Al-Mustaqal University Collage of Pharmacy



Computer - S1

Lecture 3 Computer Software Part 1

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Types of Application & System

Computer Software

Software

Application

Software

Performs Information Processing Tasks for End Users Manages and Supports
Operations of Computer
Systems and Networks

General-Purpose Application Programs

- Software Suites
- Web Browsers
- Electronic Mail
- Word Processing
- Spreadsheets
- Database Managers
- Presentation Graphics
- Personal Information Managers
- Groupware

Application-Specific Programs

- Business–Accounting, Transaction Processing, Customer Relationship Management, Enterprise Resource Planning, Electronic Commerce, etc.
- Science and Engineering
- Education, Entertainment, etc.

System Management Programs

- Operating Systems
- Network Management Programs
- Database Management Systems
- Application Servers
- System Utilities
- Performance and Security Monitors

System Development Programs

System

Software

- Programming Language Translators
- Programming Editors and Tools
- Computer-Aided Software Engineering (CASE) Packages

Chapter 4 Computer Software



Application Software

- General Purpose
 - □ Programs that perform common information processing jobs for end users; e.g., word processing, spreadsheet
 - □ Also called productivity packages
- Custom Software
 - □ Software applications developed within an organization for use by that organization
- Commercial Off-the-Shelf (COTS)
 - ☐ Many copies sold
 - Minimal changes beyond scheduled upgrades
 - Purchasers have no control over specifications, schedule, or evolution, and no access to source code or internal documentation
 - Product vendor retains the intellectual property rights of the software



Application Software

- Open-source Software
 - Developers collaborate on the development of an application using programming standards which allow anyone to contribute to the software
 - □ As each developer completes a project, the application code becomes available and free to anyone who wants it



Business Application Software

- Function-Specific Application Software
 - □ Thousands of these packages support specific applications of end users
 - Examples: customer relationship management, enterprise resource planning, supply chain management, Web-enabled electronic commerce

Software Suites, Integrated Packages

- Most widely used productivity packages are bundled together as software suites
- Advantages
 - Cost less than buying individual packages
 - □ All have similar GUI
 - Work well together
- Disadvantages
 - All features not used
 - □ Takes a lot of disk space (bloatware)



Components of Top Software Suites

Programs	Microsoft Office	Lotus SmartSuite	Corel WordPerfect Office	Sun StarOffice
Word Processor	Word	WordPro	WordPerfect	Writer
Spreadsheet	Excel	1-2-3	Quattro Pro	Calc
Presentation Graphics	PowerPoint	Freelance	Presentations	Impress
Database Manager	Access	Approach	Paradox	Base
Personal Information Manager	Outlook	Organizer	Corel Central	Schedule



Integrated Packages

- Integrated packages combine the functions of several programs into one package
 - □ E.g., Microsoft Works, AppleWorks
- Advantages
 - Many functions for lower price
 - □ Uses less disk space
 - □ Frequently pre-installed on microcomputers
- Disadvantages
 - Limited functionality



Web Browsers

- Software applications that support navigation through the point-and-click hyper-linked resources of the Web
- Becoming the universal platform from which end users launch...
 - □ Information searches
 - □ E-mail
 - Multimedia file transfer
 - □ Discussion groups
 - Other Internet-based applications



Search Engines

- Browsers are used to gain access to Internet search engines
 - □ Google, Ask Jeeves, Look Smart, Lycos, Overture, Yahoo!
- Using search engines to find information has become an indispensable part of Internet, intranet, and extranet applications



E-mail, Instant Messaging, and Weblogs

- E-mail
 - Software to communicate by sending and receiving messages and attachments via the Internet, intranet, or extranet
- Instant messaging (IM)
 - □ Receive electronic messages instantly
- Weblog or blog
 - □ A personal website in dated log format
 - □ Updated with new information about a subject or range of subjects

Word Processing/Desktop Publishing

- Word Processing
 - □ Create, edit, revise, and print documents
 - Example: Microsoft Word, Lotus WordPro, Corel WordPerfect
- Desktop Publishing
 - Produce printed materials that look professionally published
 - □ Example: Adobe PageMaker, Microsoft Publisher, QuarkXPress



Electronic Spreadsheets

- Used by virtually every business for...
 - Analysis, planning, modeling
- Electronic Spreadsheet
 - Worksheet of rows and columns
 - Can be stored on local computer or on network
 - □ Requires designing format and developing the relationships (formulas)
 - Most help you develop charts and graphic displays of spreadsheet results
 - □ Supports what-if questions



Presentation Graphics

- Common presentation graphics packages...
 - Converts numeric data into graphics displays
 - □ Used to create multimedia presentations of graphics, photos, animation, and video clips
 - □ E.g., Microsoft PowerPoint, Lotus Freelance,
 Corel Presentations
 - □ Top packages can tailor files for transfer in HTML format to websites



Personal Information Managers

- Software for end user productivity and collaboration
 - □ Stores information about clients
 - Manages schedules, appointments, tasks
 - Most include ability to access the Web and provide e-mail capabilities
 - □ Some support team collaboration by sharing information with other PIM users
 - □ Example: Lotus Organizer, Microsoft Outlook



Groupware

- Software that helps workgroups collaborate on group assignments
 - E-mail, discussion groups, databases, video conferencing
 - □ Example: Lotus Notes, Novell GroupWise, Microsoft Exchange
 - Windows SharePoint Services and WebSphere both allow teams to create websites for information sharing and document collaboration



Software Alternatives

- Outsourcing development and maintenance of software
- Application service providers (ASPs)
 - Companies that own, operate, and maintain application software and computer system resources
 - □ Use the application for a fee over the Internet
 - □ Pay-as-you-go
 - Use expected to accelerate in the coming years



Software Licensing

- All COTS and ASP software is licensed
 - □ Involves the underlying...
 - Intellectual property rights
 - Copyright
 - Trademark
 - Trade secrets
 - Also involves traditional contract law, including Uniform Commercial Code (UCC)
- You don't buy software
 - ☐ You buy a license to use the software
 - □ Licensed to protect the vendor's property rights

Interface Between End Users and

Computer



