

IT Essentials 5.0

5.3.7.2 Lab - Working with CLI Commands in Windows

Introduction

Print and complete this lab.

In this lab, you will use Windows CLI commands to manage folders, files and programs in Windows 7/Vista/XP.

Recommended Equipment

The following equipment is required for this exercise:

- A computer running Windows 7 or Windows Vista or Windows XP

Step 1

Logon to the computer as an administrator.

Note: If you logon with a user account other than “Administrator”, you will need to substitute that user account name with the “Administrator” account name when typing in commands. Example: **cd Users\Administrator** replaced with **cd Users\Braxton**

For Windows 7 and Vista:

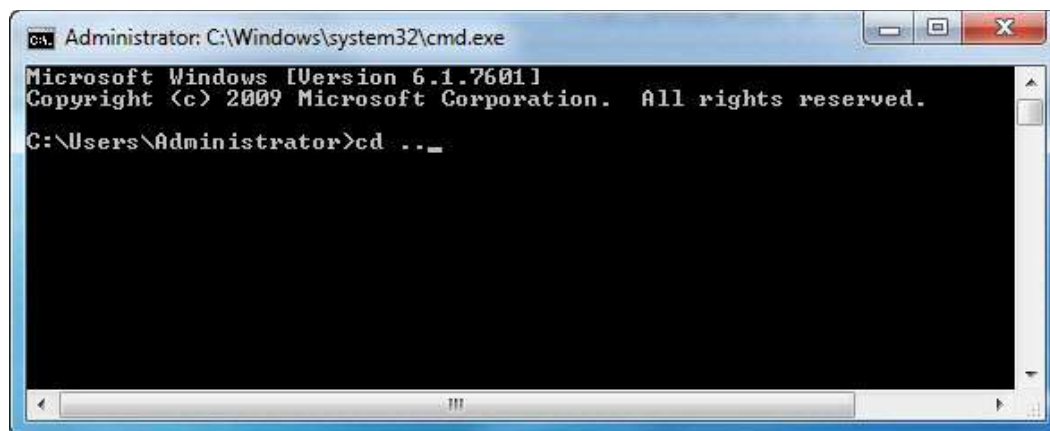
Navigate to the “Run” window by clicking **Start**. Type **cmd** and then press **Enter**.

For Windows XP:

Navigate to the “Run” window by clicking **Start > Run**. Type **cmd** and click **OK**.

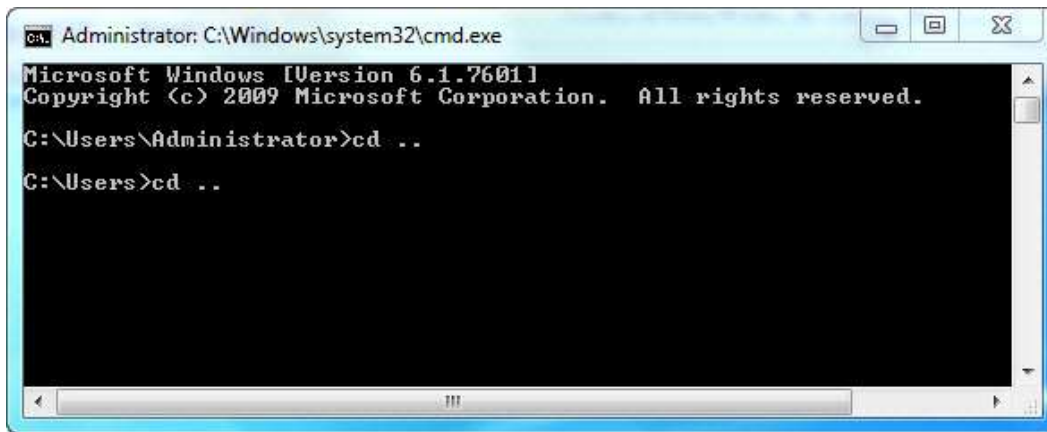
Step 2

The command window opens.



What directory are you at?

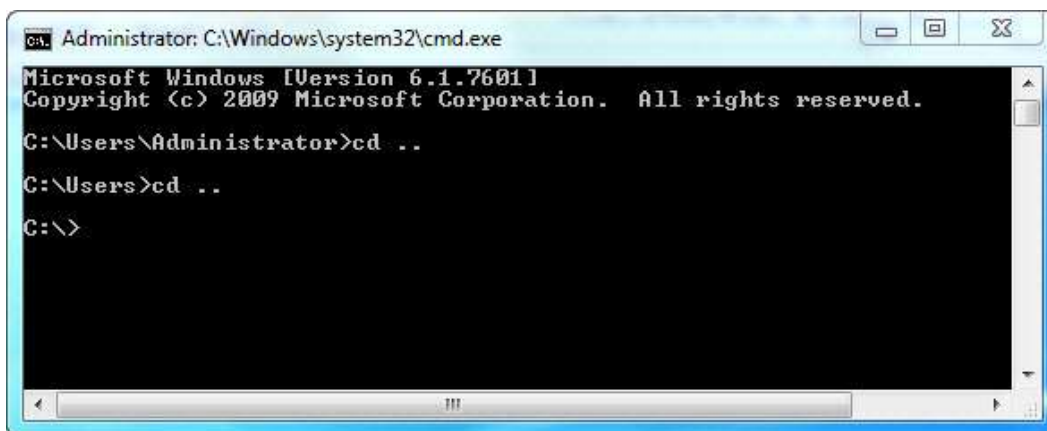
At the command prompt, type **cd ..** then press **Enter**.



```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>cd ..
C:\Users>cd ..
```

At the command prompt, type **cd ..** again then press **Enter**.



