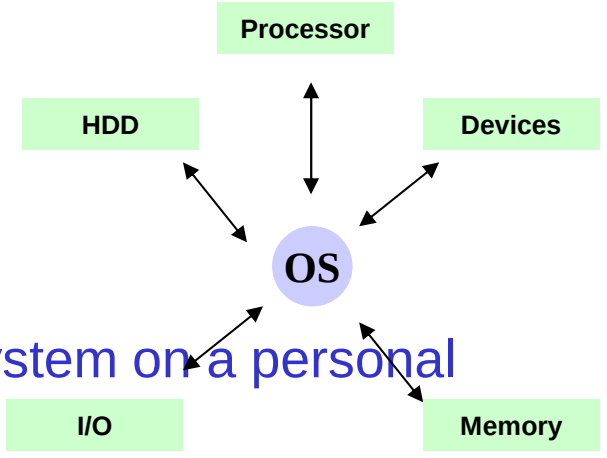
Objectives

- In this session, you will learn to:
  - Identify the major personal computer operating systems.
  - Identify the primary components of the Windows user interface.
  - Identify the primary tools and functions used in Windows file system management.
  - Identify Windows system management tools.

Personal Computer Operating Systems

- Operating System (OS): Provide consistent environment for other software to execute commands. The OS gives users an interface with the computer so they can send commands (input) and receive results (output).
- Roles of an Operating Systems
  - Control hardware access.
  - Manage files and folders.
  - Provide user interface.
  - Manage applications.



- The commonly used operating system on a personal computer are:
  - Microsoft Windows
  - Unix
  - Linux
  - Apple Macintosh Operating Systems

Microsoft Windows

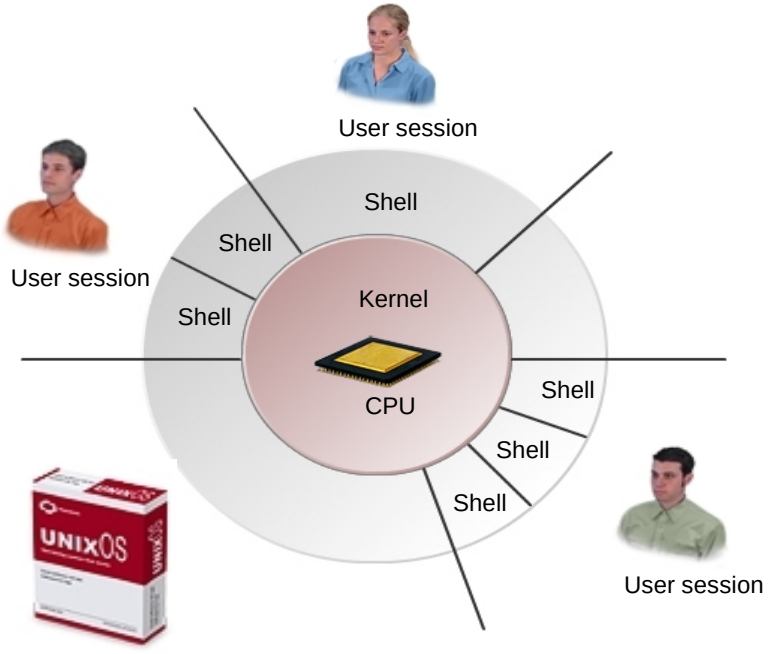
- Microsoft Windows:
  - Is the most popular desktop and server OS
  - Provides graphical user interface (GUI)
  - Supports wide range of application and devices
  - Requires a minimum 32-bit memory for processing
  - Provides native networking support
  - Supports a large suite of built-in applications and accessories
  - Often comes preinstalled on many PCs sold commercially

Microsoft Windows Versions

- Microsoft Windows comes in several different versions, such as:
  - Windows Vista
  - Windows XP
  - Windows Server 2003
  - Windows 2000
  - Windows 9x and Me
  - Windows NT
  - Older Windows Desktop Operating System

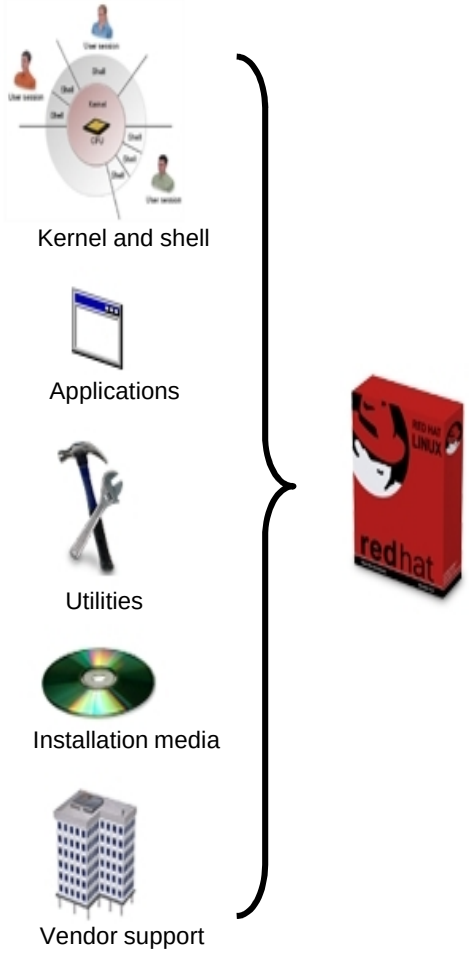
Unix

- UNIX:
  - Systems share a kernel/shell architecture
  - Is portable to different hardware platforms
  - Incorporates built-in multitasking, multiuser, built-in networking, and a robust development platform



Linux

- Linux:
  - Is an Open-standard UNIX derivative, developed by Linus Torvalds
  - Incorporates built-in multitasking, multiuser, built-in networking, and a robust development platform
  - Code is open. It can be downloaded, modified, and installed freely



Apple Macintosh Operating Systems

- Mac OS® X features:
  - Multiple user support
  - Integrated Mac, Windows, and UNIX server, file, and printer browsing in the Finder
  - Safari™ Web browser
  - Native TCP/IP networking
  - Many file- and network-level security features
  - Wide hardware device support with a unique Macintosh computer system design

