized in a manner that allows access, retrieval, and use of that data.
- **Database software**, often called a **database management system (DBMS)**, is an application that allows users to create, access, and manage a database. Using database software, you can add, change, and delete data in a database; sort and retrieve data from the database; and create forms and reports using the data in the database.



4.4 Database

- With most personal computer database programs, a database consists of a **collection of tables**, organized in rows and columns. **Each row, called a record**, contains data about a given item in the database, which is often a person, product, object, or event. **Each column, called a field**, contains a specific category of data within a record.

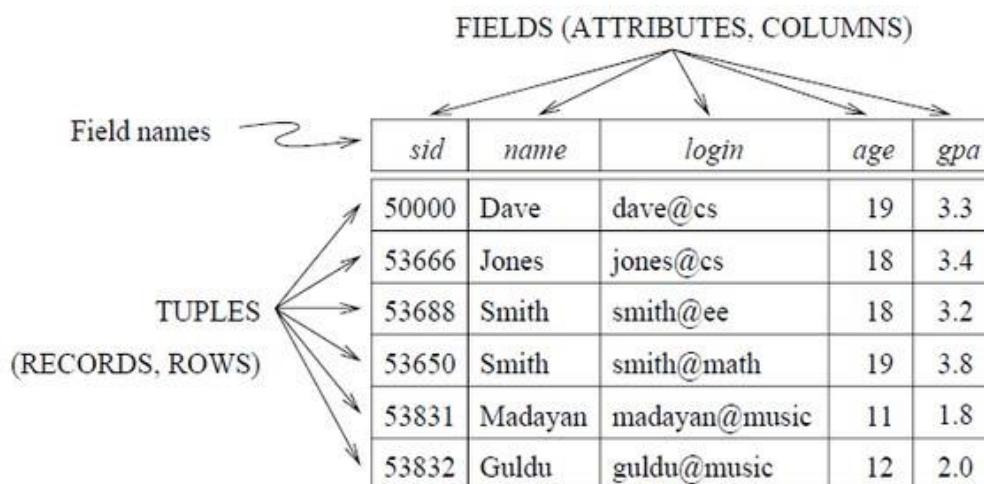
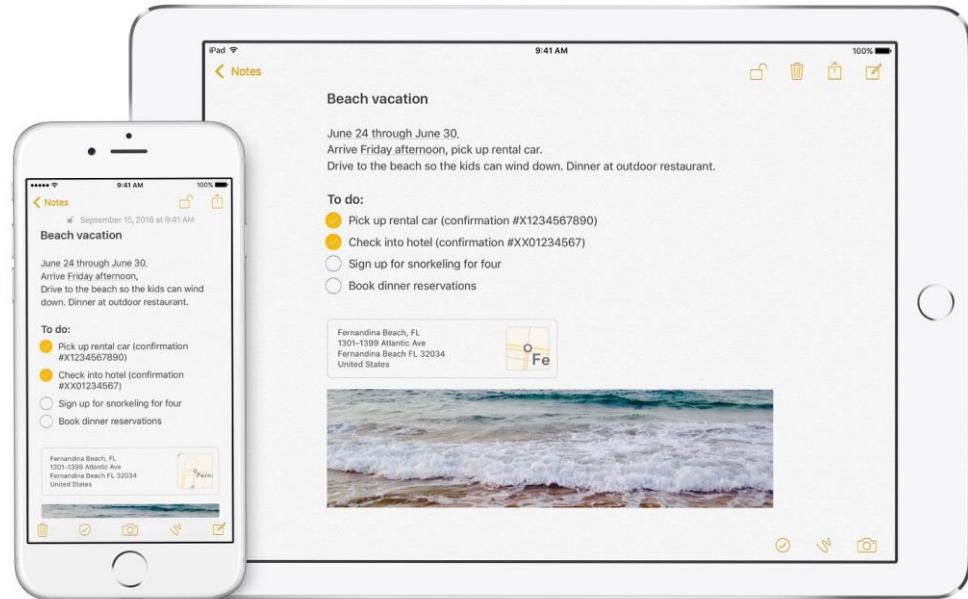
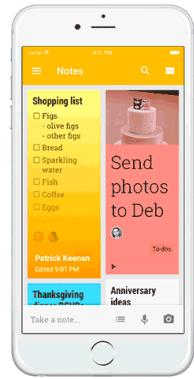


Figure 3.1 An Instance *S1* of the Students Relation

4.5 Note Taking

- **Note taking software** is an application that enables users to enter typed text, handwritten comments, drawings, sketches, photos, and links anywhere on a page and then save the page as part of a notebook.
- Some enable users to sync their notes to the cloud so that they can access the notes on any computer or mobile device. Many note taking applications also include a calendar feature.

4.5 Note Taking



Notes : Apple

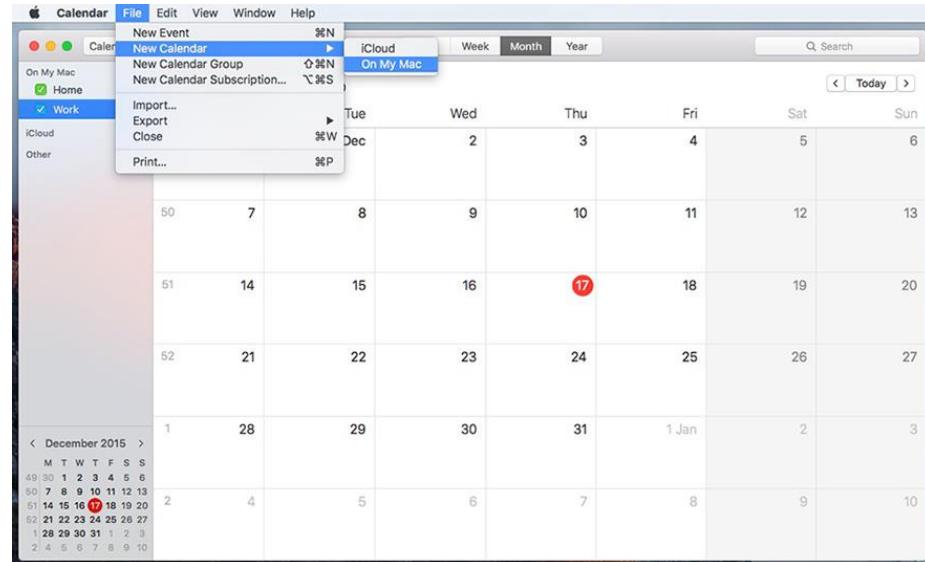
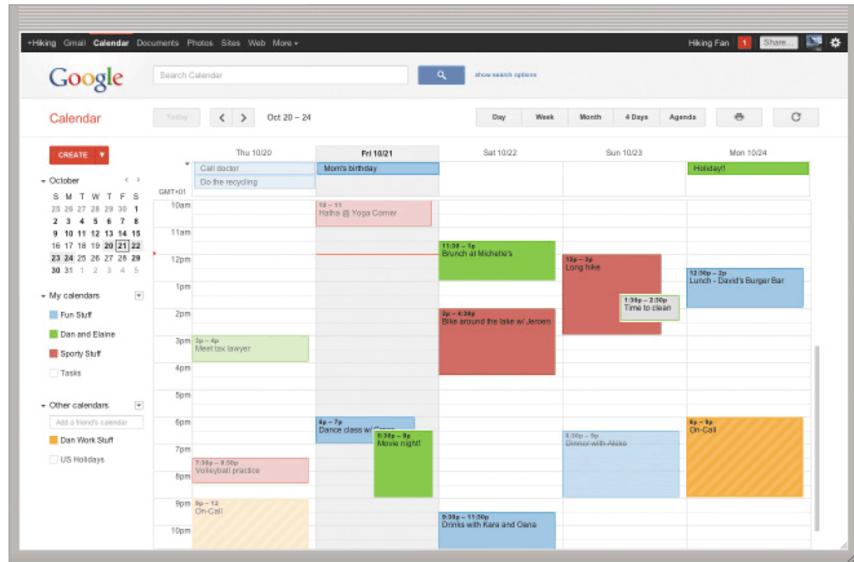
A Microsoft OneNote page titled 'SADDLE INVENTORY'. The table lists three saddle products: 1. 'CONTOSO X Series Leather' (Sku No. 123 456, \$ 114.99) with a note 'TOP RECOMMENDATION' and arrows pointing to it from handwritten text 'Please order more!'. 2. 'Proseware Road Leather' (Sku No. 123 457, \$ 87.99) with a circled '5' and a crossed-out note '716-856-8055'. 3. 'LITWARE Yellow Leather' (Sku No. 123 458, \$ 87.99) with a circled '20' and the note 'Look for new supplier'. The table also includes columns for 'NAME / SKU / PRICE', 'QTY', and 'SUPPLIER'.

Microsoft OneNote

4.6 Calendar and Contact Management

- **Calendar and contact management software** is an application that helps you organize your calendar, keep track of contacts, and share this information with other users, who can view it on their computers and mobile devices.
- This software provides a way for individuals and workgroups to organize, find, view, and share appointment and contact information easily.

4.6 Calendar and Contact Management



4.7 Software Suite

Software Suite
ສູ່ລວມງານສະໝັກໂລຢີຕົວ

- A **software suite** is a collection of individual related applications available together as a unit. Productivity software suites typically include, at a minimum, word processing, presentation, spreadsheet, and email applications.
- Currently, Microsoft office is very popular example of software suite being used.



4.7 Software Suite



Creative Cloud

 Photography Edit or organize my photos	 Video Create and edit video or audio	 Graphic design Design layouts or websites	 Illustration Paint, draw, or create illustrations	 PDFs Create, edit, or sign PDFs	 3D/AR Model, texture, and render 3D assets and scenes
--	--	---	---	---	---

Acrobat DC



Adobe Aero



After Effects



Animate



Audition



Bridge



Capture



Character Animator



Comp



Dimension



Dreamweaver



Fresco



Fuse



Illustrator



InCopy



InDesign



Lightroom



Lightroom Classic



Media Encoder



Photoshop



Photoshop Fix



Premiere Pro



Premiere Rush



Spark



Substance



XD



4.8 Project Management

- **Project management software** is an application that allows a user to plan, schedule, track, and analyze the events, resources, and costs of a project.
- Project management software helps users manage project variables, allowing them to complete a project on time and within budget.