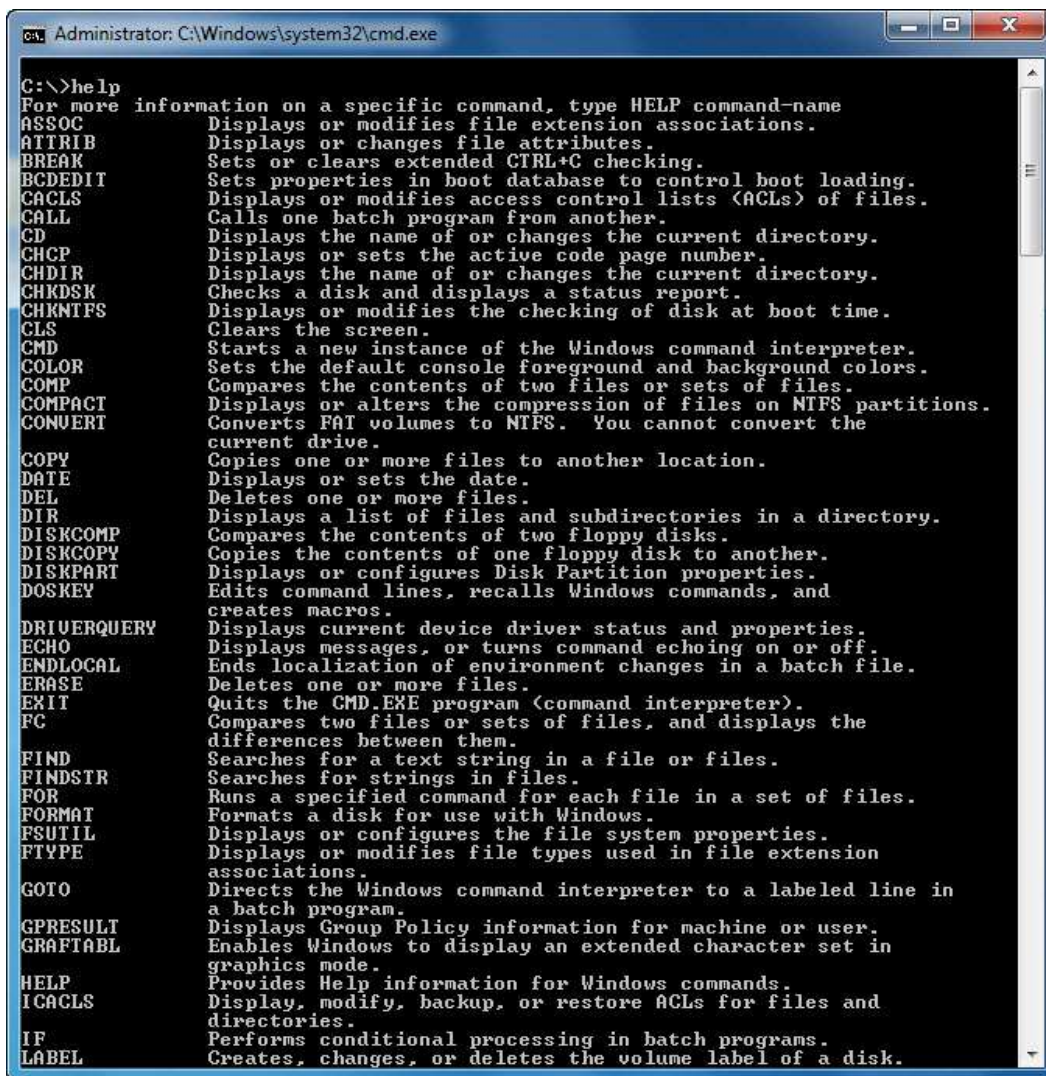
```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>cd ..
C:\Users>cd ..
C:\>
```

What directory are you at now?