Windows User Interface Components

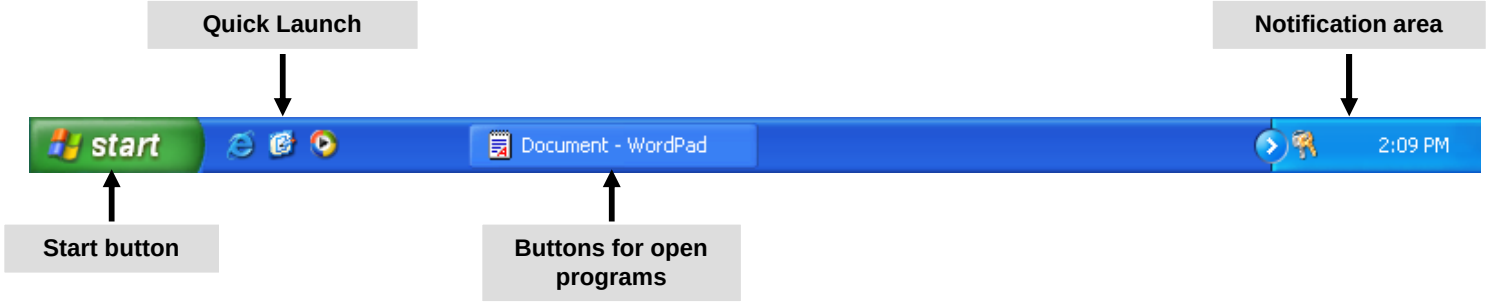
- The primary components of the Windows user interface are:
  - Windows Desktop
  - Taskbar
  - Start Menu
  - Windows Explorer
  - My Computer
  - My Documents Folder
  - Control Panel
  - Command Prompt
  - My Network Places

The Windows Desktop

- The ***Windows desktop*** is a general term for the overall contents of the computer screen that displays whenever Windows is running.

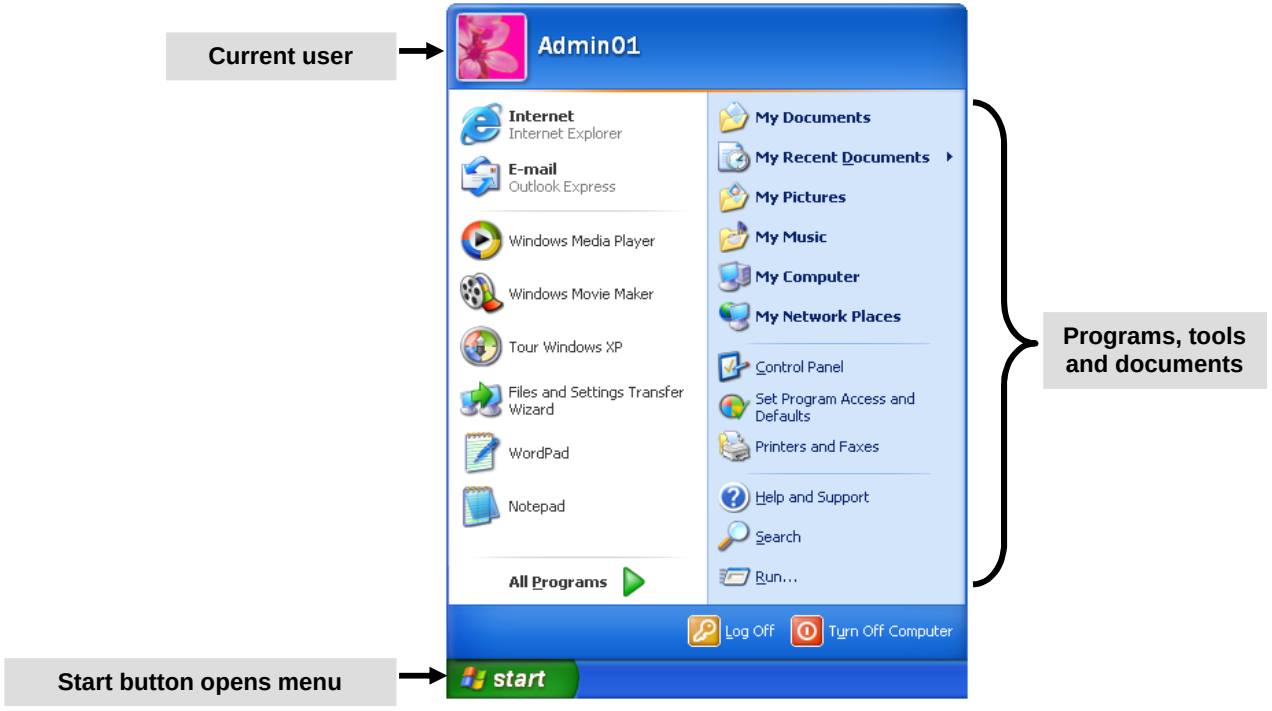
The Taskbar

- The ***Taskbar*** is located at the bottom of the screen.



The Start Menu

- The ***Start Menu*** is the main entry point into the Windows user interface. You can access programs, tools, and documents by choosing them directly from the Start menu or from one of its sub-menus.