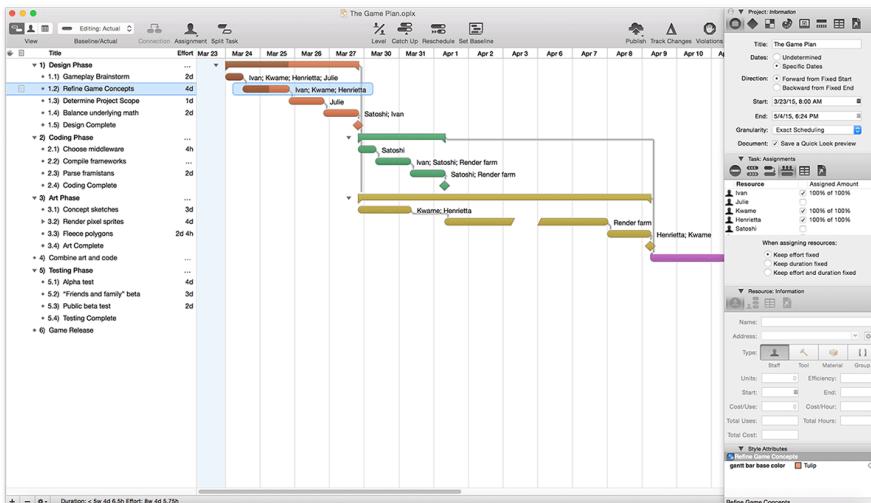
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4.8 Project Management

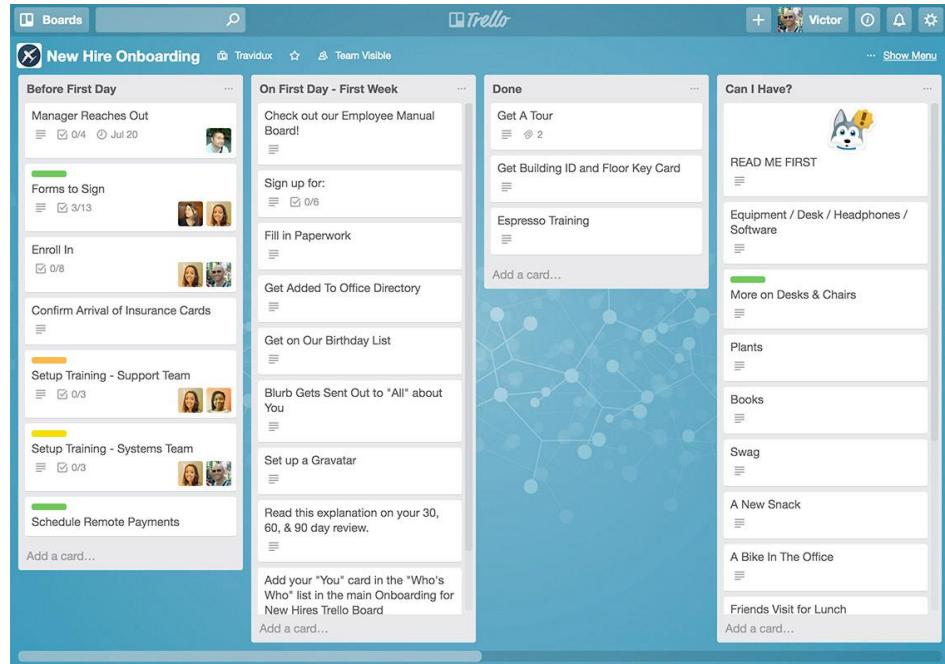
To manage a project using project management software, follow these steps:

- 1. Make sure you understand the project in its entirety**, as well as the steps you must take to bring the project to completion.
- 2. Determine the date** by which the project must be completed.
- 3. Verify you have the appropriate resources** (people and materials) **to complete the project**. If you do not have the necessary resources, you should obtain them.
- 4. Determine the order of the steps** that must be taken to bring the project to completion. Identify steps that must be taken before other steps, as well as steps that can be completed at the same time as other steps.
 ความเป็นไปได้
- 5. Verify the feasibility** of the plan.
- 6. During the project, it will be necessary to update the progress and possibly adjust dates.** Changes to the project and its dates should be communicated to the entire project team.

4.9 Project Management



Microsoft Project

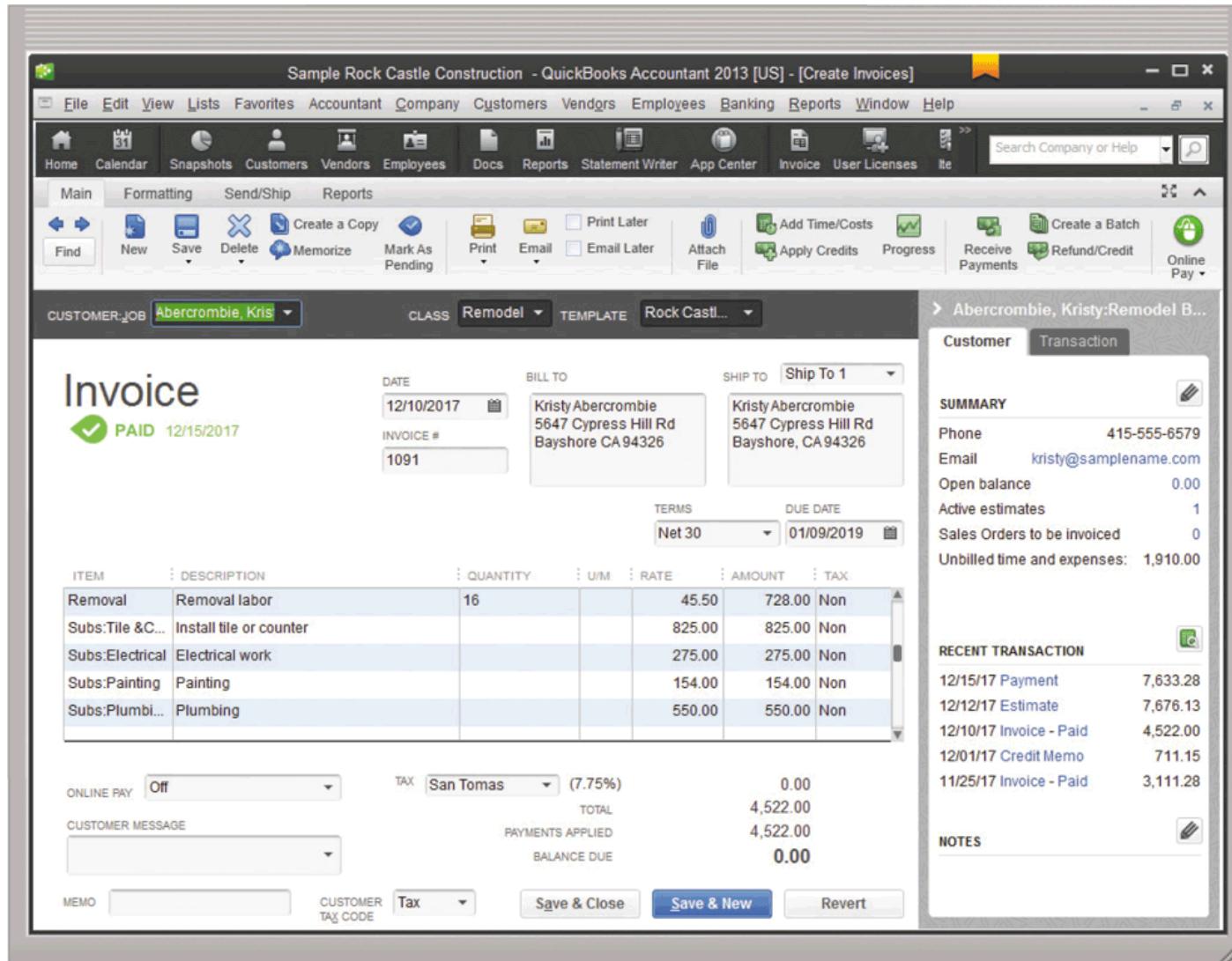


4.9 Accounting

- **Accounting software** is an application that helps businesses of all sizes record and report their financial transactions. With accounting software, business users perform accounting activities related to the general ledger, accounts receivable, accounts payable, purchasing, invoicing, and payroll functions.
- กระทำ
บัญชีแยกประเภท
ใบสั่งซื้อ
- เงินเดือน
การซื้อ

- Most accounting software supports online credit checks, bill payment, direct deposit, and payroll services.

4.9 Accounting



The screenshot shows the QuickBooks Accountant 2013 [US] application window titled "Create Invoices". The menu bar includes File, Edit, View, Lists, Favorites, Accountant, Company, Customers, Vendors, Employees, Banking, Reports, Window, and Help. The toolbar contains icons for Home, Calendar, Snapshots, Customers, Vendors, Employees, Docs, Reports, Statement Writer, App Center, Invoice, User Licenses, and It. The main menu bar has Main, Formatting, Send/Ship, and Reports selected. Below the toolbar, there are buttons for Find, New, Save, Delete, Memorize, Print, Email, Attach File, Add Time/Costs, Apply Credits, Progress, Receive Payments, Create a Batch, Refund/Credit, and Online Pay.

The customer dropdown shows "Abercrombie, Kris". The class is set to "Remodel" and the template is "Rock Castl...". The invoice date is 12/10/2017, and the invoice number is 1091. The bill to and ship to addresses are both "Kristy Abercrombie, 5647 Cypress Hill Rd, Bayshore CA 94326". The terms are Net 30, and the due date is 01/09/2019. The item list includes Removal labor, Install tile or counter, Electrical work, Painting, and Plumbing. The total amount is 4,522.00, and the balance due is 0.00.

The right panel displays the customer summary for Kristy Abercrombie, including phone (415-555-6579), email (kristy@samplename.com), open balance (0.00), active estimates (1), sales orders to be invoiced (0), and unbilled time and expenses (1,910.00). It also shows recent transactions: 12/15/17 Payment (7,633.28), 12/12/17 Estimate (7,676.13), 12/10/17 Invoice - Paid (4,522.00), 12/01/17 Credit Memo (711.15), and 11/25/17 Invoice - Paid (3,111.28). A notes section at the bottom right is empty.

4.10 Personal Finance

- **Personal finance** software is a simplified accounting application that helps home users and small/home office users balance their checkbooks, pay bills, track personal income and expenses, verify account balances, transfer funds, track investments, and evaluate financial plans.