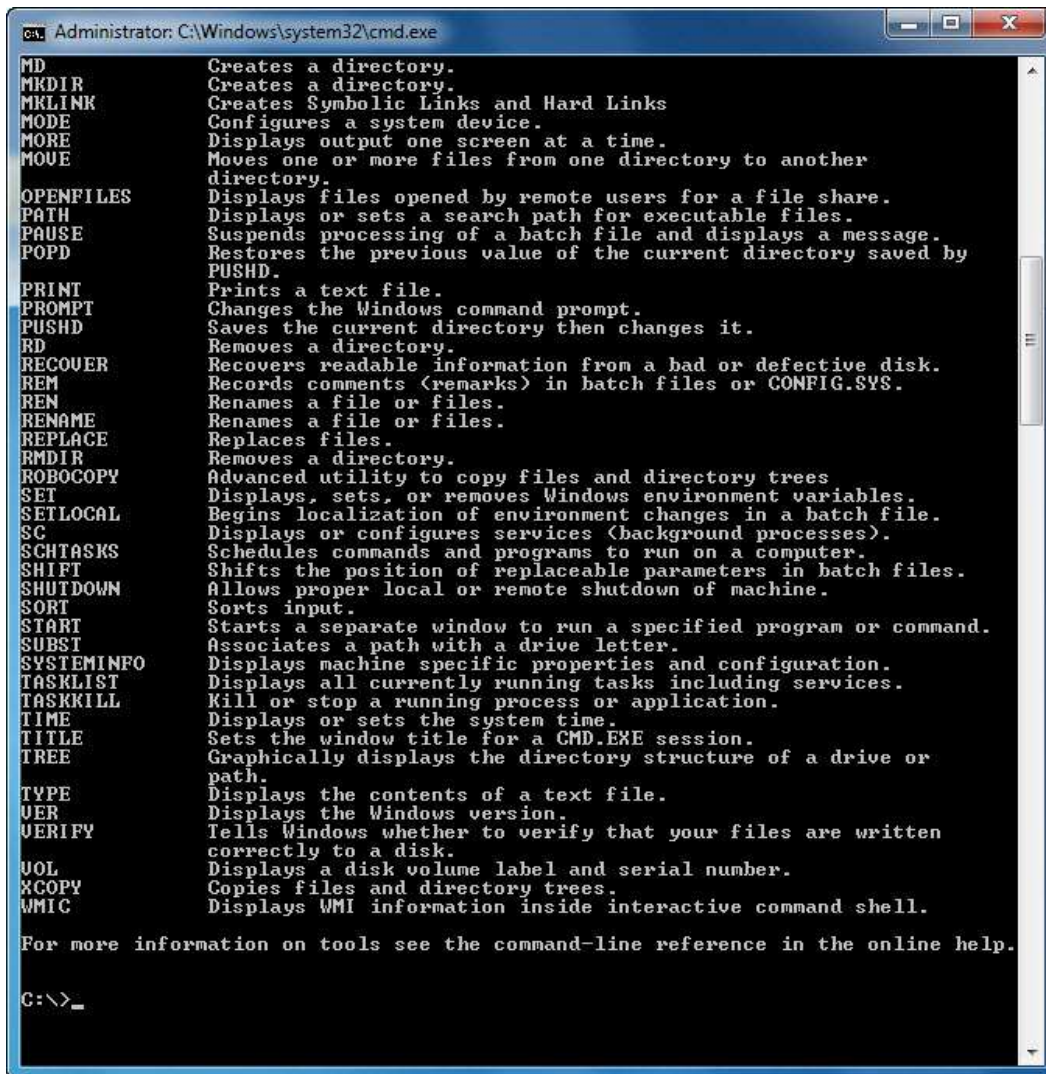
Step 3

At the command prompt, type **help** and then press **Enter**.



```
C:\>help
For more information on a specific command, type HELP command-name
ASSOC      Displays or modifies file extension associations.
ATTRIB     Displays or changes file attributes.
BREAK      Sets or clears extended CTRL+C checking.
BCDEDIT     Sets properties in boot database to control boot loading.
CACLS      Displays or modifies access control lists (ACLs) of files.
CALL       Calls one batch program from another.
CD          Displays the name of or changes the current directory.
CHCP       Displays or sets the active code page number.
CHDIR      Displays the name of or changes the current directory.
CHKDSK     Checks a disk and displays a status report.
CHKNTFS    Displays or modifies the checking of disk at boot time.
CLS        Clears the screen.
CMD        Starts a new instance of the Windows command interpreter.
COLOR      Sets the default console foreground and background colors.
COMP       Compares the contents of two files or sets of files.
COMPACT    Displays or alters the compression of files on NTFS partitions.
CONVERT    Converts FAT volumes to NTFS. You cannot convert the
           current drive.
COPY       Copies one or more files to another location.
DATE       Displays or sets the date.
DEL        Deletes one or more files.
DIR        Displays a list of files and subdirectories in a directory.
DISKCOMP   Compares the contents of two floppy disks.
DISKCOPY   Copies the contents of one floppy disk to another.
DISKPART   Displays or configures Disk Partition properties.
DOSKEY     Edits command lines, recalls Windows commands, and
           creates macros.
DRIVERQUERY Displays current device driver status and properties.
ECHO       Displays messages, or turns command echoing on or off.
ENDLOCAL   Ends localization of environment changes in a batch file.
ERASE      Deletes one or more files.
EXIT       Quits the CMD.EXE program (command interpreter).
FC         Compares two files or sets of files, and displays the
           differences between them.
FIND       Searches for a text string in a file or files.
FINDSTR    Searches for strings in files.
FOR        Runs a specified command for each file in a set of files.
FORMAT     Formats a disk for use with Windows.
FSUTIL     Displays or configures the file system properties.
FTYPE      Displays or modifies file types used in file extension
           associations.
GOTO       Directs the Windows command interpreter to a labeled line in
           a batch program.
GPRESULT   Displays Group Policy information for machine or user.
GRAFTABL   Enables Windows to display an extended character set in
           graphics mode.
HELP       Provides Help information for Windows commands.
ICACLS     Display, modify, backup, or restore ACLs for files and
           directories.
IF         Performs conditional processing in batch programs.
LABEL      Creates, changes, or deletes the volume label of a disk.
```