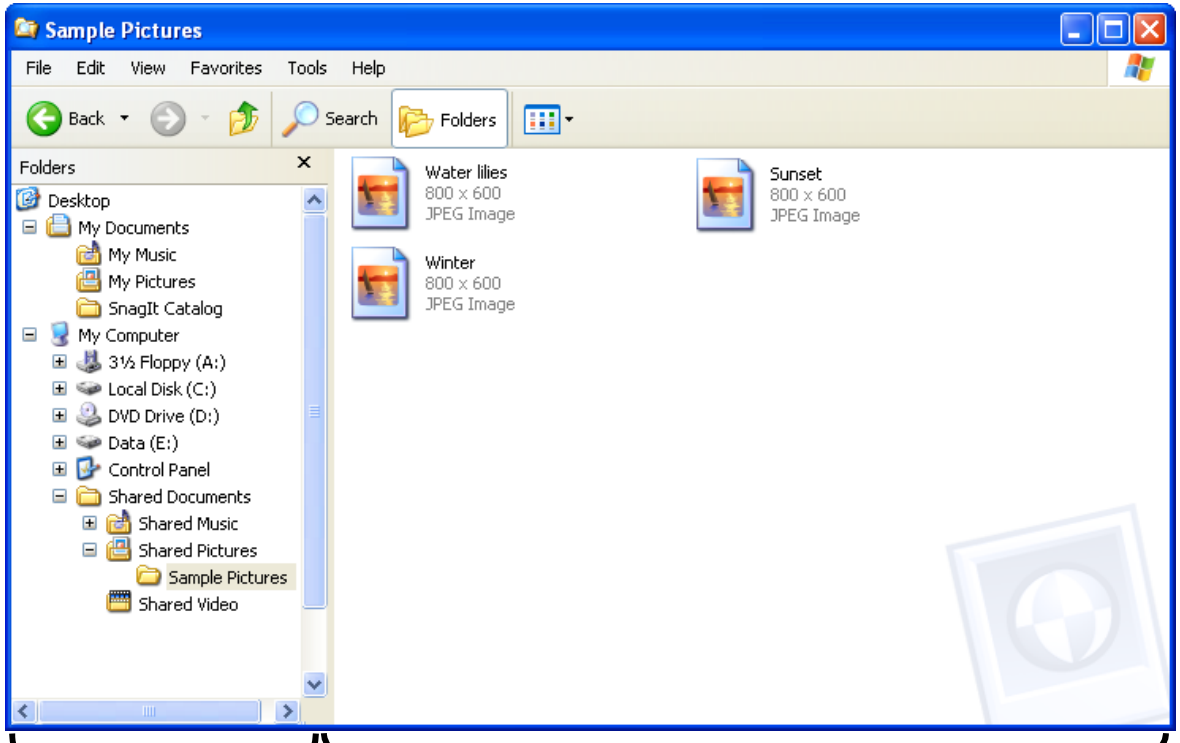


Activity 2-2

Activity on Examining the Taskbar and Start Menu

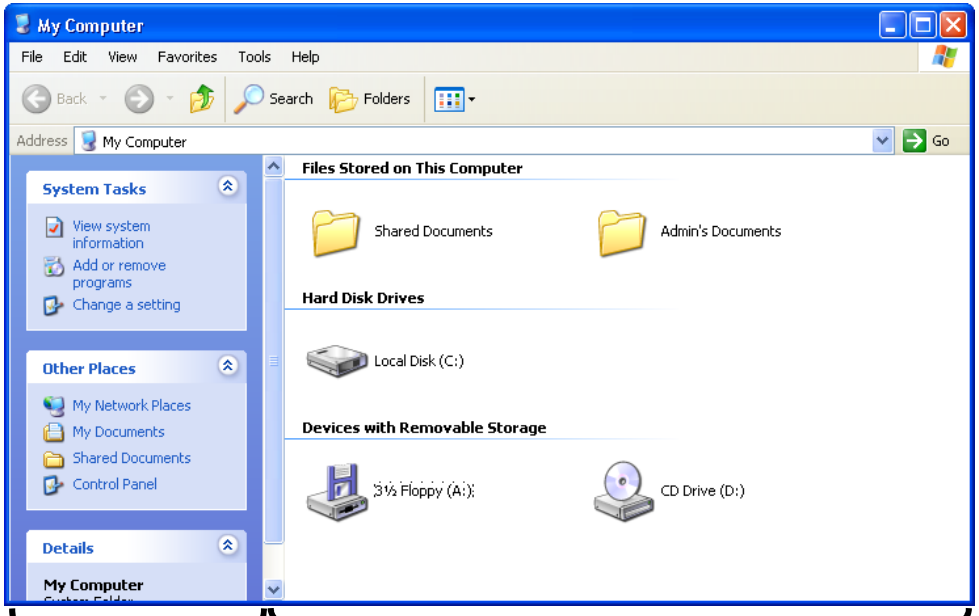
Windows Explorer

- ***Windows Explorer*** is a graphical tool that enables users to manage files and folders on a computer.



