

Lab 02:

Windows Operating System

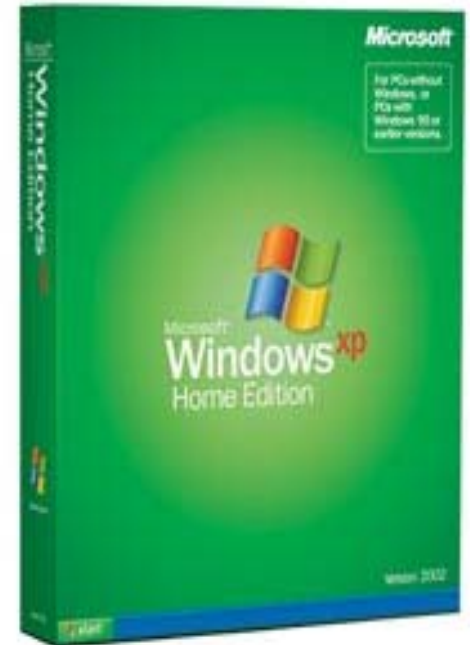
Objectives

Develop a good understanding of

1. The role of an operating system in a computer system
 2. Services provided by an operating system and have some hands on experience in
 1. Understanding windows desktop user interface
 2. Configuring the Windows operating system using control panel
 3. Managing hardware, software, and users
 3. Standalone and networked operating systems
 4. Getting connected
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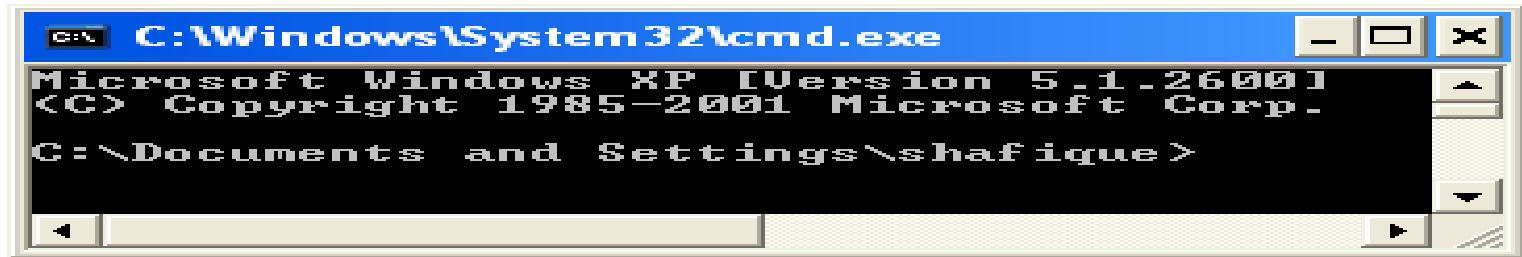
What is an Operating System?

- An operating system is a system software that
 1. Controls the system's hardware
 2. Interacts with the user (user interface)
 3. Interacts with application software
- Operating System is the first software that starts executing when we turn the computer on.



Operating Systems (Cont.)

- DOS (Disk Operating System) was the first operating system for the personal computers. DOS used command line interface

A screenshot of a Windows XP command prompt window. The title bar reads "C:\Windows\System32\cmd.exe". The window content shows the following text: "Microsoft Windows XP [Version 5.1.2600] Copyright 1985-2001 Microsoft Corp. C:\Documents and Settings\shafique>". The window has standard Windows XP window controls (minimize, maximize, close) and a scroll bar on the right side.

```
C:\Windows\System32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\shafique>
```

- Modern operating systems like WINDOWS XP and MAC OS use Graphical User Interface (GUI)
- GUI of an Operating system as it appears on the monitor screen is also called “desktop”

Operating Systems (Cont.)

- Some primary operating systems used on personal computers are
 1. DOS
 2. UNIX, LINUX
 3. Mac OS (Macintosh Operating System)
 4. OS/2 WARP
 5. WINDOWS NT
 1. Windows NT workstation
 2. Windows NT Server
 6. WINDOWS 2000
 7. WINDOWS XP
 8. Embedded operating systems
 1. Palm OS
 2. Windows CE

Operating Systems (Cont.)