Note: More commands show on next page.



```
Administrator: C:\Windows\system32\cmd.exe

MD          Creates a directory.
MKDIR       Creates a directory.
MKLINK      Creates Symbolic Links and Hard Links
MODE        Configures a system device.
MORE        Displays output one screen at a time.
MOVE        Moves one or more files from one directory to another
            directory.
OPENFILES   Displays files opened by remote users for a file share.
PATH        Displays or sets a search path for executable files.
PAUSE       Suspends processing of a batch file and displays a message.
POPD        Restores the previous value of the current directory saved by
            PUSH.D.
PRINT       Prints a text file.
PROMPT      Changes the Windows command prompt.
PUSHD       Saves the current directory then changes it.
RD          Removes a directory.
RECOVER     Recovers readable information from a bad or defective disk.
REM         Records comments (remarks) in batch files or CONFIG.SYS.
REN         Renames a file or files.
RENAME      Renames a file or files.
REPLACE     Replaces files.
RMDIR       Removes a directory.
ROBOCOPY    Advanced utility to copy files and directory trees
SET         Displays, sets, or removes Windows environment variables.
SETLOCAL    Begins localization of environment changes in a batch file.
SC          Displays or configures services (background processes).
SCHEDULETASKS Schedules commands and programs to run on a computer.
SHIFT       Shifts the position of replaceable parameters in batch files.
SHUTDOWN    Allows proper local or remote shutdown of machine.
SORT        Sorts input.
START       Starts a separate window to run a specified program or command.
SUBST       Associates a path with a drive letter.
SYSTEMINFO  Displays machine specific properties and configuration.
TASKLIST    Displays all currently running tasks including services.
TASKKILL    Kill or stop a running process or application.
TIME        Displays or sets the system time.
TITLE       Sets the window title for a CMD.EXE session.
TREE        Graphically displays the directory structure of a drive or
            path.
TYPE        Displays the contents of a text file.
VER         Displays the Windows version.
VERIFY      Tells Windows whether to verify that your files are written
            correctly to a disk.
VOL         Displays a disk volume label and serial number.
XCOPY       Copies files and directory trees.
WMIC        Displays WMI information inside interactive command shell.

For more information on tools see the command-line reference in the online help.

C:\>_
```

Explain what the following commands do.

ATTRIB:

CD or CHDIR:

CLS:

COPY:

DEL:

DIR:

EXIT:

MD or MKDIR:

Move:

RD or RMDIR:

ROBOCOPY (Note, this command only works in Windows Vista and Windows 7):

XCOPY:

Step 4

At the command prompt, type **dir** and then press **Enter**.



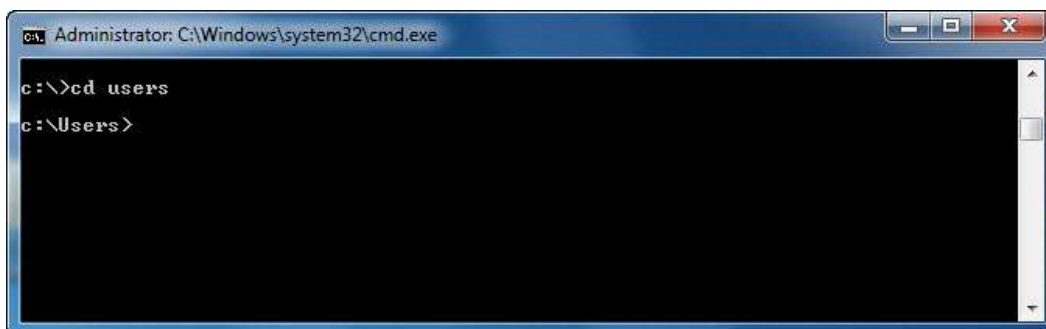
```
Administrator: C:\Windows\system32\cmd.exe
07/13/2009 07:37 PM <DIR> PerfLogs
09/17/2012 08:59 PM <DIR> Program Files
07/10/2012 01:31 PM <DIR> Sandbox
09/11/2012 03:35 PM <DIR> Users
04/11/2008 10:07 AM 5,686 vcredist.bmp
04/11/2008 10:09 AM 3,797,292 UC_RED.cab
04/11/2008 10:11 AM 233,472 UC_RED.MSI
10/02/2012 06:26 AM <DIR> Windows
28 File(s) 5,578,159 bytes
10 Dir(s) 451,974,737,920 bytes free

c:\>
```

Note: For Windows XP, replace Users with Documents and Settings. You will need to do this for the rest of the lab.