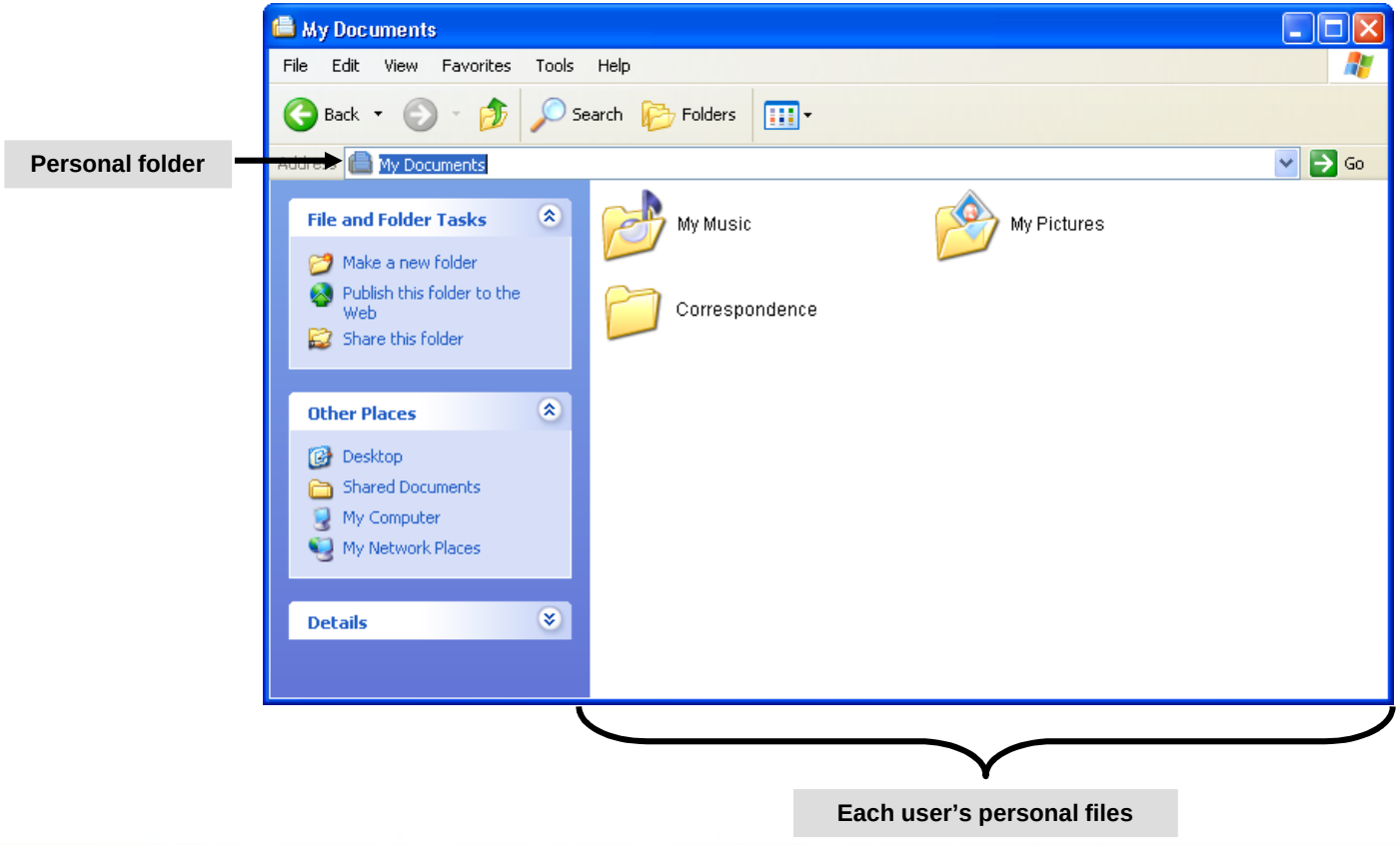
My Computer

- ***My Computer*** is used to manage files and folders on a computer and on any storage devices attached to the computer. It has a single pane view of Windows explorer, which has an additional task pane.



The My Documents Folder

- Each user on a Windows system has a personal folder named ***My Documents*** for storing the user's individual files.

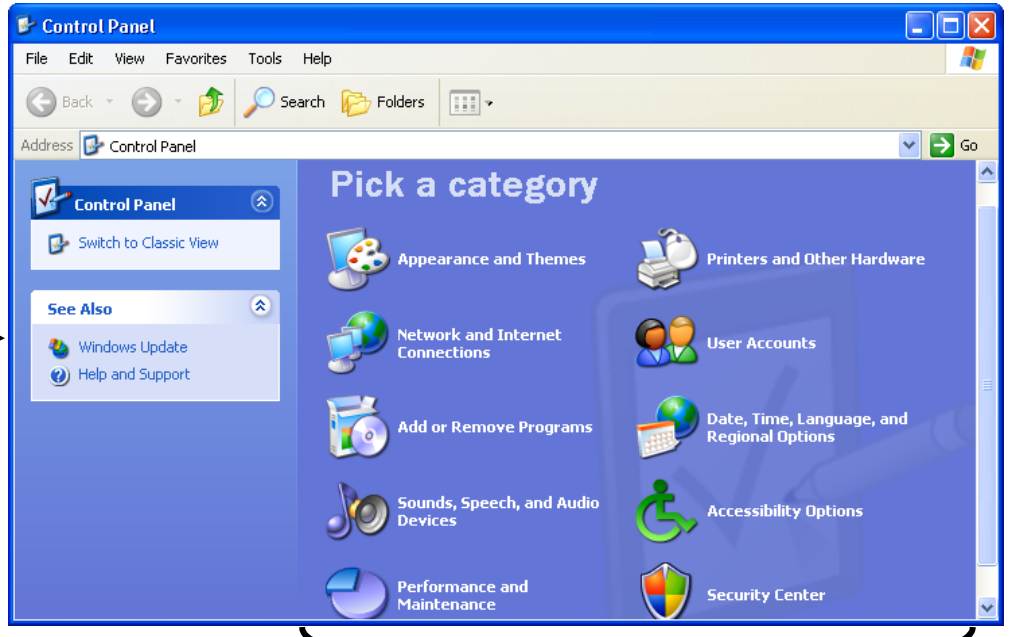


Activity 2-3

Activity on Examining Folder Management Tools

The Control Panel

- The ***Control Panel*** is a graphical interface that provides access to a number of utilities that you can use to configure the Windows operating system or the computer's hardware.