- An operating system performs the following functions
 1. Provides instructions to display the on-screen elements with which users interact
 2. Loads application programs into the computer memory so that users can use them
 3. Coordinates interaction of programs with CPU, RAM, keyboard, mouse, monitor, printer, storage, other hardware and software
 4. Manages the way information is stored on and retrieved from disks
 5. Provides a basic level of security through user ID and password

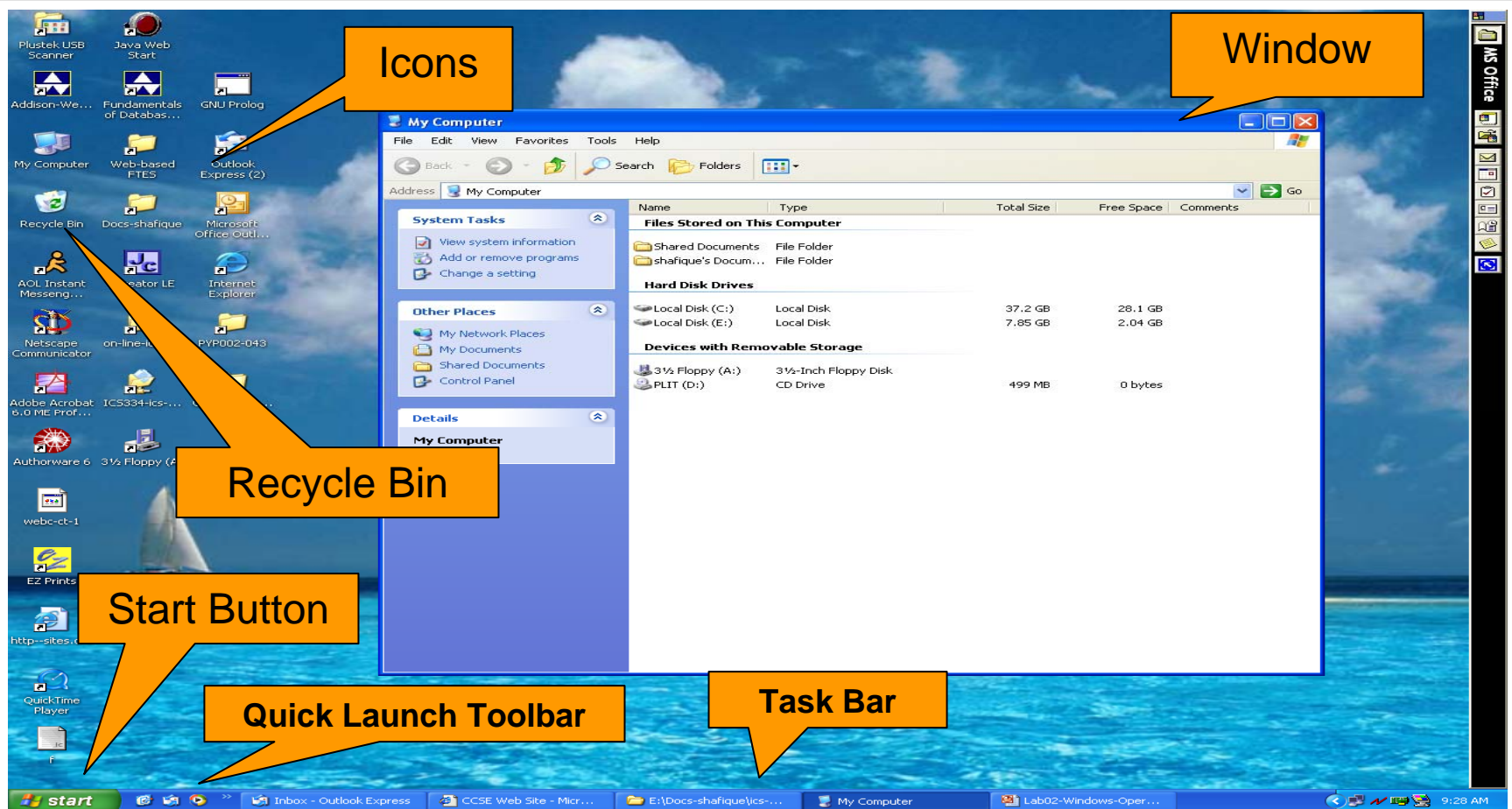
Operating Systems (Cont.)

- An operating system functions (or services) can be grouped into following categories:
 - Processor management
 - Memory management
 - Device management
 - Storage management
 - Application interface
 - User interface

Operating Systems (Cont.)

- WINDOWS XP operating system
 1. Windows desktop
(Next slide)

Windows Desktop User Interface



Windows Desktop User Interface (Cont.)