Is there a directory (DIR) called Users?

At the command prompt, type **cd users** and then press **Enter**.



```
Administrator: C:\Windows\system32\cmd.exe

c:\>cd users
c:\Users>
```

At the command prompt, type **dir** and then press **Enter**.


```
Administrator: C:\Windows\system32\cmd.exe
Volume Serial Number is 8A89-4C5F

Directory of c:\Users

09/11/2012 03:35 PM <DIR>      .
09/11/2012 03:35 PM <DIR>      ..
09/07/2012 01:36 PM <DIR>      Administrator
09/11/2012 03:35 PM <DIR>      DefaultAppPool
04/11/2011 07:21 PM <DIR>      Public
06/18/2012 02:27 PM <DIR>      SBC
               0 File(s)              0 bytes
               6 Dir(s)  451,973,898,240 bytes free

c:\Users>
```

Is there a directory listed for the account you are logged on to the computer with?

What is that account name?

At the command prompt, change to the account name in which you are logged on. Example: Type **cd administrator**, and then press **Enter**.

```
Administrator: C:\Windows\system32\cmd.exe

Directory of c:\Users

09/11/2012 03:35 PM <DIR>      .
09/11/2012 03:35 PM <DIR>      ..
09/07/2012 01:36 PM <DIR>      Administrator
09/11/2012 03:35 PM <DIR>      DefaultAppPool
04/11/2011 07:21 PM <DIR>      Public
06/18/2012 02:27 PM <DIR>      SBC
               0 File(s)              0 bytes
               6 Dir(s)  451,973,898,240 bytes free

c:\Users>cd administrator
c:\Users\Administrator>
```

At the command prompt, type **dir** and then press **Enter**.

```
Administrator: C:\Windows\system32\cmd.exe

c:\Users\Administrator>dir
Volume in drive C has no label.
Volume Serial Number is 8A89-4C5F

Directory of c:\Users\Administrator

09/07/2012 01:36 PM <DIR>      .
09/07/2012 01:36 PM <DIR>      ..
09/04/2012 09:13 PM <DIR>      .android
10/03/2012 12:48 PM <DIR>      192 .packettracer
10/03/2012 01:12 PM <DIR>      Aspire-CANA
09/07/2012 01:41 PM <DIR>      Cisco Packet Tracer 5.3.3
09/14/2012 11:57 AM <DIR>      Contacts
10/03/2012 08:35 PM <DIR>      Desktop
09/11/2012 05:28 PM <DIR>      Documents
09/17/2012 08:57 PM <DIR>      Downloads
09/14/2012 11:57 AM <DIR>      Favorites
09/14/2012 11:57 AM <DIR>      Links
09/11/2012 09:02 PM <DIR>      Music
07/11/2012 09:47 AM <DIR>      Pictures
09/14/2012 11:57 AM <DIR>      Saved Games
09/14/2012 11:57 AM <DIR>      Searches
07/11/2012 09:47 AM <DIR>      Videos
               1 File(s)              192 bytes
              16 Dir(s)  451,973,804,032 bytes free

c:\Users\Administrator>
```

Notice there is a directory called “Desktop”.

At the command prompt, type **cd desktop** and then press **Enter**.



```
Administrator: C:\Windows\system32\cmd.exe

c:\Users\Administrator>cd desktop
c:\Users\Administrator\Desktop>
```

At the command prompt, type **cd c:** and then press **Enter**.

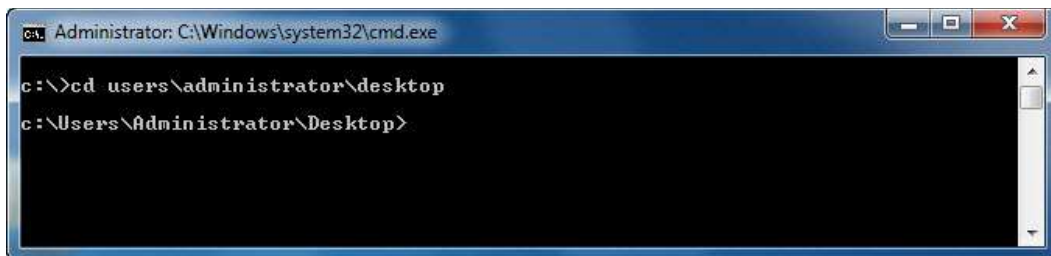


```
Administrator: C:\Windows\system32\cmd.exe

c:\Users\Administrator>cd desktop
c:\Users\Administrator\Desktop>cd c:\
c:\>
```

At the command prompt, type **cd user/administrator/desktop** and then press **Enter**.