ประเมิน

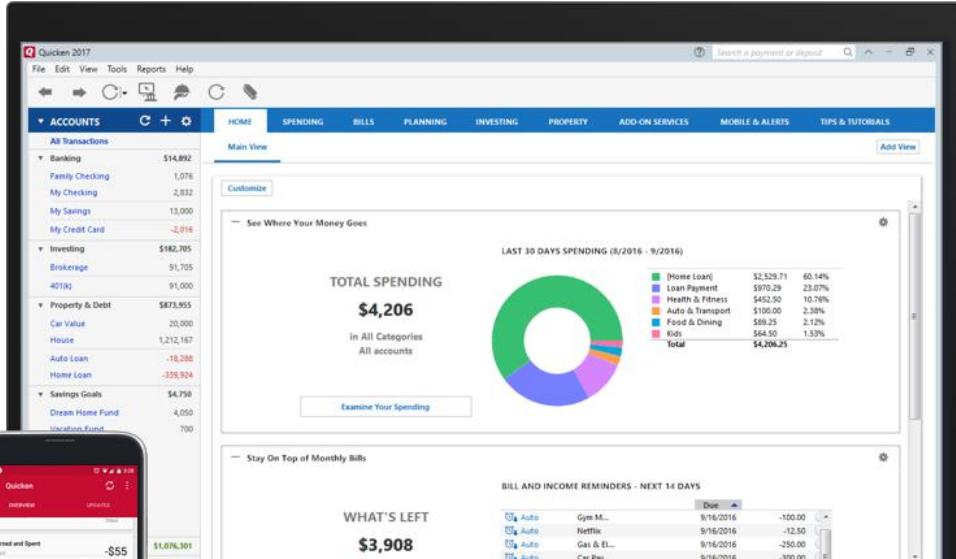
- Personal finance software helps determine where, and for what purpose, you are spending money so that you can manage your finances.

4.10 Personal Finance

The screenshot shows the Microsoft Money software interface. On the left, there's a sidebar with various menu items like 'Money Plus', 'Bills Summary', 'Budget Summary', and 'Reports Home'. The main area is titled 'My Money' and shows a pie chart of spending by category. It includes sections for 'Account List', 'Spending Tracker', and 'Headlines from MSN Money'.



Microsoft Money



Quicken®

4.11 Legal

- **Legal software** is an application that assists in the preparation of legal documents and provides legal information to individuals, families, and small businesses.

ແຕລະບຸຄຄລ

- Legal software provides standard contracts and documents associated with buying, selling, and renting property; estate planning; marriage and divorce; and preparing a will or living trust.

ກວ້າພຍສືນ

ກວ້າພຍສືນທີ່ດິນ

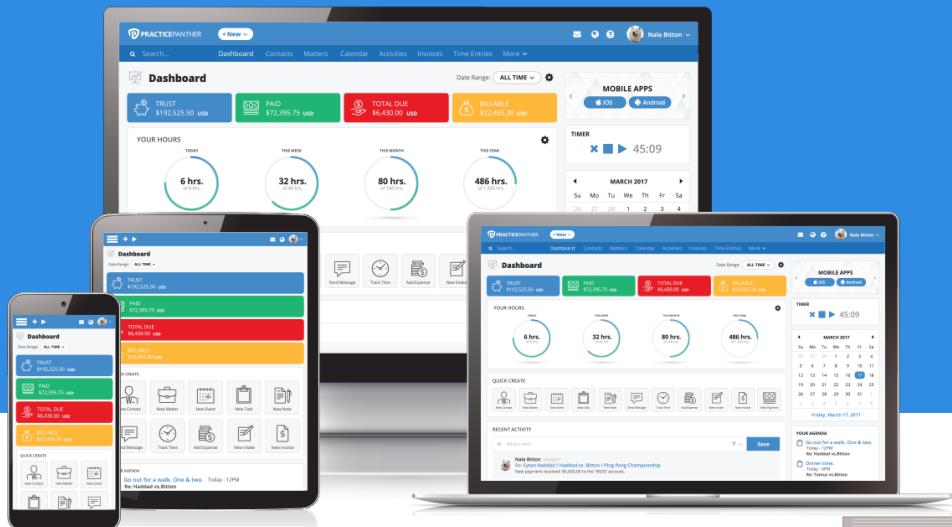
ພິນຍກຮມ

ຜູ້ຈັດກາຣກວ້າພຍສືນ

4.11 Legal

វគ្គសារនៃការគ្រប់គ្រងឈរ

Take your practice to the next level with the most
intuitive trust accounting software.



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Google Play

MyAttorney HOME & BUSINESS

Interview: Bill of Sale - Motor Vehicle

What motor vehicle is being sold?

Year _____
Make _____
Model _____
VIN _____

For example, 1990, Toyota, Camry, 289A5436BH5868.

Bill of Sale - Motor Vehicle

The Bill of Sale - Motor Vehicle is a document under which one or more sellers transfer title rights in a motor vehicle to one or more buyers. This document only represents the transfer of the RIGHT to ownership; the motor vehicle's certificate of title represents ACTUAL ownership. Thus, this document and the certificate of title are needed to complete the transfer of the motor vehicle.

The Bill of Sales - Motor Vehicle should be signed by the seller(s), and becomes effective as of the date provided in the text of the document. The buyer(s) should sign the Bill of Sale - Motor Vehicle immediately below the odometer statement in the document. The buyer(s) should also

BILL OF SALE - MOTOR VEHICLE

For the consideration of \$5,250.00, Sara Albertson (the "Seller"), of 2887 Fourth Place, Harrington, Indiana 46322, does hereby sell, assign and transfer to Jesse Martinez (the "Buyer"), of 7761 Cedar Road, Riverton, Indiana 46323, the following described motor vehicle (the

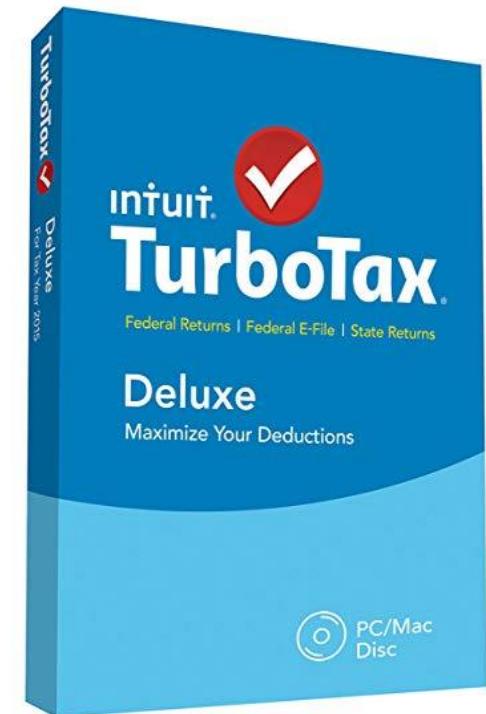
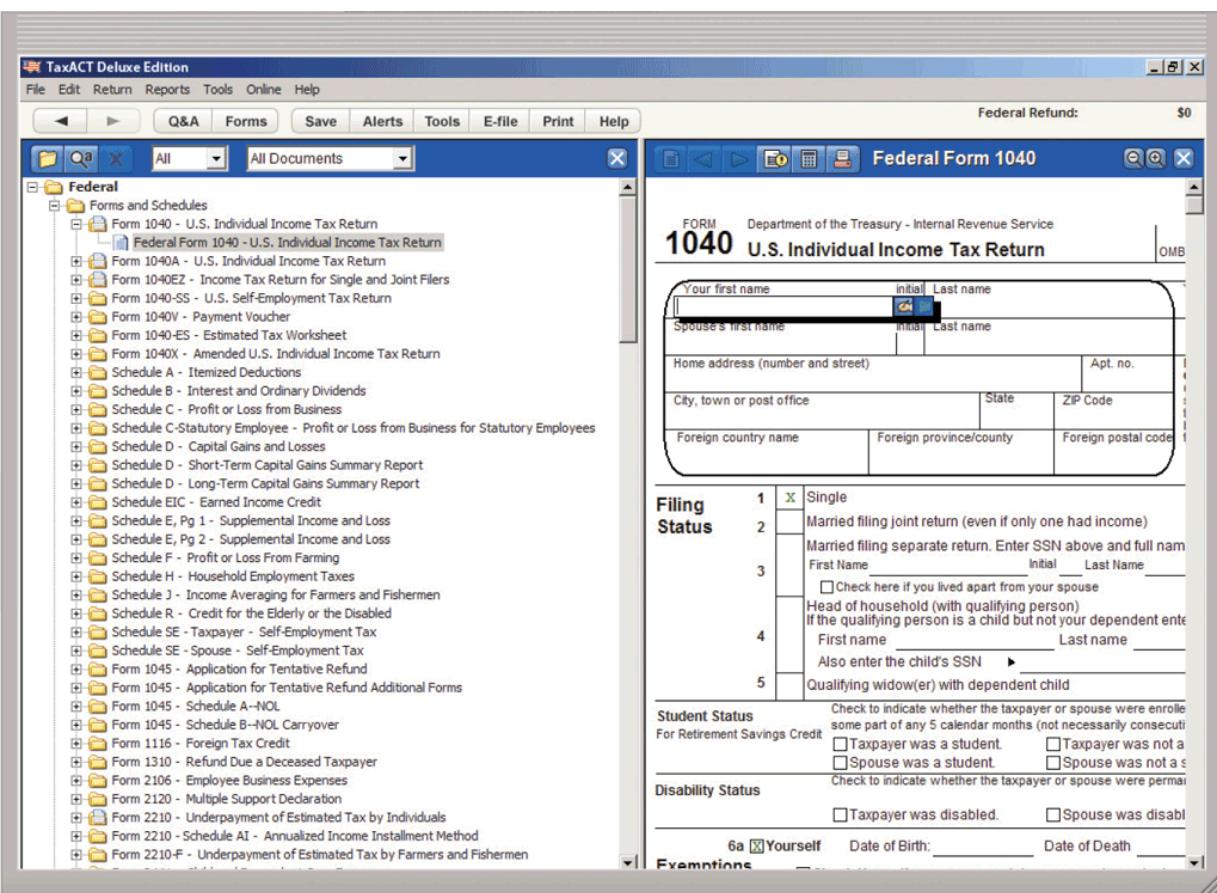
4.12 Tax Preparation

- **Tax preparation** ແຕ່ລະບຸຄຄລ software is an application that can guide individuals, families, or small businesses through the process of filing federal and state taxes.

ສຫພັນອວັຈີ,

- These programs forecast tax liability and offer money-saving tax tips, designed to lower your tax bill.
- After you answer a series of questions and complete basic forms, the software creates and analyzes your tax forms to search for missed potential errors and deduction opportunities.