- Various elements of desktop
 - **Start button** --- provides access to programs, documents, system settings, and help
 - **Quick launch toolbar** --- gives one click access to frequently used programs
 - **Icons and shortcuts** --- double click on an icon or shortcut gives access to the object it represents
 - **Recycle Bin**
 - The desktop provides a **work area** where programs and files appear in windows

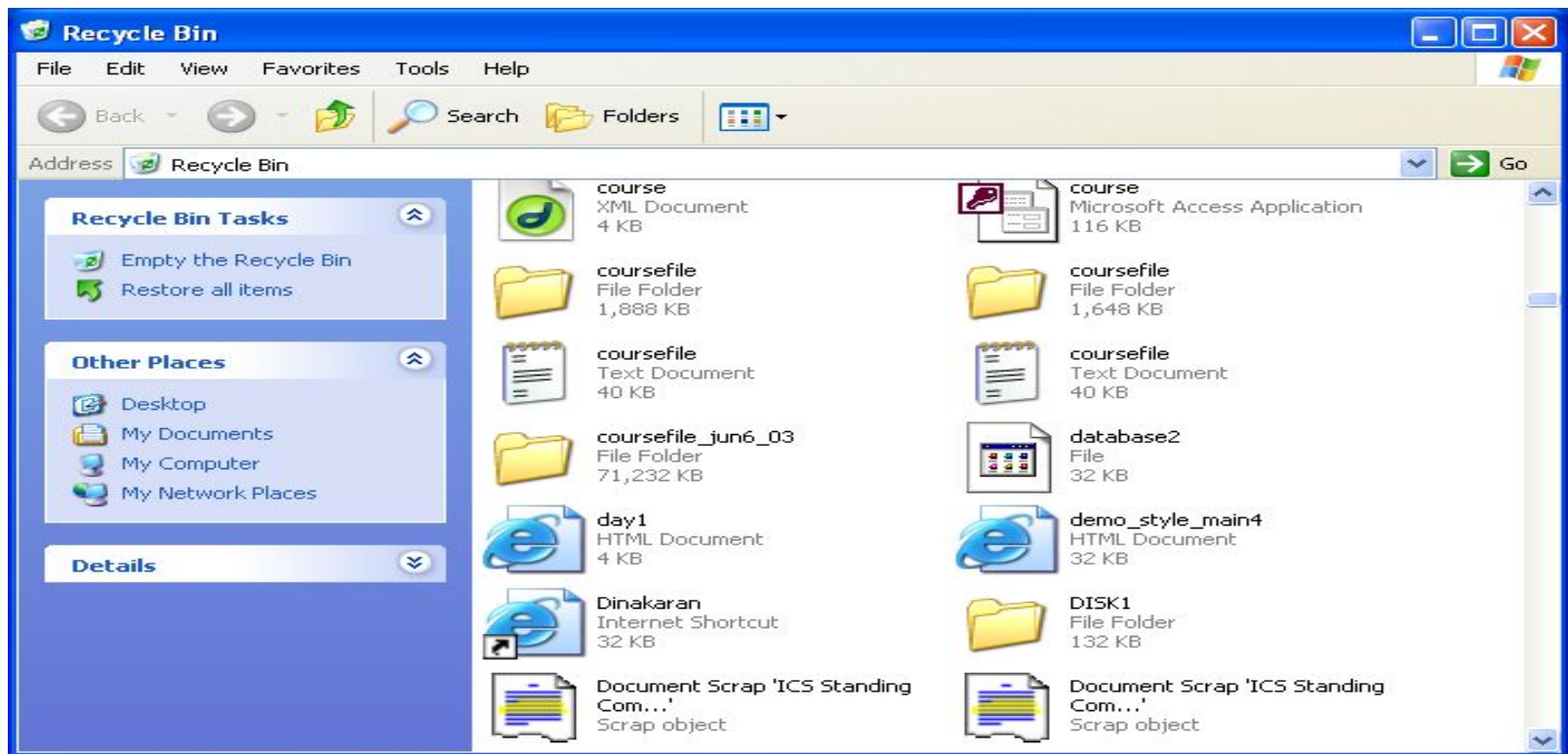
Windows Desktop User Interface (Cont.)

□ Recycle Bin

- The Recycle bin is a place where you put garbage.
- When you delete a file from your computer, it is sent to the Recycle bin.
- It stays in the Recycle bin until you empty the recycle bin or until the Recycle bin becomes full.
- The files you delete from the removable drives are not sent to the Recycle bin.

Windows Desktop User Interface (Cont.)

□ Recycle Bin Snapshot.