Note: Change “administrator” with the name you are logged onto the computer.

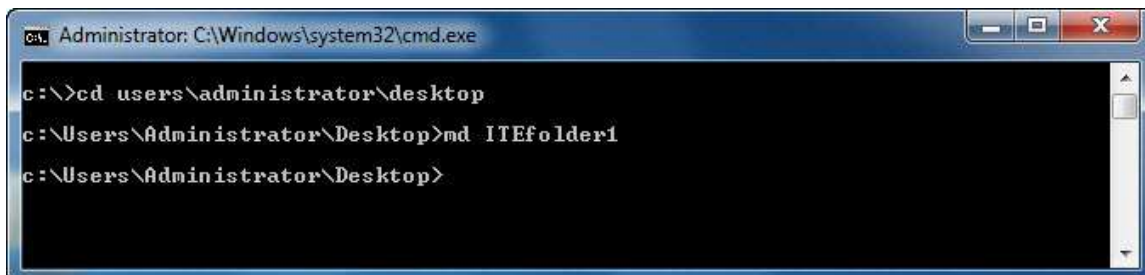


```
Administrator: C:\Windows\system32\cmd.exe

c:\>cd users\administrator\desktop
c:\Users\Administrator\Desktop>
```

Step 5

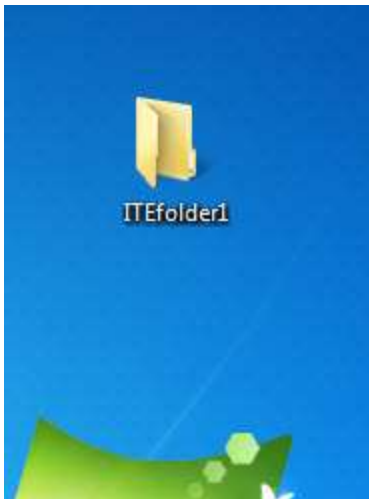
At the command prompt, type **md ITEfolder1** and then press **Enter**.



```
Administrator: C:\Windows\system32\cmd.exe

c:\>cd users\administrator\desktop
c:\Users\Administrator\Desktop>md ITEfolder1
c:\Users\Administrator\Desktop>
```

Look at the “Desktop”.



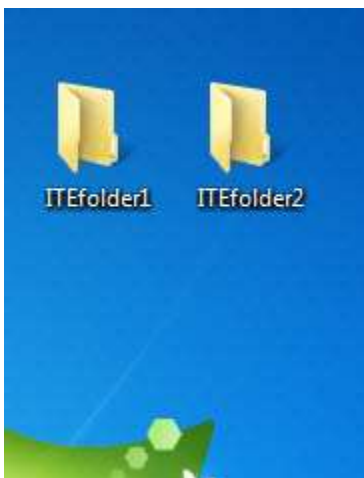
What do you see?

Make another folder at the "Desktop".

```
Administrator: C:\Windows\system32\cmd.exe

c:\>cd users\administrator\desktop
c:\Users\Administrator\Desktop>md ITEfolder1
c:\Users\Administrator\Desktop>md ITEfolder2
c:\Users\Administrator\Desktop>
```

At the command prompt, type **md ITEfolder2** and then press **Enter**.

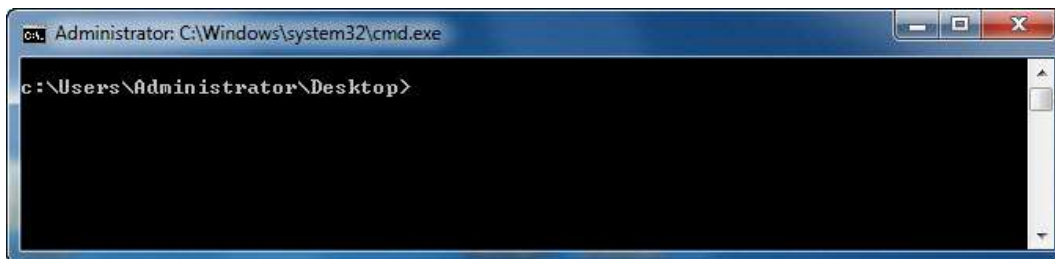


Do you now have two folders at the "Desktop" labeled "ITEfolder1" and "ITEfolder2"?

If not, ask the instructor for assistance.