4.12 Tax Preparation



TaxAct®

4.13 Document Management

- **Document management** software is an application that provides a means for sharing, distributing, and searching through documents by converting them into a format that can be viewed by any user. ຈົດການ ຂອດກົດ, ອໍາລັບ
- The converted document, which mirrors the original document's appearance, can be viewed and printed without the software that created the original document.
- Some document management software allows users to edit - content and add comments to the converted document.
- A popular electronic image file format that document management software uses to save converted documents is **PDF (Portable Document Format)**, developed by Adobe Systems. PDF

4.13 Document Management

The screenshot shows the LogicalDOC Document Management System interface. On the left is a tree view of folders, including 'ID', 'My_Junk', 'New folder', 'New folder(1)', 'Progetti', 'Test DW' (with 'Nueva carpeta'), 'acme' (with 'projects' and 'galaxy'), 'roberto test', 'rsi', 'savoca', 'test', and 'testing'. In the center, a grid displays five documents: 'Project Galaxy - Presentation' (pptx), 'Project Galaxy - Charter' (doc), 'Project Galaxy - Communication Plan' (xls), 'Project Galaxy - Marketing collaterals' (doc), and 'Project Galaxy Budget' (xls). Below the grid is a properties panel for the selected document, showing details like ID: 149, Title: 'Project Galaxy - Presentation', Version: 1.1, File name: '1- Processi.pptx', Size: 139 KB, and creation/publishing dates/times.



eFileCabinet



The screenshot shows the eFileCabinet interface. On the left, a navigation sidebar includes links for Home, Business Development, Enterprise Sales, HR, IT, and Marketing. Under Marketing, there are sub-folders for '_Marketing Share' (with 'Ethan Mercer' and 'Public') and 'Team Only' (with 'Austin Hesterly', 'Bill Reynolds', 'Christina Perry', 'Darcie Wilde', 'Data.com Lists', and 'Dot Michaels'). The main content area shows a file list for 'Dot Michaels' (6 items) and a detailed view of an 'Invoice-BusinessCenter.pdf' document. The invoice header includes 'COMPANY NAME', 'Invoice To', and 'Invoice Date'. The body of the invoice lists services: 'Photographer' (\$55.00), 'Transport' (\$70.00), 'Set Design, Development & Decor' (\$80.00), and 'Branding' (\$120.00). The total amount is \$325.00, with a discount of -\$16.25, resulting in a Grand Total of \$308.75.

4.14 Enterprise Computing

- A large organization, commonly referred to as an enterprise, requires special computing solutions because of its size and geographic distribution.
- A typical enterprise consists of a wide variety of departments, centers, and divisions — collectively known as functional units.

Human resources software

Accounting software

Engineering or product development software

Manufacturing software

Marketing software

Sales software

Distribution software

Customer service software

Software for information technology staff

5. Graphics and Media Applications

5.1 Computer-aided design (CAD) software is a type of application that assists professionals and designers in creating engineering, architectural, and scientific designs and models. Three-dimensional CAD programs allow designers to rotate designs of 3-D objects to view them from any angle.

① පැවත්වනු ලබන
සියලුම ප්‍රධාන සාකච්ඡා

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5.2 Desktop Publishing

- **Desktop publishing software** (DTP software) is an application that enables designers to create sophisticated publications that contain text, graphics, and many colors. ประสมการณ์มาก, เจนใจ
- Professional DTP software is ideal for the production of high-quality color projects such as textbooks, corporate newsletters, marketing literature, product catalogs, and annual reports.
- Designers and graphic artists can print finished publications on a color printer, take them to a professional printer, or post them on the web in a format that can be viewed by those without DTP software.

5.2 Desktop Publishing



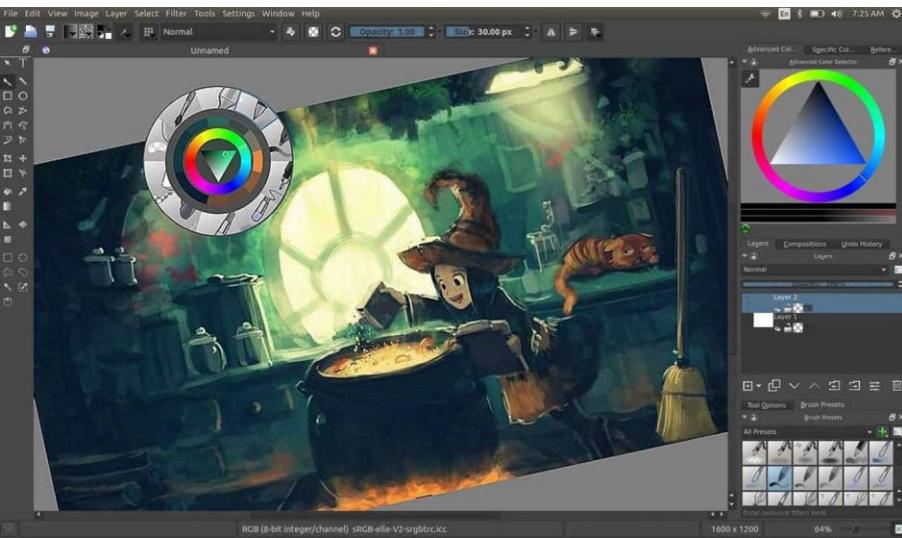
A screenshot of the Adobe InDesign CC 2018 software interface. The main workspace shows a two-page spread of a brochure titled 'brochure_intro.indd @ 96%'. The left page features a photograph of a person holding a camera, with a text box overlaid containing descriptive text about the Roux Academy. The right page has a dark background with a large graphic design logo at the top, followed by the text 'GRAPHIC DESIGN AT ROUX' and the academy's logo at the bottom. The InDesign interface includes various toolbars and panels on the left and right sides, such as the 'Pages' panel, 'Layers' panel, and 'Color' panel. The status bar at the bottom indicates 'No errors'.

5.3 Paint/Image Editing

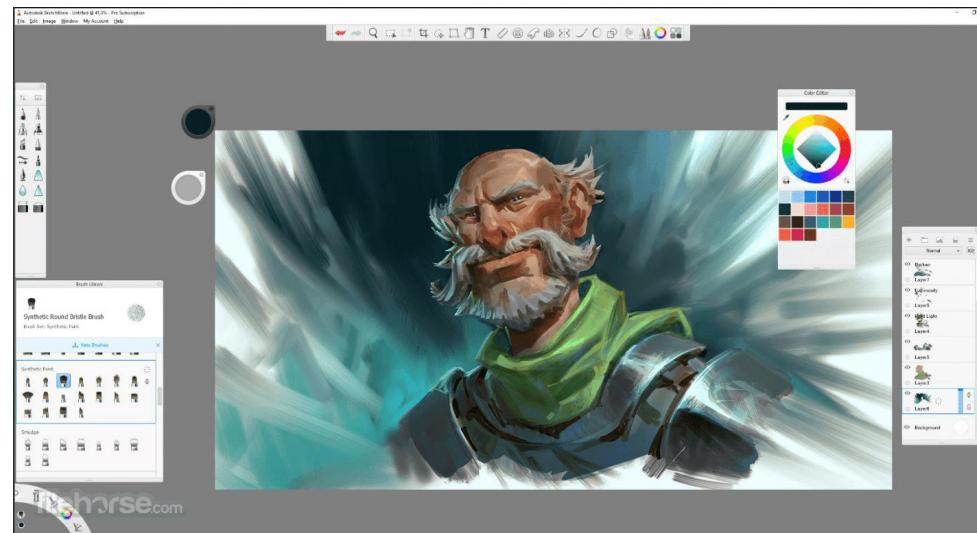
- **Paint software**, also called **illustration software**, is an application that allows users to draw pictures, shapes, and other graphics with various on-screen tools, such as a pen, brush, eyedropper, and paint bucket.
- **Image editing** software is an application that provides the capabilities of paint software and also includes the capability to enhance and modify existing photos and images.
- Modifications can include adjusting or enhancing image colors, adding special effects such as shadows and glows, creating animations, and image stitching (combining multiple images into a larger image).

5.3 Paint/Image Editing

Microsoft Paint



Autodesk Sketchbook



5.4 Photo Editing and Photo Management

- **Photo editing software** is a type of image editing software that allows users to edit and customize digital photos.
- With photo editing software, users can retouch photos, crop images, remove red-eye, erase blemishes, restore aged photos, add special effects, enhance image quality, change image shapes, color-correct images, straighten images, remove or rearrange objects in a photo, add layers, and more.
การทำให้ดีขึ้น ต่อหน้า
- Many applications also provide a means for creating digital photo albums.

5.4 Photo Editing and Photo Management

ACTION	PURPOSE
<i>Crop</i>	Removes unwanted areas of a photo
<i>Remove red-eye</i>	Removes the appearance of red eyes caused by the camera flash
<i>Resize</i>	Changes the physical dimensions of the photo
<i>Compress</i>	Decreases the photo's file size
<i>Adjust sharpness</i>	Increases or decreases crispness of objects in the photo
<i>Adjust brightness</i>	Adjusts lightness or darkness in the photo
<i>Adjust contrast</i>	Adjusts the difference in appearance between light and dark areas of the photo