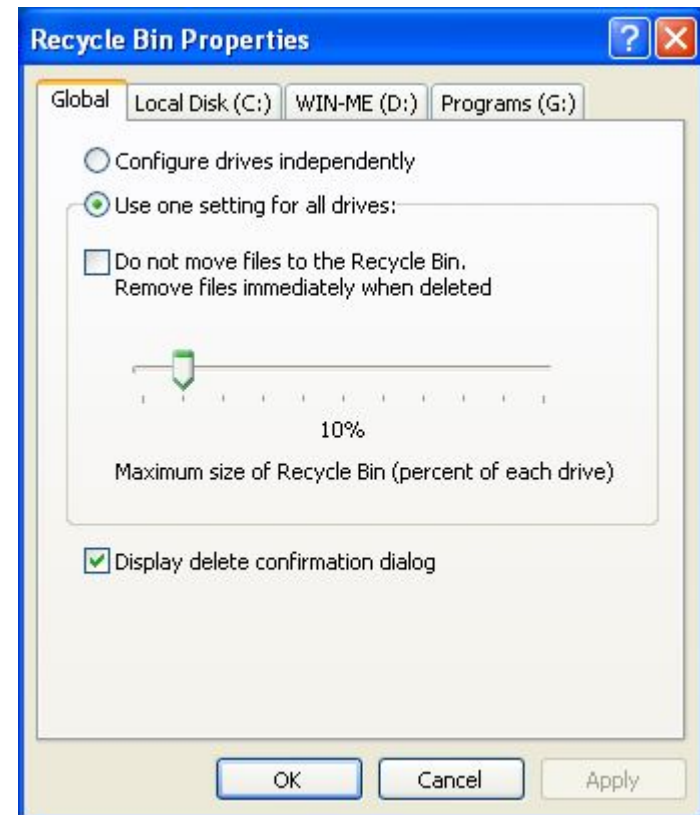


Windows Desktop User Interface (Cont.)

- Restoring files from the Recycle bin
 - If you have deleted a file accidentally from your computer, you can restore it from the recycle bin.
 - You just have to select a particular file you want to restore and then click “Restore” from the File menu or right click the mouse and choose “Restore”.
 - You may also restore all item in the Recycle bin by selecting all items then restore

Windows Desktop User Interface (Cont.)

- Changing the Recycle Bin's properties
 - If you right click the Recycle bin icon and click the “properties” menu item you will get the window.



Windows Desktop User Interface (Cont.)

- Changing the Recycle Bin's properties
 - If you have more than one hard drive, You can choose to use a single setting for all the drives or you can configure the setting for each drive independently
 - The default settings of the recycle bin are shown in the previous slide, that is the recycle bin uses 10% of the hard drive to store the deleted files.
 - You can also choose not to move the deleted files to the Recycle bin.
 - You can also choose to have, or not to have the confirmation dialog when you delete a file.

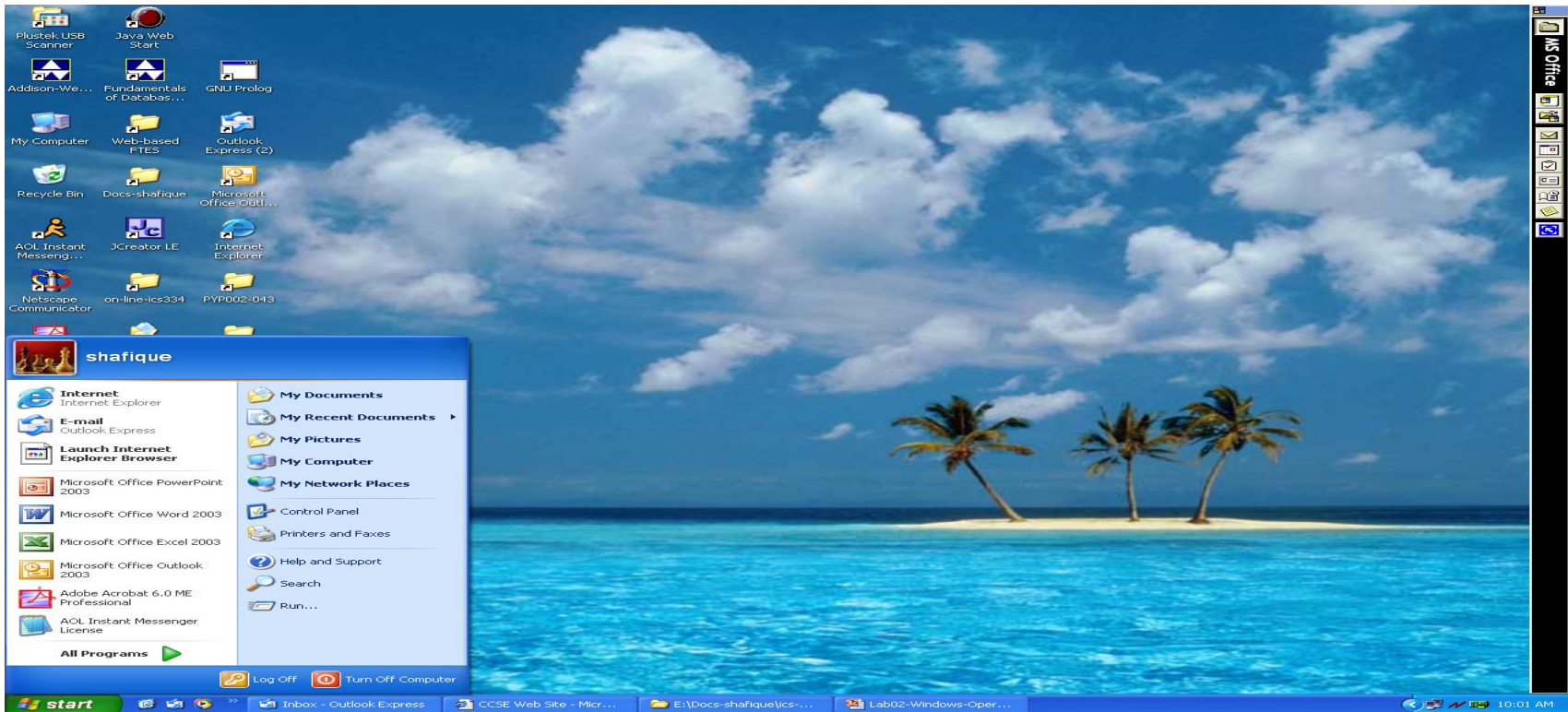
Windows desktop user interface (Cont.)