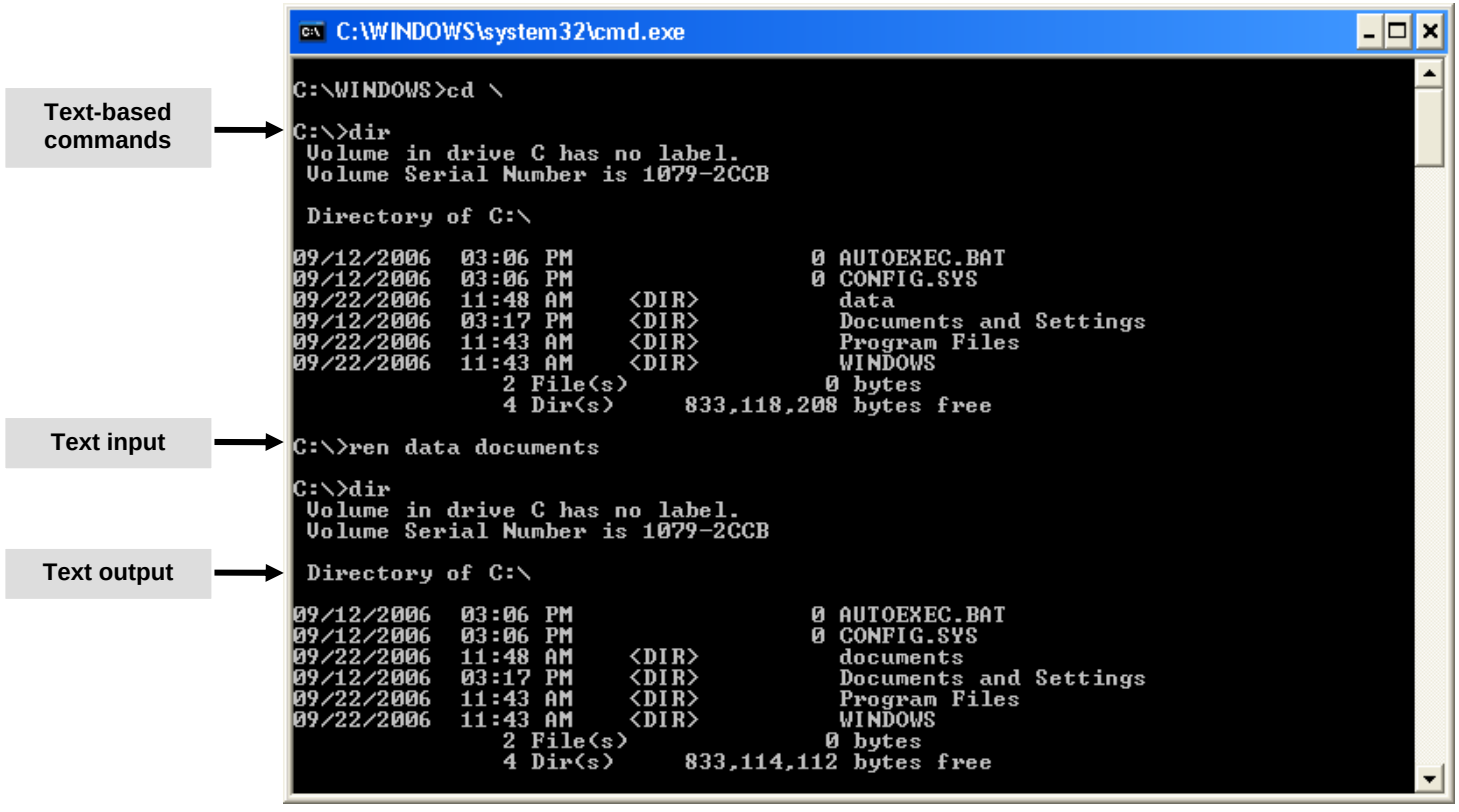


Activity 2-4

Activity on Exploring the Control Panel

The Command Prompt

- The ***Command Prompt*** enables you to enter text-based commands or run command-line tools.

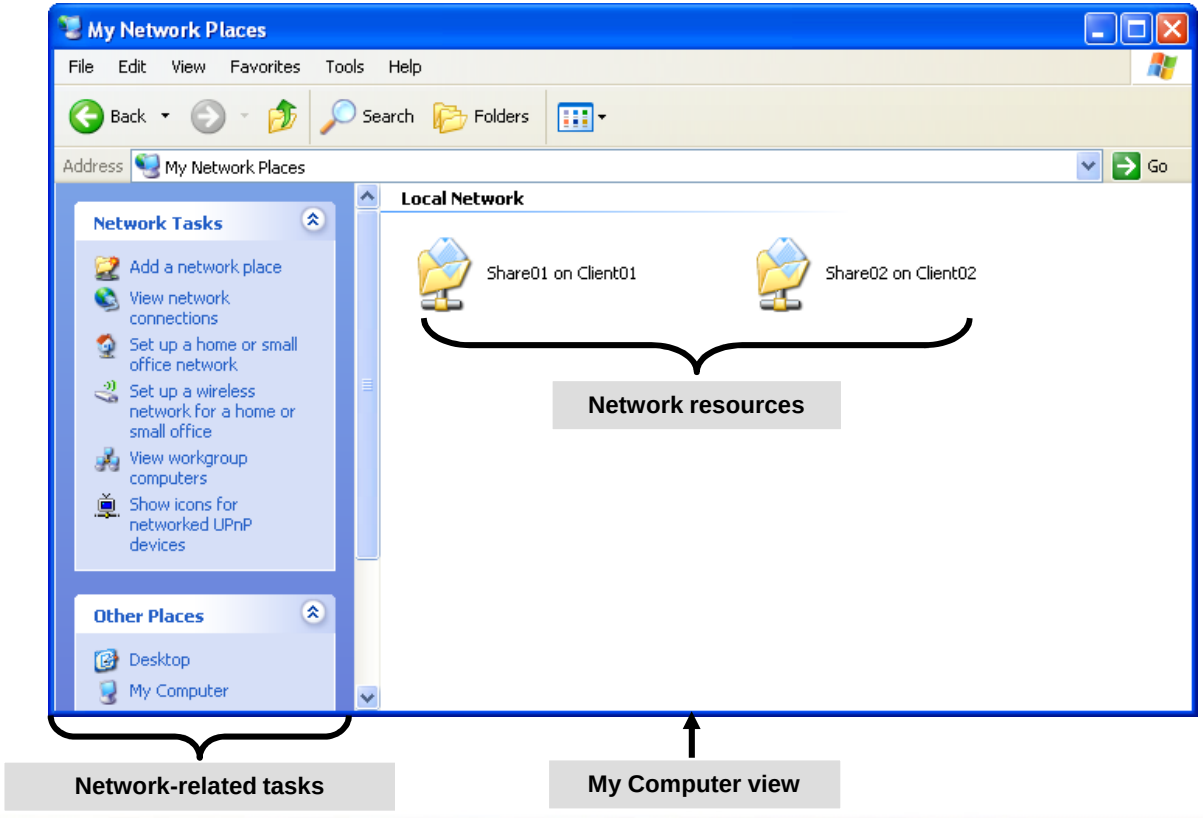


Activity 2-5

Activity on Running the Command Prompt

My Network Places

- ***My Network Places*** is a view of My Computer that enables you to connect to other computers and to manage files and folders elsewhere on the network.