5.4 Photo Editing and Photo Management



Adjust sharpness



Adjust contrast

After Adjust contrast to 89 %

5.4 Photo Editing and Photo Management

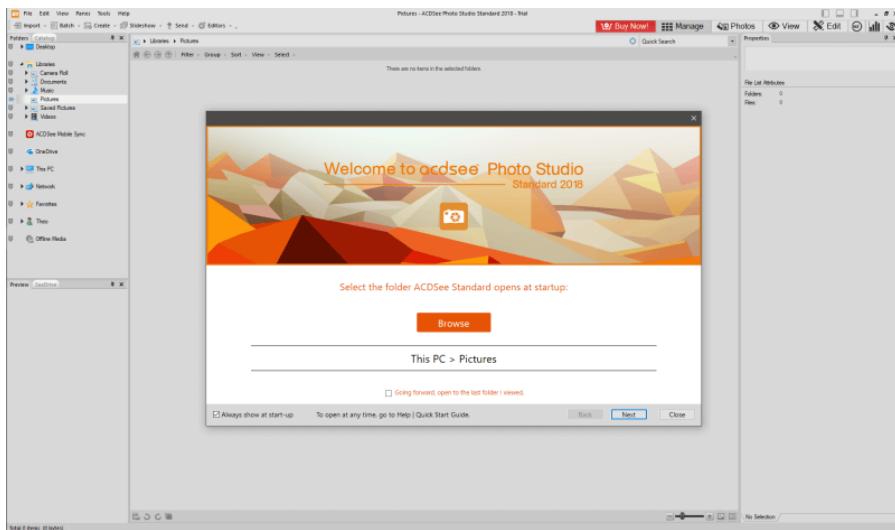


5.4 Photo Editing and Photo Management

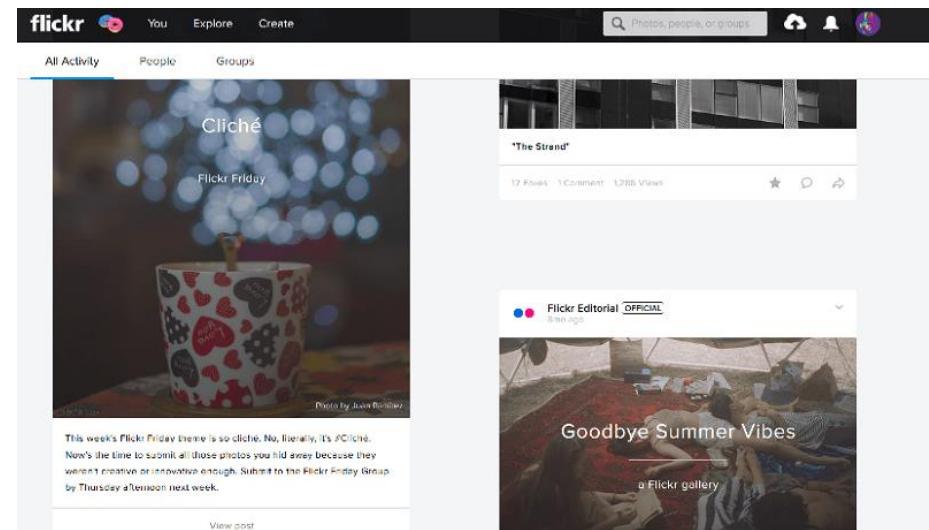
- With **photo management software**, you can view, organize, sort, catalog, print, and share digital photos. Some photo editing software includes photo management functionality.
- Many online photo storage services enable you to create scrapbooks — selecting photos, adding captions, selecting backgrounds, and more.

5.4 Photo Editing and Photo Management

ACDSee Photo Studio Standard 2018



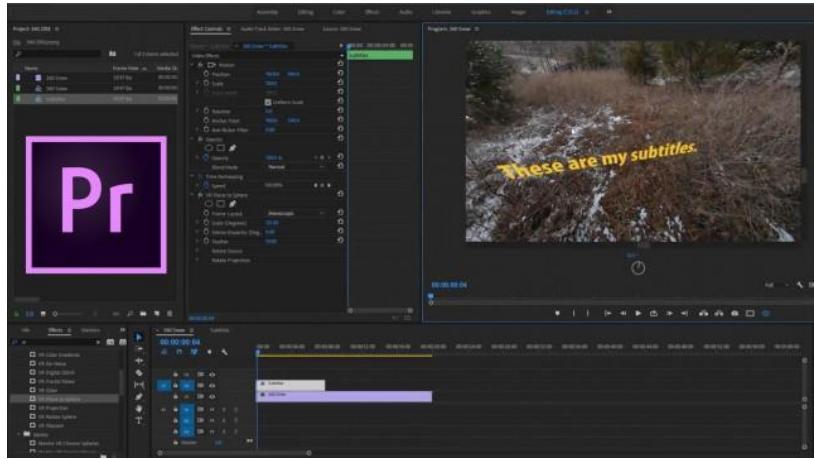
Flickr



5.5 Video and Audio Editing

- **Video editing** software is an application that allows professionals to modify a segment of a video, called a clip. For example, users can reduce the length of a video clip, reorder a series of clips, or add special effects such as words that move across the screen. Video editing software typically includes audio editing capabilities.
- **Audio editing** software is an application that enables users to modify audio clips, produce studio-quality soundtracks, and add audio to video clips.

5.5 Video and Audio Editing



Final Cut



Adobe Premiere Pro



Vegas Pro

5.6 Multimedia and Website Authoring

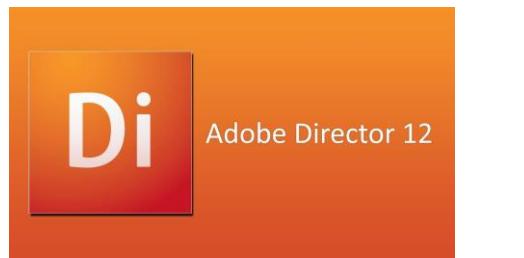
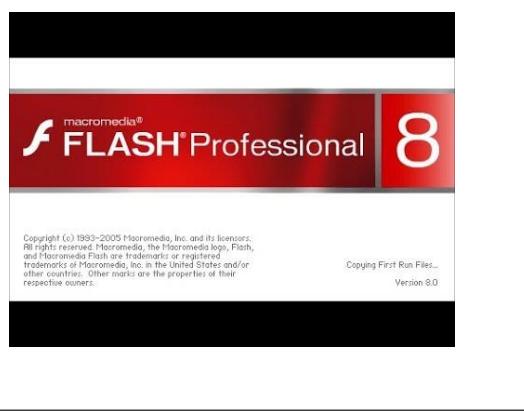
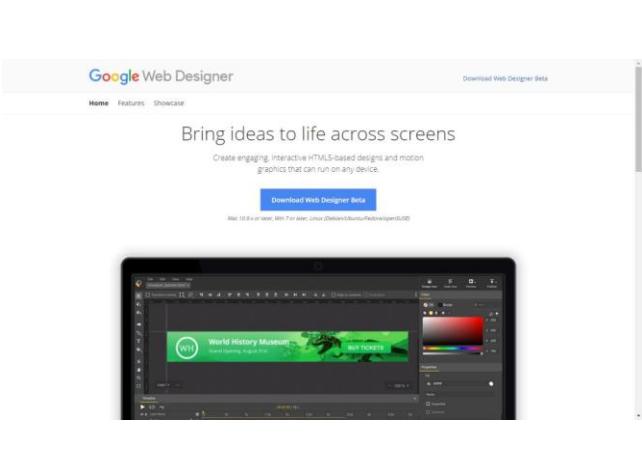
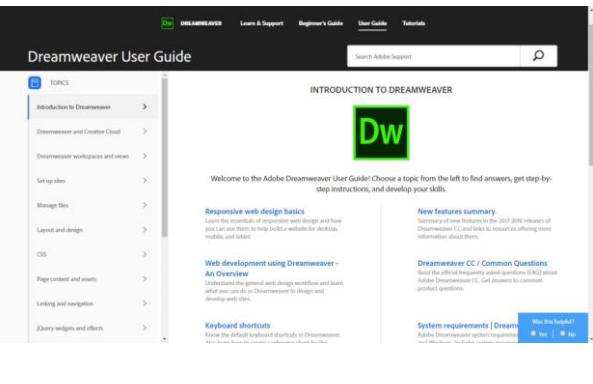
ซอฟต์แวร์สำหรับสร้างสื่อมัลติมีเดีย

- **Multimedia authoring software** allows users to combine text, graphics, audio, video, and animation in an interactive application. With this software, users control the placement of text and images and the duration of sounds, video, and animation.

ซอฟต์แวร์สำหรับสร้างเว็บไซต์

- **Website authoring software** helps users of all skill levels create related webpages that include graphics, video, audio, animation, special effects with interactive content, and blog posts. In addition, many website authoring programs allow users to organize, manage, and maintain websites. ex. Adobe Flash

→ ปัจจุบัน HTML5 น่าจะดีกว่า



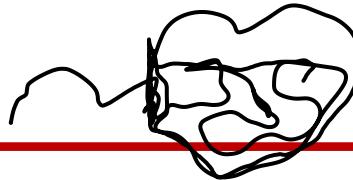
Multimedia and Website Authoring

5.7 Media Player

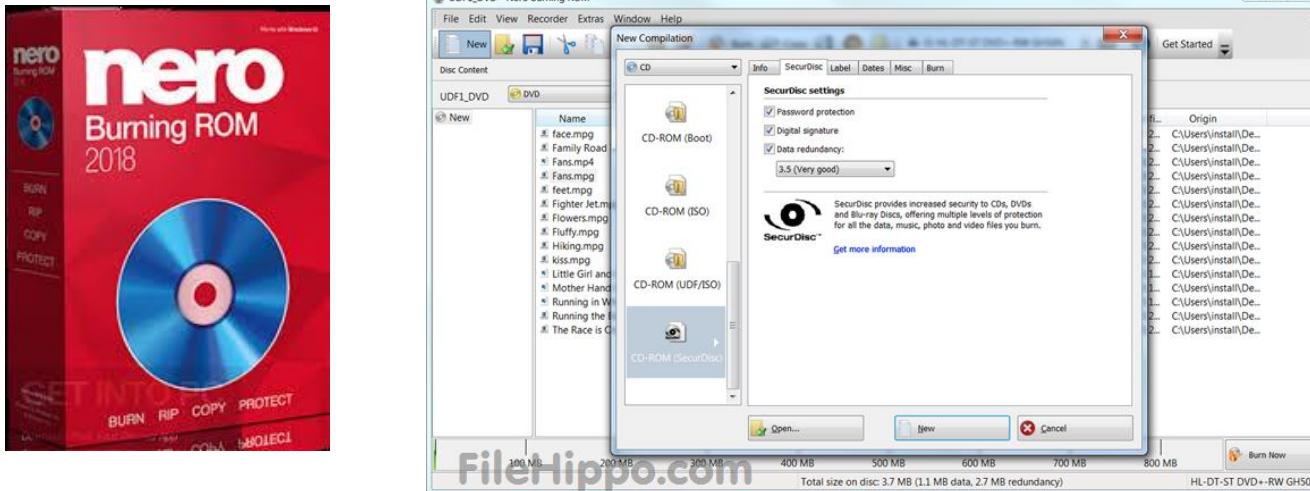
- A **media player** is a program that allows you to view images and animations, listen to audio, and watch video files on your computer or mobile device.
- Media players also may enable you to organize media files by genre, artist, or other category; create playlists; convert files to different formats; connect to and purchase media from an online media store or market-place; stream radio stations' broadcasting over the Internet; download podcasts; burn audio CDs; and transfer media to portable media players.