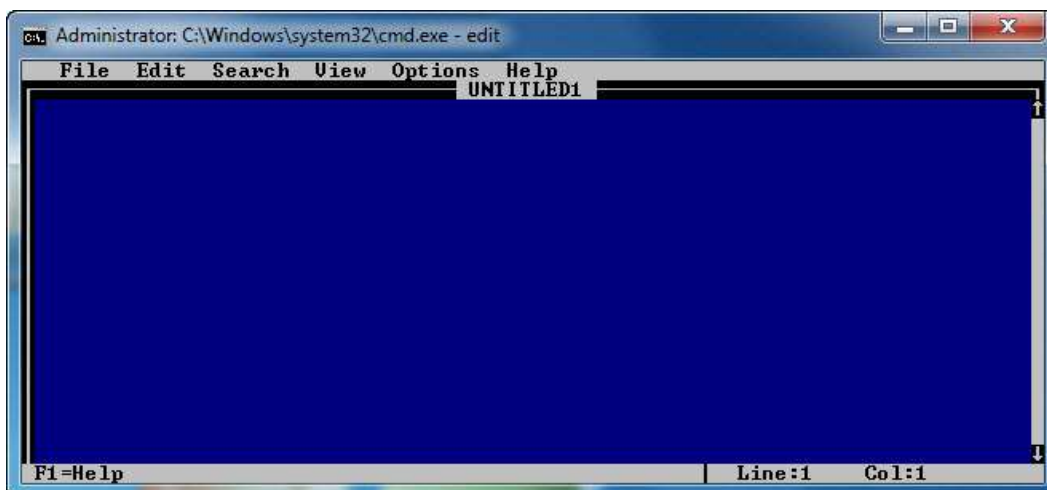
Step 6

At the command prompt, type **cls** and then press **Enter**.



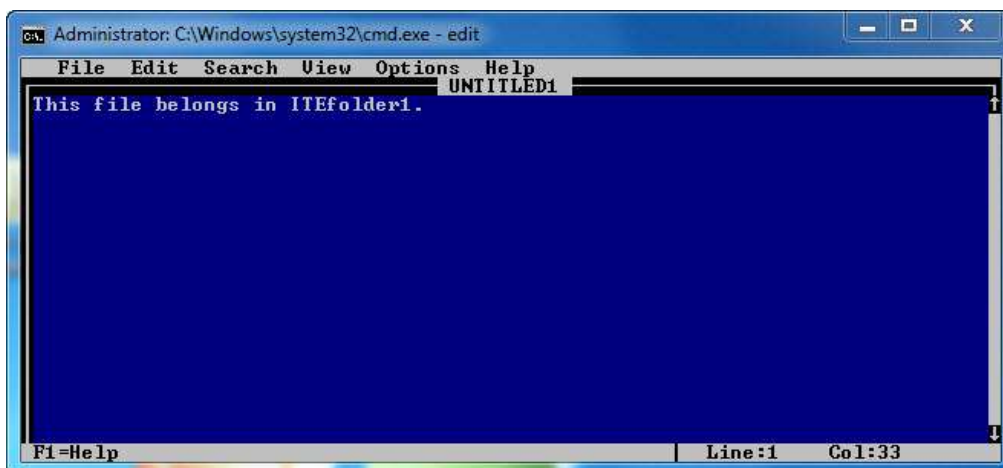
What happened?

Now you will make a file and save it to ITEfolder1.

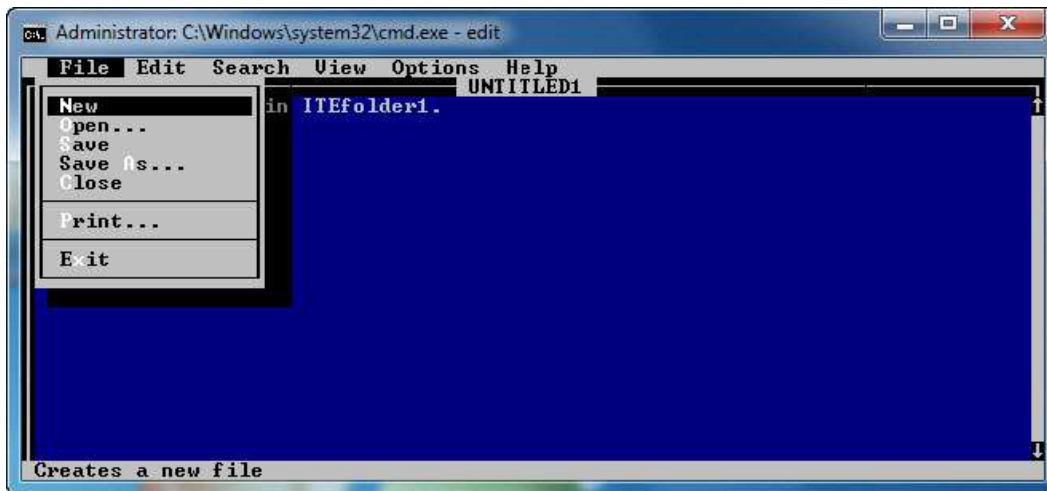


At the command prompt, type **edit** and then press **Enter**.