Activity 2-6

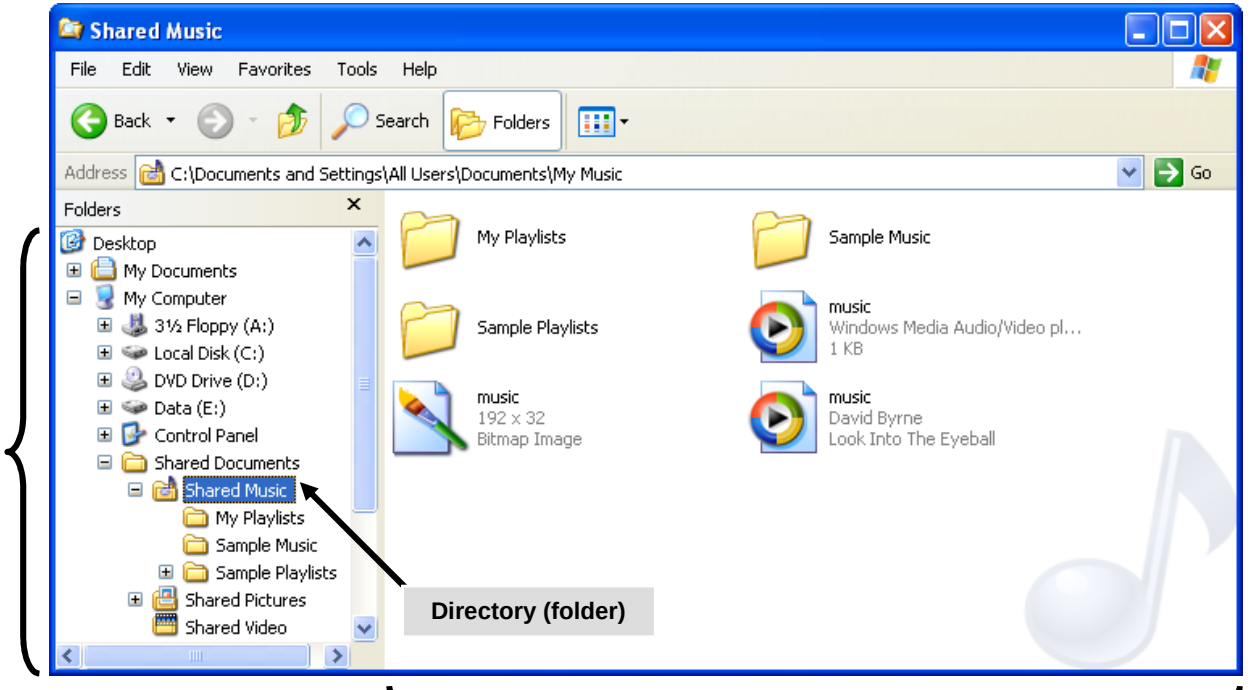
Activity on Exploring My Network Places

Windows File System Management

- The primary tools and functions used in Windows file system management are:
  - Directories and Folders
  - File Extensions
  - File Attributes
  - File Systems
  - Shared Resources

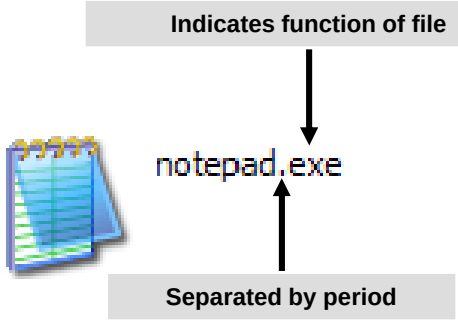
Directories and Folders

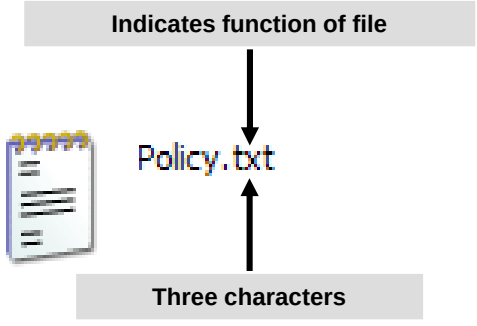
- Directory and folder are interchangeable terms for a component in a file system hierarchy that provides a container to organize files and other folders.



File Extensions

- Standard file extensions following the names of files can indicate whether a particular file is a system, program, or data file.





Activity 2-7

Activity on Viewing File Extensions

File Attributes

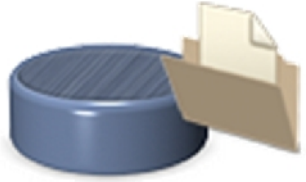
- There are several standard attributes you can set or clear on files and folders on Windows systems. They are:
  - Archive
  - Hidden
  - Read-only
  - System
  - Index (Windows only)

Activity 2-8

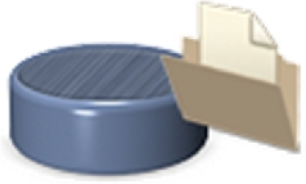
Activity on Exploring File Attributes

Windows File Systems

- Windows supports several different file systems. They are:
  - FAT / FAT32
    - Legacy file systems
    - Support dual-boot to DOS
    - FAT: floppy disks, very small drives
    - FAT32: enhanced for larger drives
    - No security, encryption, compression
  - NTFS
    - Permissions
    - Encryption
    - Compression
    - Large files and drives
  - Media file systems
    - For other media