5.8 Disc Burning



- Disc burning software writes text, graphics, audio, and video files on a recordable or rewritable disc.
- This software enables home users easily to back up contents of their hard drive on an optical disc (CD/DVD) and make duplicates of uncopied music or movies.



6. Personal Interest Applications

Most of the programs in this category are relatively inexpensive; many are free. Some applications focus on a single service, while others provide several services in a single application.

Lifestyle
applications

Medical
applications

Entertainment
applications

Convenience
applications

Education
applications

6. Personal Interest Applications

รูปแบบการดำเนินชีวิต

- **Lifestyle applications:** Access the latest news or sports scores, check the weather forecast, compose music, research genealogy, find recipes, or locate nearby restaurants, gas stations, or points of interest.

อาการของโรค

- **Medical applications:** Research symptoms, establish a fitness or health program, track exercise activity, refill prescriptions, count calories, or monitor sleep patterns.

เติมอีก ใบสั่งยา

- **Entertainment applications:** Listen to music or the radio, view photos, watch videos or shows, read a book or other publication, organize and track fantasy sports teams, and play games individually or with others.

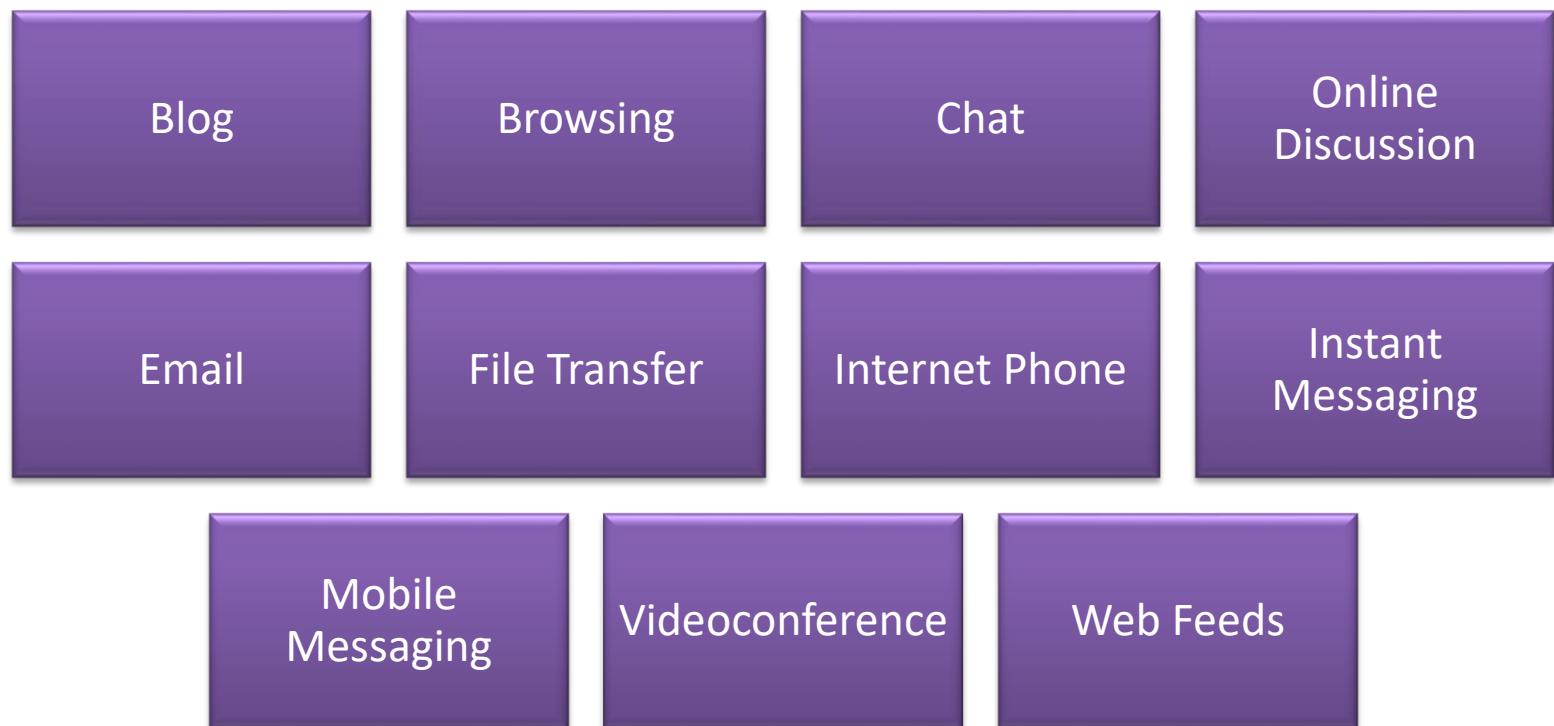
ความสะดวก

- **Convenience applications:** Obtain driving directions or your current location, remotely start your vehicle or unlock/lock the doors, set an alarm or timer, check the time, calculate a tip, use your phone as a flashlight, or use a personal assistant that acts on your voice commands.

- **Education applications:** Access how-to guides, learn or fine-tune a particular skill, follow a tutorial, run a simulation, assist children with reading and other elementary skills, or support academics.

7. Communications Applications

One of the main reasons people use computers is to communicate and share information with others.



7. Communications Applications

- ❑ **Blog** Time-stamped articles, or posts, in diary or journal format, usually listed in reverse chronological order.
ตามลำดับเวลา
- ❑ **Browsing** Allows users to access and view webpages on the Internet
- ❑ **Chat** Real-time, online typed conversation with one or more users
- ❑ **Online Discussion** Online areas where users have written discussions
- ❑ **Email** Messages and files sent via a network, such as the Internet

7. Communications Applications

- **File Transfer** Method of uploading files to and downloading files from servers on the Internet
- **Internet Phone** Allows users to speak to other users via an Internet connection
- **Internet Messaging** Real-time exchange of messages, files, images, audio, and/or video with another online user
- **Mobile Messaging** Short text, picture, or video messages sent and received, mainly on mobile devices
- **Videoconference** Meeting between geographically separated people who use a network to transmit video/audio
- **Web Feeds** Keeps track of changes made to blogs by checking feeds

8. Security Tools

Virus

ความตั้งใจ The programmer of a virus, known as a **virus author**, intentionally writes a virus program. Writing a virus program usually requires significant programming skills. The virus author ensures the virus can replicate itself, conceal itself, monitor for certain events, and then deliver its payload.

The first step in the **infection phase** is activation of the virus. The most common way viruses spread is by users running infected programs or apps.

1. First, a virus replicates by attaching itself to program files.
2. Viruses conceal themselves to avoid detection.
3. Finally, viruses watch for a certain condition or event and activate when that condition or event occurs. *The event might be starting the computer or device, or reaching a date on the system clock.*

8. Security Tools

Virus

ปล่อย

During the **delivery phase**, the virus unleashes its payload, which might be a harmless prank that displays a meaningless message — or it might be **destructive, corrupting or deleting data and files.**

การลักเล่น

ซึ่งเป็นการทำลาย

ทำให้เสื่อม

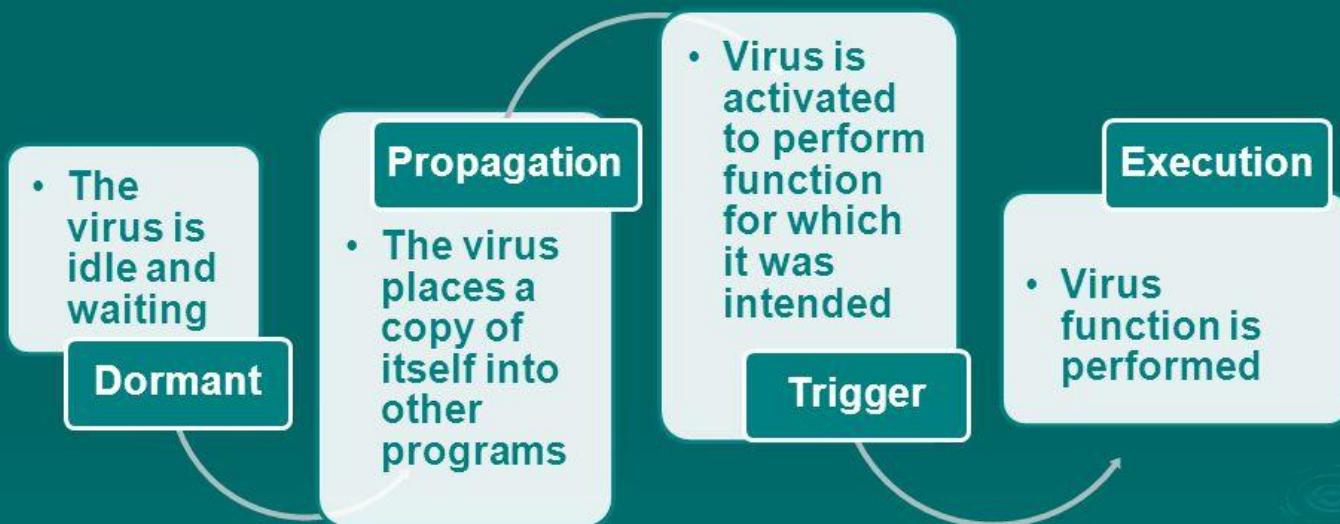
The most dangerous viruses do not have an obvious payload. Instead, they quietly modify files.

อย่างเห็นชัด

One way antivirus software detects computer viruses is by monitoring files for unknown changes.

8. Security Tools

Virus Lifecycle



8. Security Tools

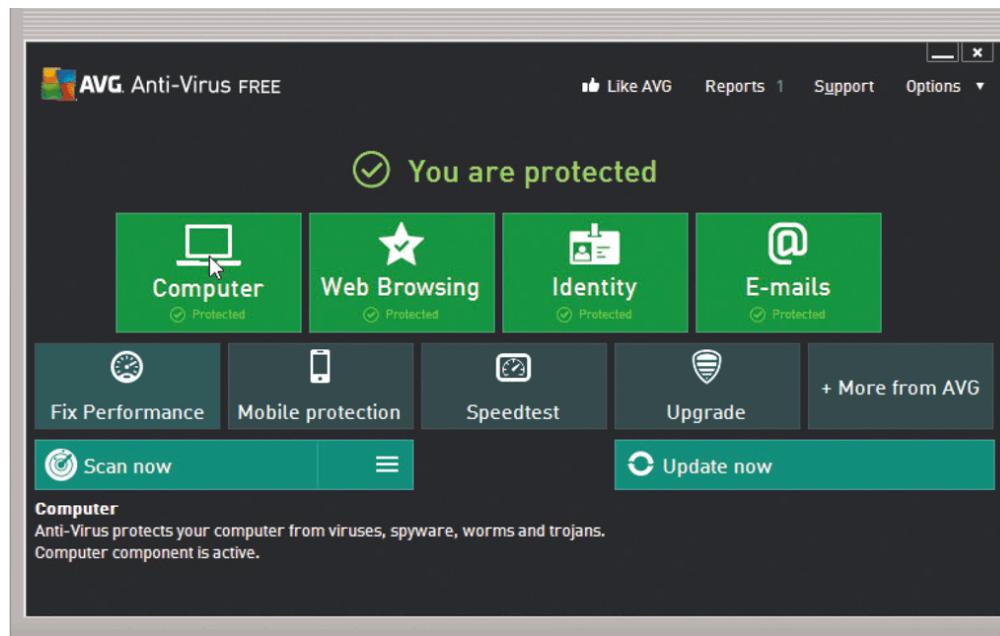
- In addition to viruses, other malware includes worms, trojan horse programs, and rootkits.
- **A worm** resides in active memory and replicates itself over a network to infect computers and devices, using up system resources and possibly shutting down the system.