□ **Managing your Taskbar**

- The taskbar contains the start menu.
- It contains a notification area.
- Any windows or applications that are open or minimized are also show up in the taskbar.
- The start menu in the taskbar is the gateway to most windows components and applications
- Demo on managing the task bar.

Windows desktop user interface (Cont.)

□ Using Start menu



Windows desktop user interface (Cont.)

- Using Start menu
 - Log off
 - Windows XP is a multi-user operating system. It allows more than one user to use the same computer.
 - In Windows XP ,all the settings and documents of a user are tied with the user.
 - Choosing Log Off from the Start button results in a Log Off Window with two options
 1. Switch User
 2. Log Off
 - Choosing Log Off option enables the user to log off the computer without restarting
 - Choosing Switch User option lets another log on while the current users program and files remain open

Windows desktop user interface (Cont.)

□ Using Start menu

■ Restarting or Turning off the Computer

In order to shutdown or restart your computer, click the Start menu and then click Turn Off Computer. A dialog box appears with three options.

□ Stand By

This setting saves all your current desktop settings to your hard disk and then powers down the computer. When you start the computer again you return to the same applications and files you were working on

□ Turn Off

This option shuts down the Windows XP safely

□ Restart

This option shuts down the computer safely and restarts the computer immediately.

Windows desktop user interface (Cont.)