FAT/FAT32

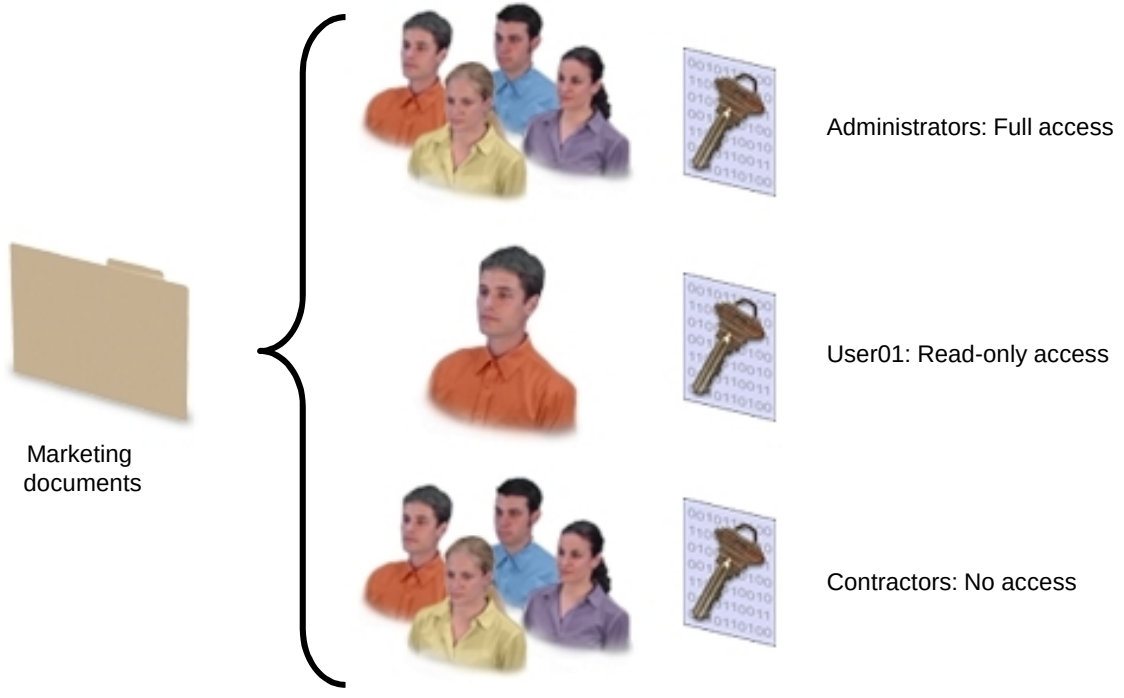


NTFS

Media File Systems

Permissions

- Permissions are security settings that control access to individual objects, such as files.

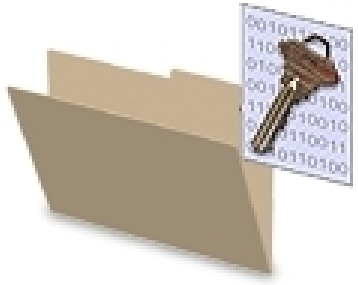


NTFS File Permissions

- There are five standard NTFS permissions you can assign to files. They are:
  - Read
  - Write
  - Read & Execute
  - Modify
  - Full Control

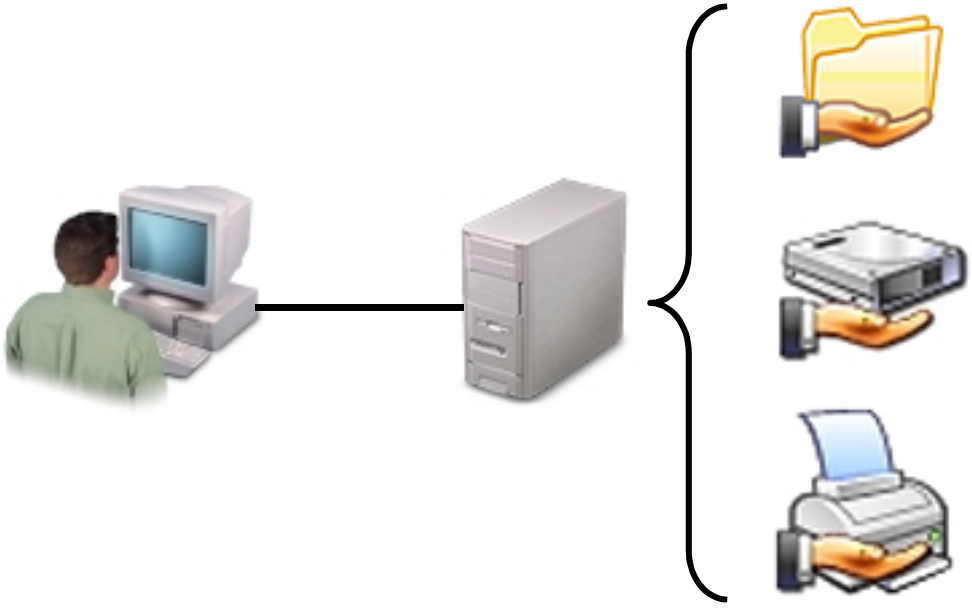
NTFS Folder Permissions

- There are six standard NTFS permissions you can assign to files. They are:
  - List Folder Contents
  - Read
  - Write
  - Read & Execute
  - Modify
  - Full Control



Shares

- A ***share*** is any network resource that is available to other computer users on the network. Typical shares include folders, printers, and drives.



Shared Folder Permissions

- You can set three different levels of permissions on shared folders.

Permission	Description
Read	•View file and subfolder names, contents, attributes •Run program files •Granted to Everyone by default
Change	•Perform all Read permission tasks •Add, change, delete files and folders
Full Control	•Perform all Read and Change permission tasks •Change permissions