การปลอมแปลง

- **A trojan horse** is a destructive program disguised as a real program, such as a screen saver. When a user runs a seemingly innocent program, a trojan horse hiding inside can capture information, such as user names and passwords, from your computer or enable someone to control your computer remotely. Unlike viruses, trojan horses do not replicate themselves.
- **A rootkit** is a program that easily can hide and allow someone to take full control of your computer from a remote location, often for nefarious **อป่องเจวร้าย** purposes. For example, a rootkit can hide in a folder on your computer. The folder appears empty because the rootkit has instructed your computer not to display the contents of the folder. Rootkits can be very dangerous and often require special software to detect and remove.

8.1 Antivirus program

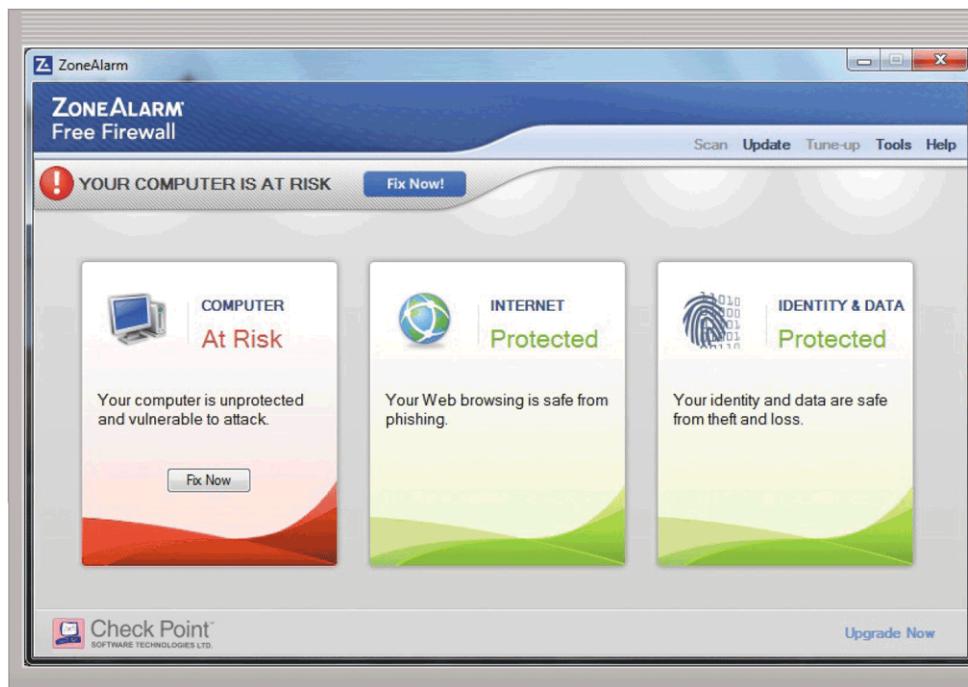
- An **antivirus program** protects a computer against viruses by identifying and removing any computer viruses found in memory, on storage media, or on incoming files



8.2 Personal firewall

- A **personal firewall** is a security tool that detects and protects a personal computer and its data from unauthorized intrusions

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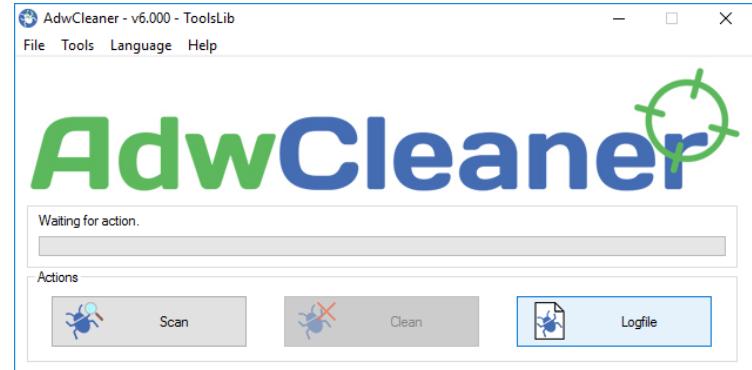
8.3 Spyware & Adware

- **Spyware** is a type of program placed on a computer or mobile device without the user's knowledge that secretly collects information about the user and then communicates the information it collects to some outside source while the user is online
- **Adware** is a type of program that displays an online advertisement in a banner or pop-up or pop-under window on webpages, email messages, or other Internet services

8.3 Spyware & Adware

A **spyware remover** is a type of program that detects and deletes spyware and similar programs

An **adware remover** is a program that detects and deletes adware



8.4 Internet filter

- Filters are programs that remove or block certain items from being displayed.

**Anti-spam
programs**

**Web filtering
software**

**Phishing
filters**

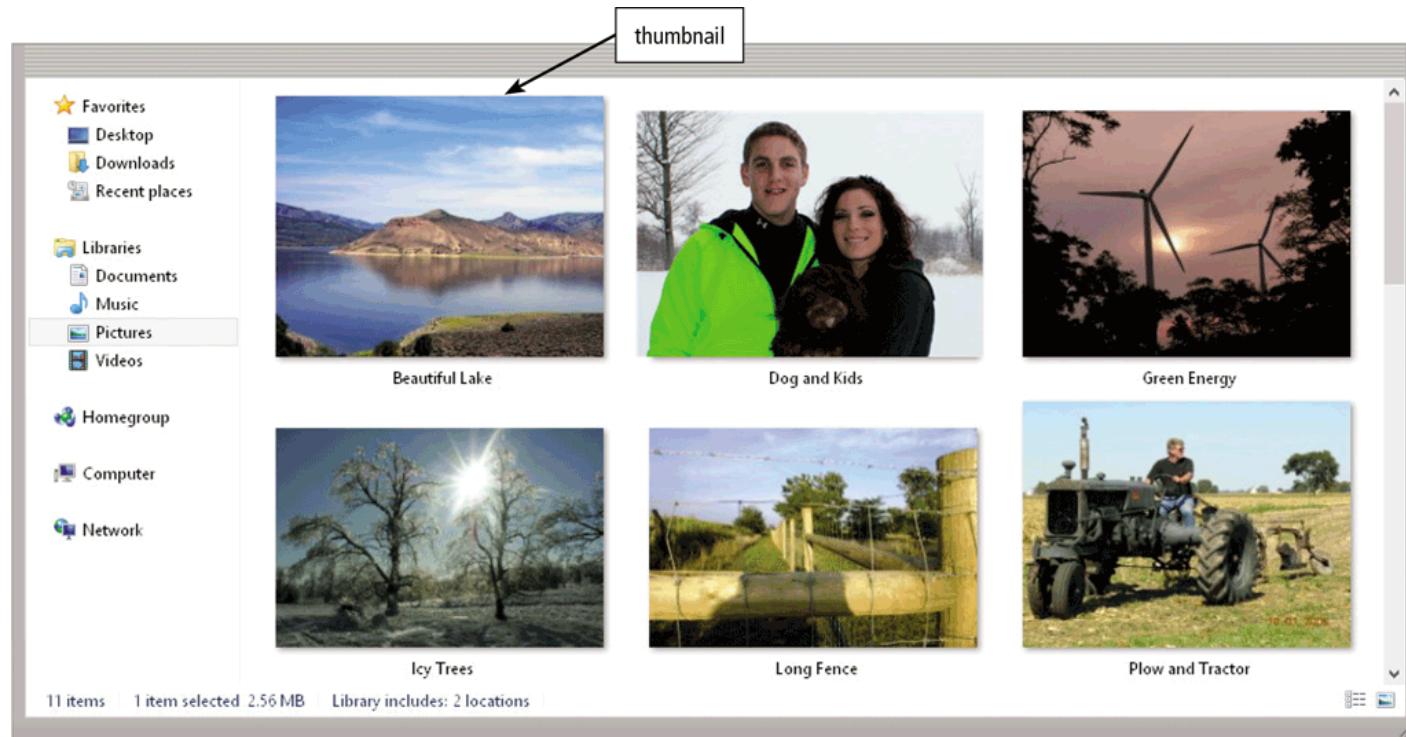
**Pop-up and
pop-under
blockers**

8.4 Internet filter

- **Anti-Spam Programs** Spam is an unsolicited email message or posting sent to many recipients or forums at once.
ໄນ້ໄດ້ເຮືອກຈັດ
- **Web Filters** Web filtering software is a program that restricts access to certain material on the web.
- **Phishing Filters** Phishing is a scam in which a perpetrator sends an official looking email message that attempts to obtain your personal and/or financial information. ເພີ່ມຂະໜາດໃຫຍ່
ເລີ່ມຕົ້ນໄວ້ໃຫຍ່
ຈົດໜູ້ໃຫຍ່
ເສົາເຈີ້ມູ່ສິ້ນ
ກຳນົດເຫັນ
- **Pop-Up and Pop-Under Blockers** A pop-up ad is an Internet advertisement that suddenly appears in a new window on top of a webpage.
ຫວັງແຈ້ງ
ໃຫຍ່

9. File, Disk, and System Management Tools

- A **file manager** is a tool that performs functions related to file management