□ Other components of the Start Menu

- All Programs

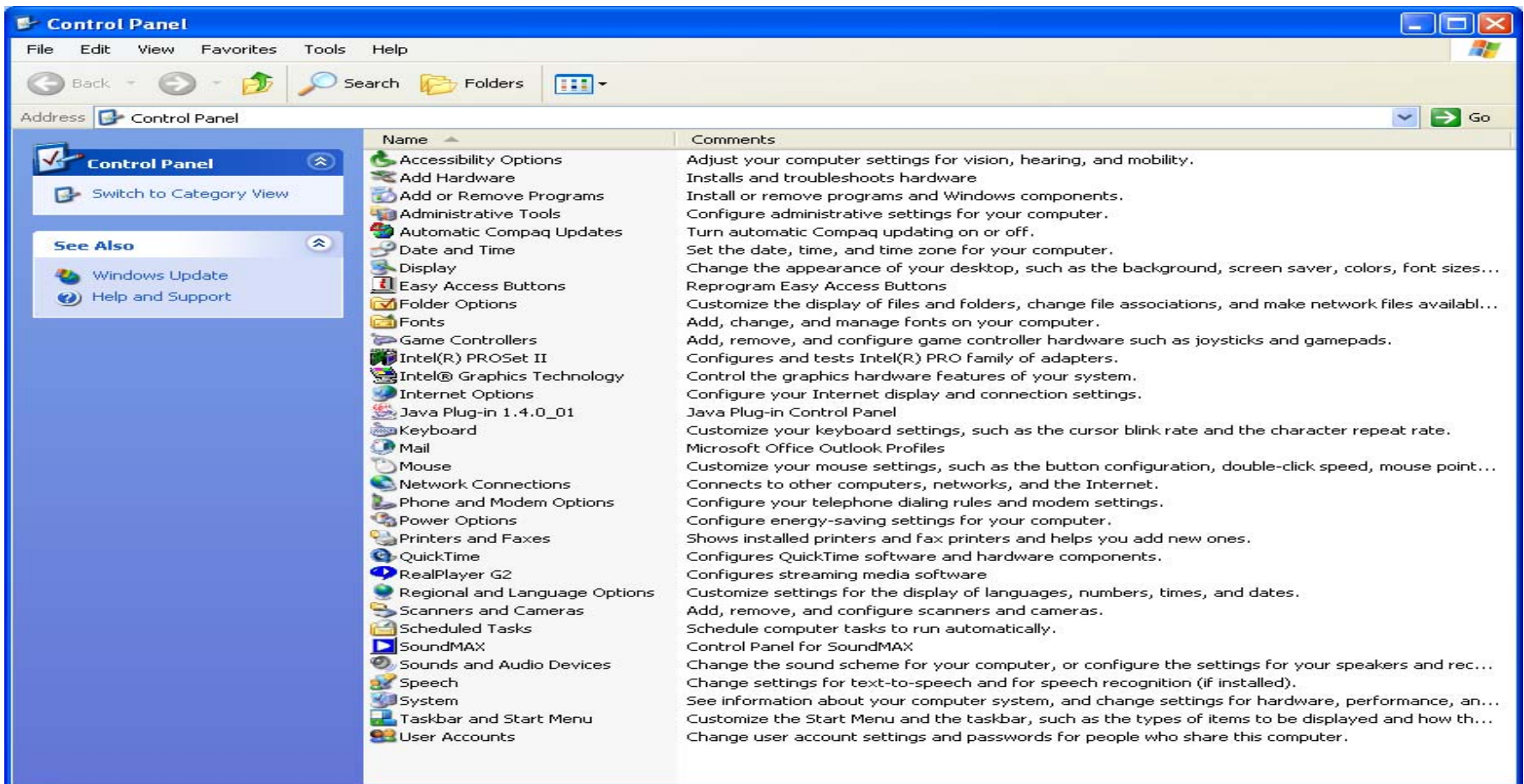
- Quick access to files, recently used documents, system settings, Internet, printers, and help

- Control Panel

Control Panel is a collection of tools for customizing Windows system settings so that users can work efficiently

- (Control Panel window next slide)

Control Panel



Configuring the Windows operating system using control panel

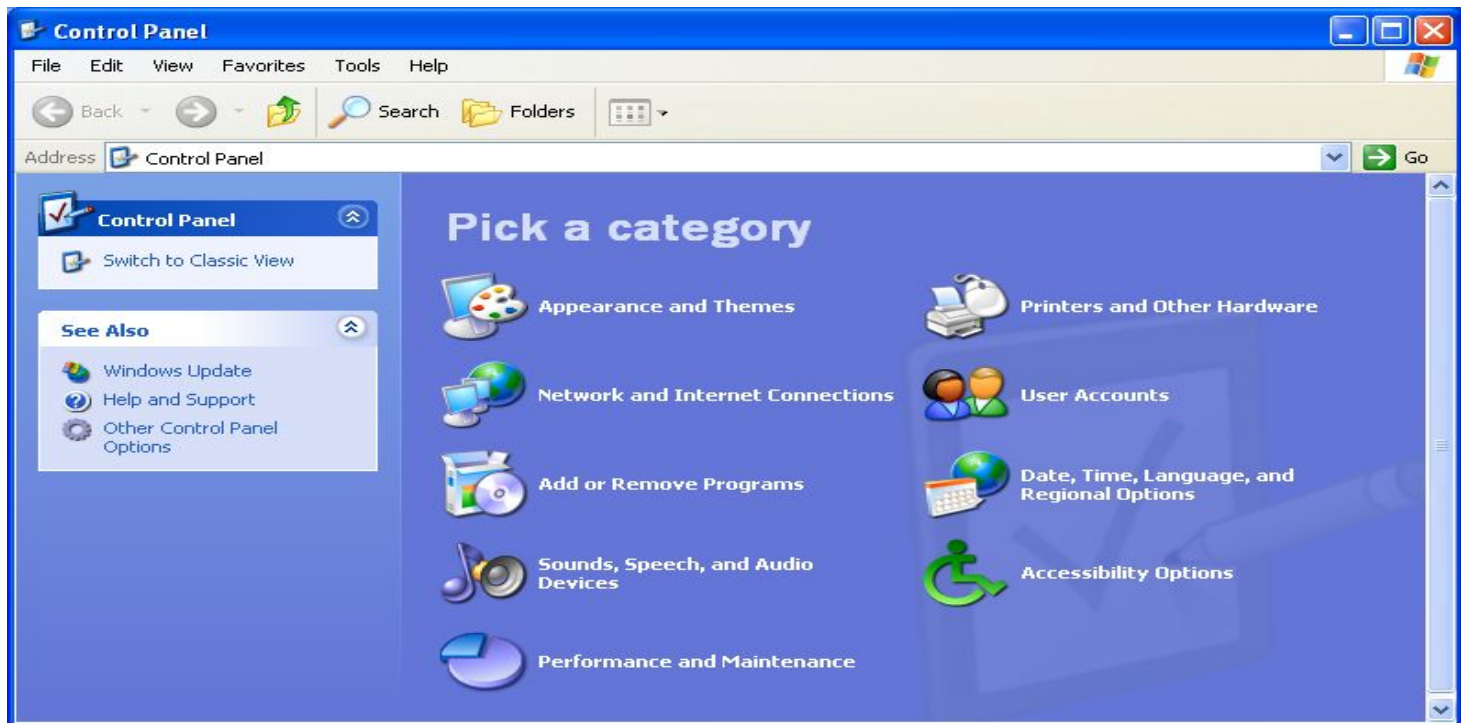
- Accessibility options
 - Change display settings
 - Adjust keyboard and mouse settings
- Add Hardware
- Add or Remove Programs
 - Installing and uninstalling software
- Administrative Tools
- User Accounts