Activity 2-9

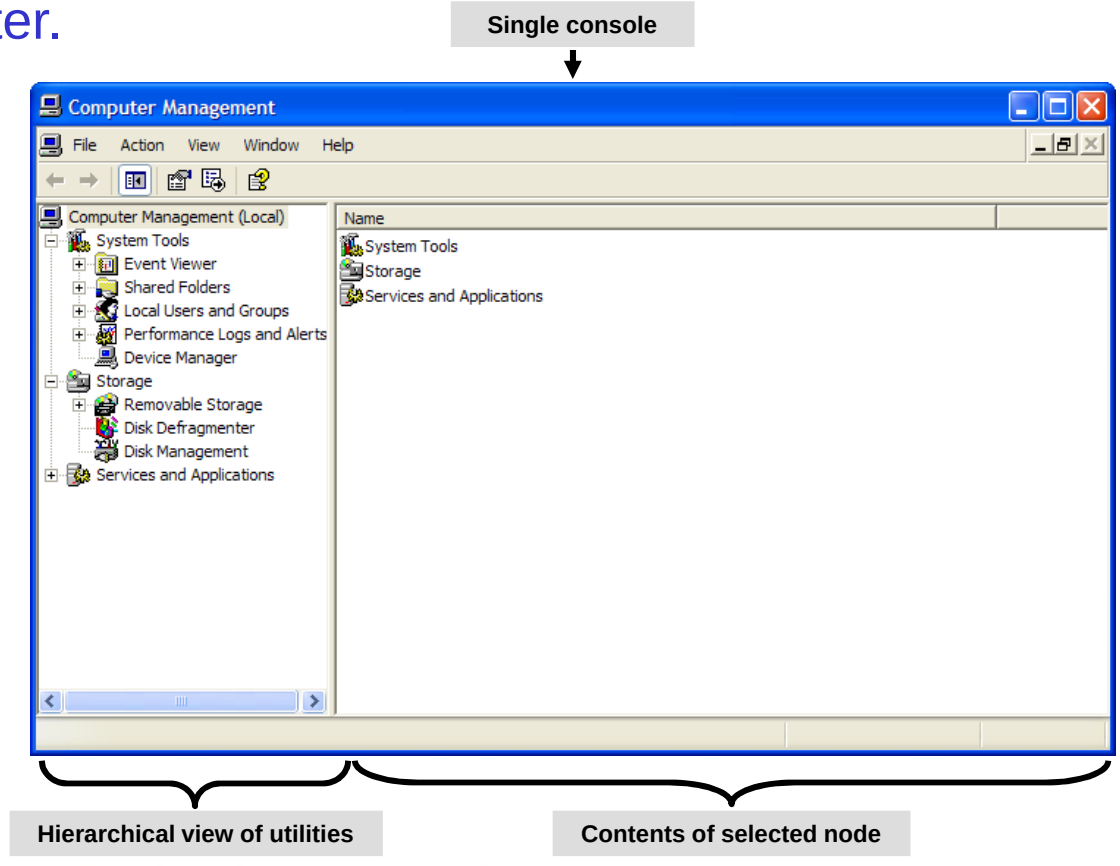
Activity on Exploring NTFS Permissions

Windows System Management Tools

- Some of the important Windows system management tools are:
  - The Computer Management Console
  - The Registry

The Computer Management Console

- ***Computer Management*** is the primary administrative tool you will use to manage and configure a Windows XP computer.

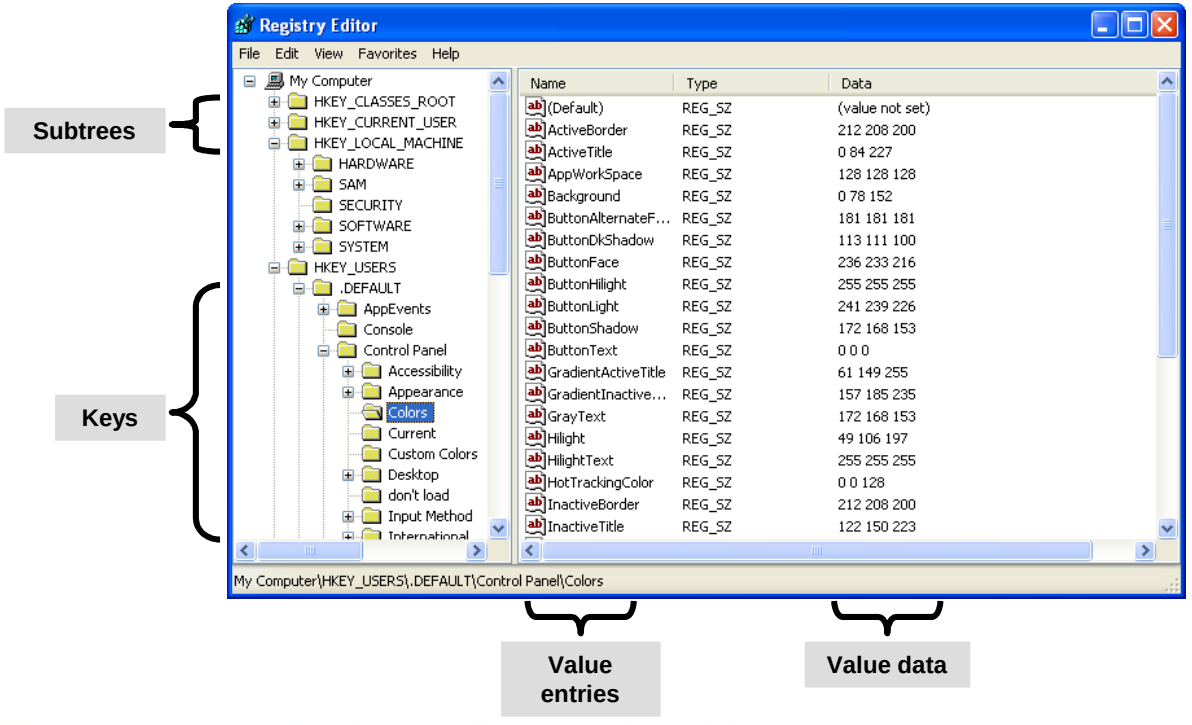


Activity 2-10

Activity on Examining Computer Management

The Registry

- The ***registry*** is the central configuration database where Windows stores and retrieves startup settings, hardware and software configuration information, and information for local user accounts.



Activity 2-11

Activity on Examining the Structure of the Registry

Summary

- In this session, you learned that:
  - The commonly used operating system on a personal computer are Microsoft Windows, Unix, Linux, and Apple Macintosh Operating Systems.
  - The primary components of the Windows user interface are Windows desktop, taskbar, start menu, Windows explorer, My Computer, My Documents folder, control panel, command Prompt, and My Network Places.
  - The primary tools and functions used in Windows file system management are directories and folders, file extensions, file attributes, file systems, and shared resources.
  - Some of the important Windows system management tools are computer management console and registry.