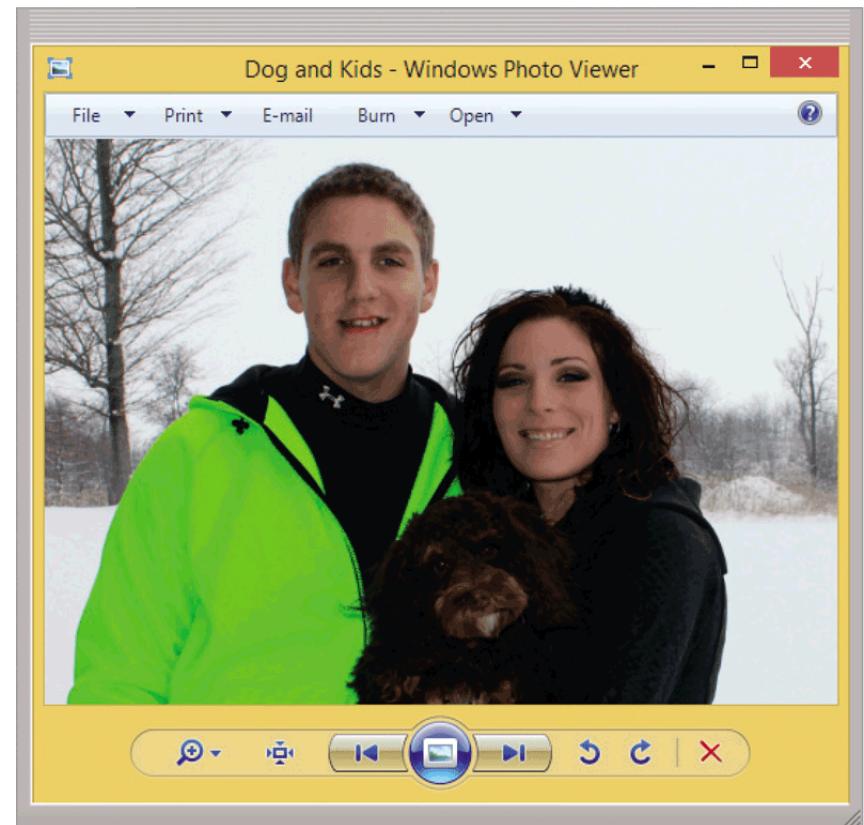
9. File, Disk, and System Management Tools

- A **search tool** is a program, usually included with an operating system, that attempts to locate a file, contact, calendar event, app, or any other item stored on your computer or mobile device based on criteria you specify



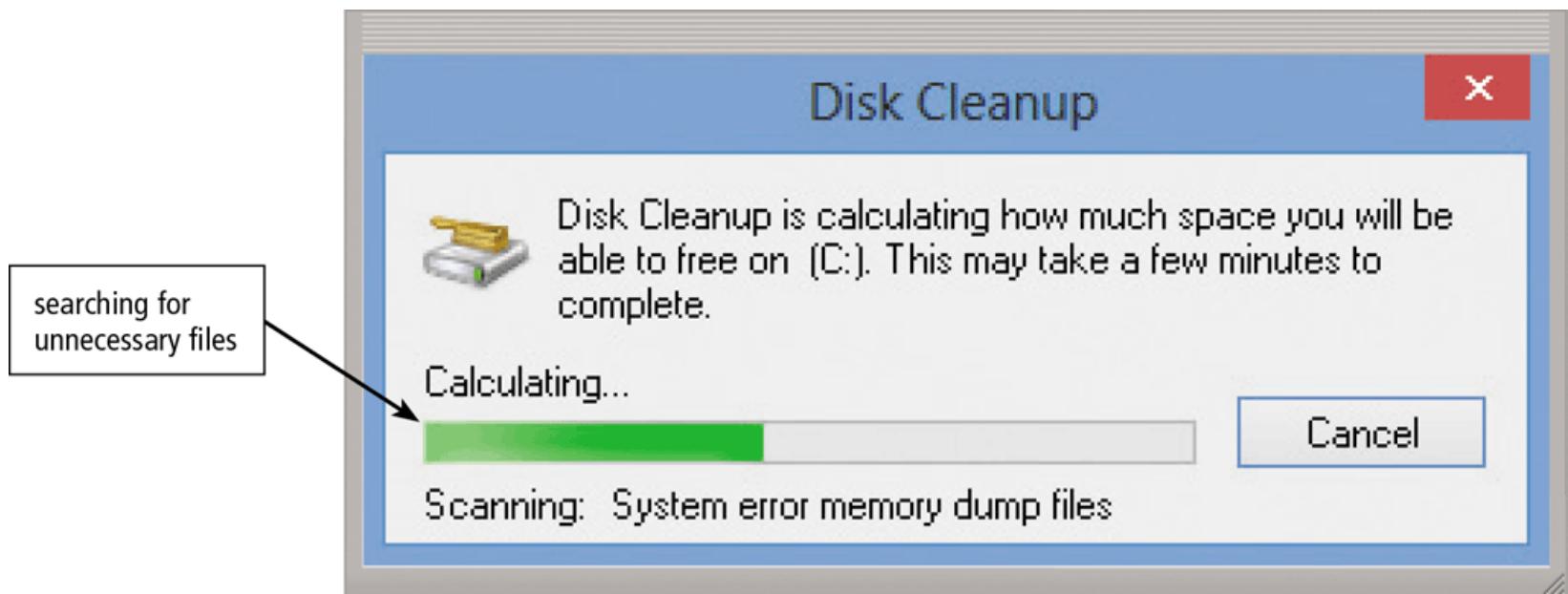
9. File, Disk, and System Management Tools

- An **image viewer** is a tool that allows users to display, copy, and print the contents of a graphics file, such as a photo
- An **uninstaller** is a tool that removes a program, as well as any associated entries in the system files



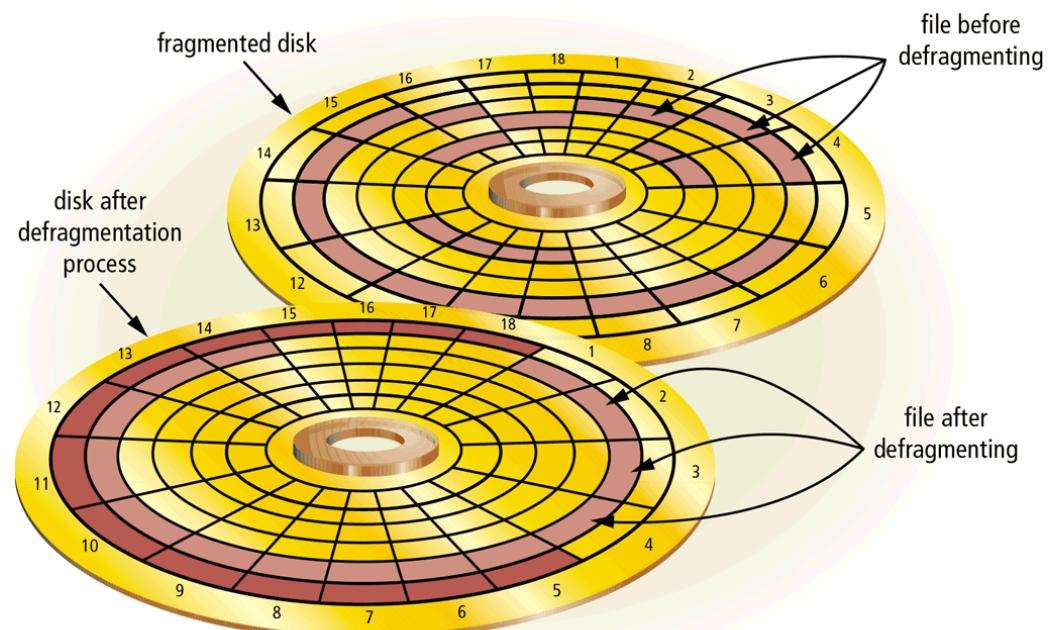
9. File, Disk, and System Management Tools

- A **disk cleanup** tool searches for and removes unnecessary files



9. File, Disk, and System Management Tools

- A **disk defragmenter** is a tool that reorganizes the files and unused space on a computer's hard disk so that the operating system accesses data more quickly and programs run faster
 - Defragmenting



9. File, Disk, and System Management Tools

A **screen saver** is a tool that causes a display device's screen to show a moving image or blank screen if no keyboard or mouse activity occurs for a specified time

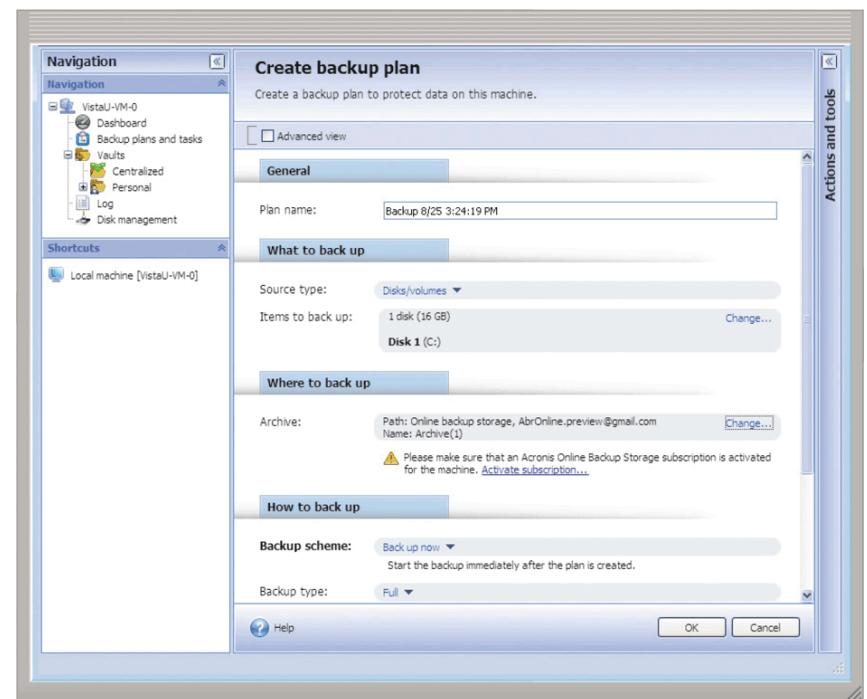
ఫోల్యం సెర్వర్ మెన్జిస్ట్

A **file compression tool** shrinks the size of a file(s)

A **PC maintenance tool** is a program that identifies and fixes operating system problems, detects and repairs drive problems, and includes the capability of improving a computer's performance

9. File, Disk, and System Management Tools

- A **backup tool** allows users to copy, or back up, selected files or the contents of an entire storage medium to another storage location
- A **restore tool** reverses the process and returns backed up files to their original form



Any Question ?