Manage you Computer with Control Panel

- ❑ The Control Panel gives various tools that allow you to determine how various components of Windows XP look and act.
- ❑ If you click **Start** and then click **Control Panel** you will get the control panel window

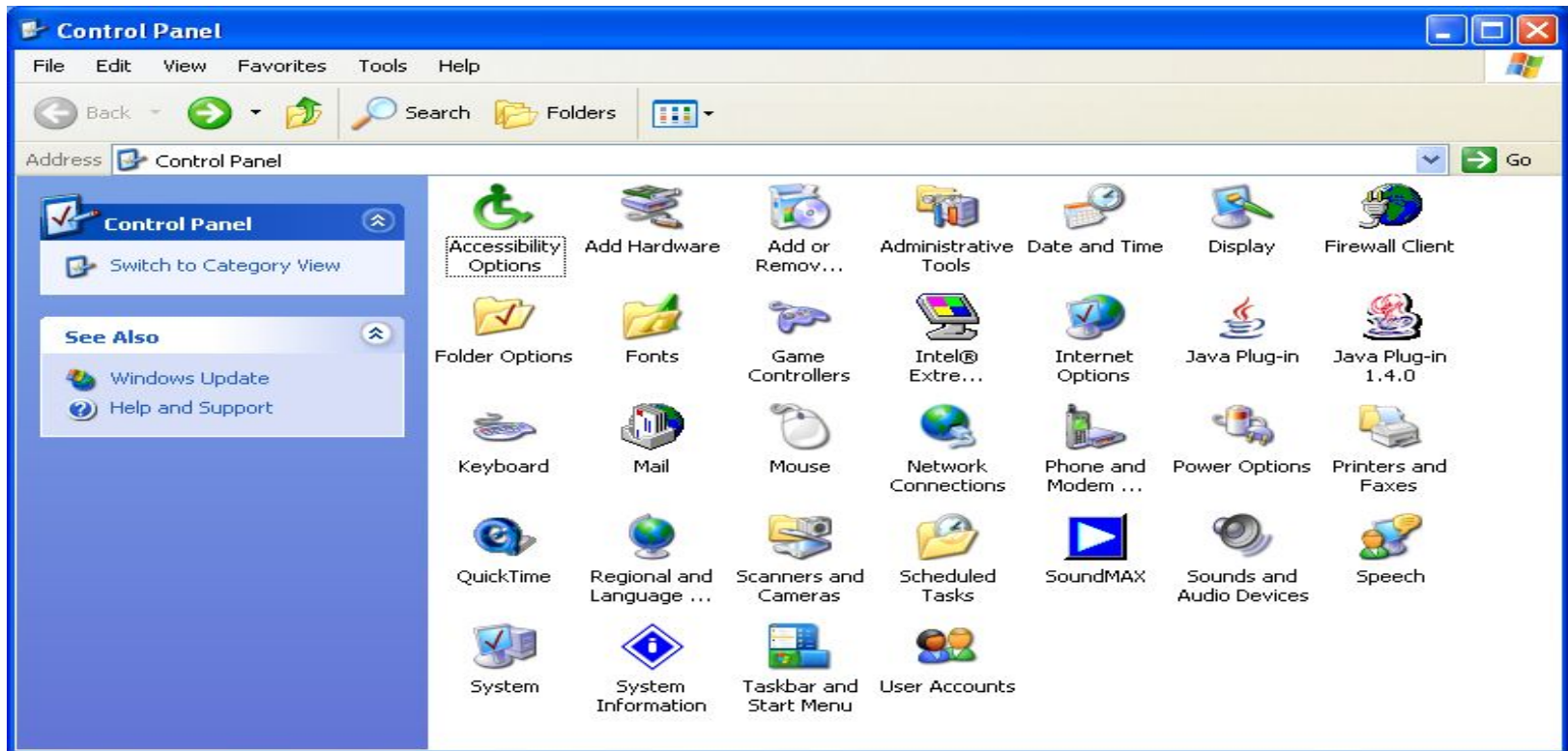
Control panel

- You can view the control panel in two ways
 1. Category view



Control panel

2. Classic view



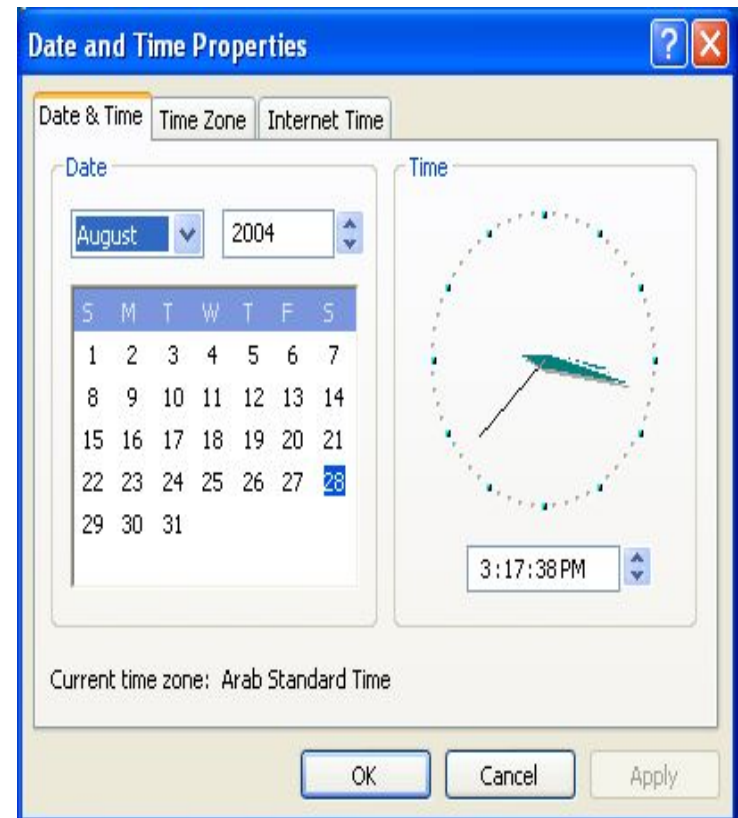


Control panel

- In the Category view you get only the most common tools. If you want to view all the control panel tools you have to switch to the Classic view.

Date and Time

- ❑ The date and time icon in the control panel allows you to set your operating system's clock.
- ❑ When you double click the icon you see a simple window interface
- ❑ You can change the date by simply using the drop menu.
- ❑ You can change the time by using the scroll buttons.
- ❑ You can set the time zone you are in through the time zone tab.
- ❑ The internet time option allows you to synchronize your computer with an internet time server to make sure that your computer always has the exact time



More Control panel tools

- The following control panel tools will be demonstrated during the lab session
 - Accessibility option
 - Display
 - Folder options
 - Fonts
 - Keyboard
 - Mouse
 - Sounds and Audio devices.
 - Regional and language options.
 - User Accounts.

Other Control panel options

- | | |
|---|--|
| <ul style="list-style-type: none"><input type="checkbox"/> Accessibility Option<input type="checkbox"/> Add hardware<input type="checkbox"/> Add or remove programs<input type="checkbox"/> Administrative tools<input type="checkbox"/> Date and Time<input type="checkbox"/> Display<input type="checkbox"/> Folder options<input type="checkbox"/> Fonts<input type="checkbox"/> Game Controllers<input type="checkbox"/> Internet options<input type="checkbox"/> Keyboard<input type="checkbox"/> Mouse | <ul style="list-style-type: none"><input type="checkbox"/> Network Connection<input type="checkbox"/> Phone and Modem options<input type="checkbox"/> Power options<input type="checkbox"/> Printer and Faxes<input type="checkbox"/> Regional and Language option<input type="checkbox"/> Scanner and Cameras<input type="checkbox"/> Sound and audio devices<input type="checkbox"/> Speech<input type="checkbox"/> System<input type="checkbox"/> Task bar and start menu<input type="checkbox"/> User accounts |
|---|--|