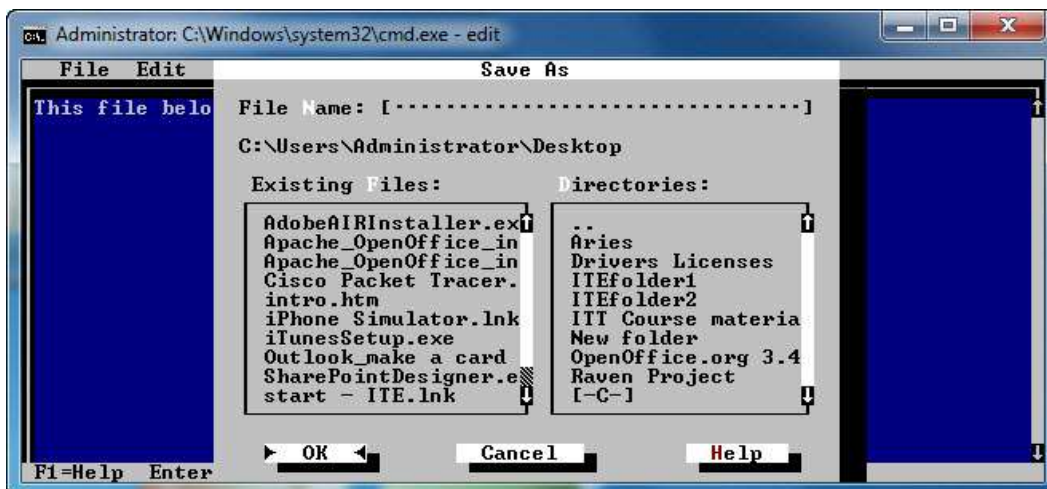
In the DOS editor, type **This file belongs in ITEfolder1.**



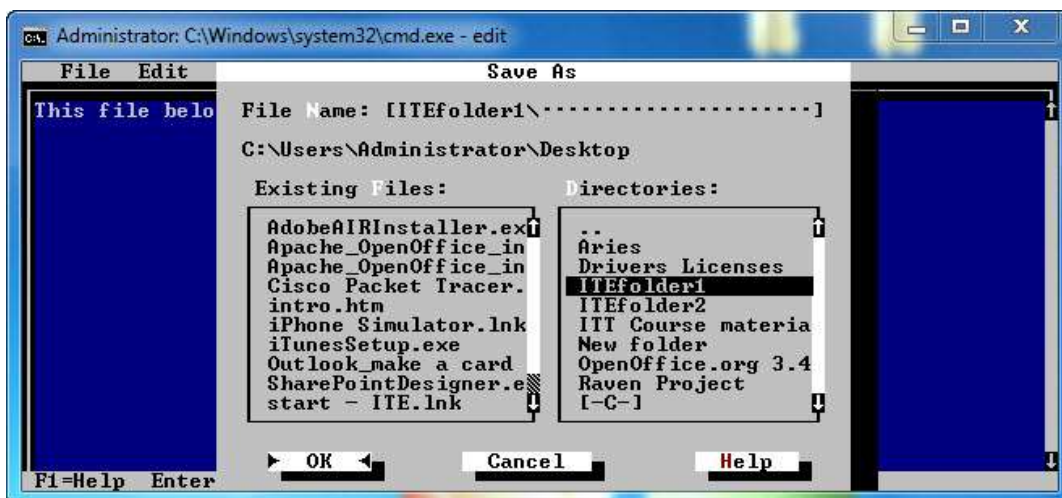
Press the following key combination **Alt** and **F** at the same time.



When the "File" menu opens, press the **A** key.



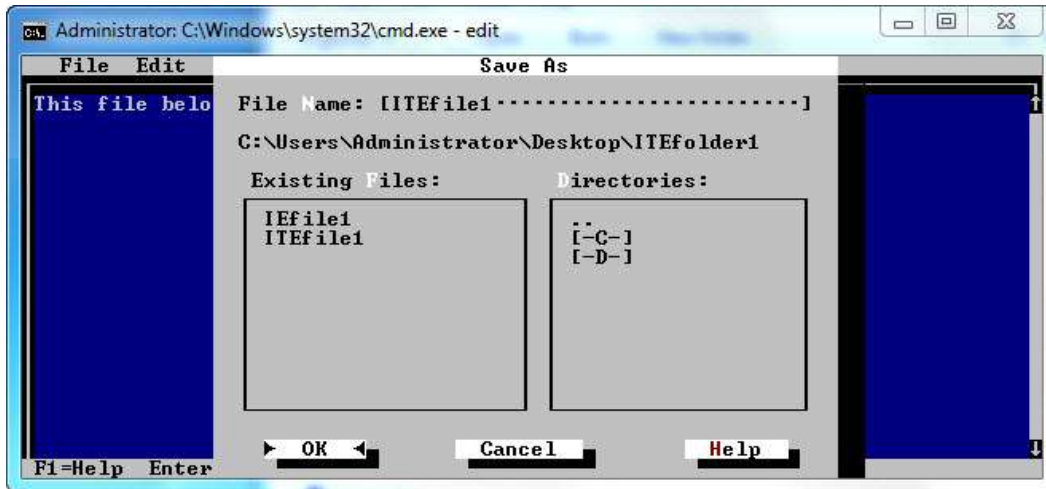
Press the following key combination **Alt** and **D**, and then press the down arrow key until the folder **ITEfolder1** is selected.



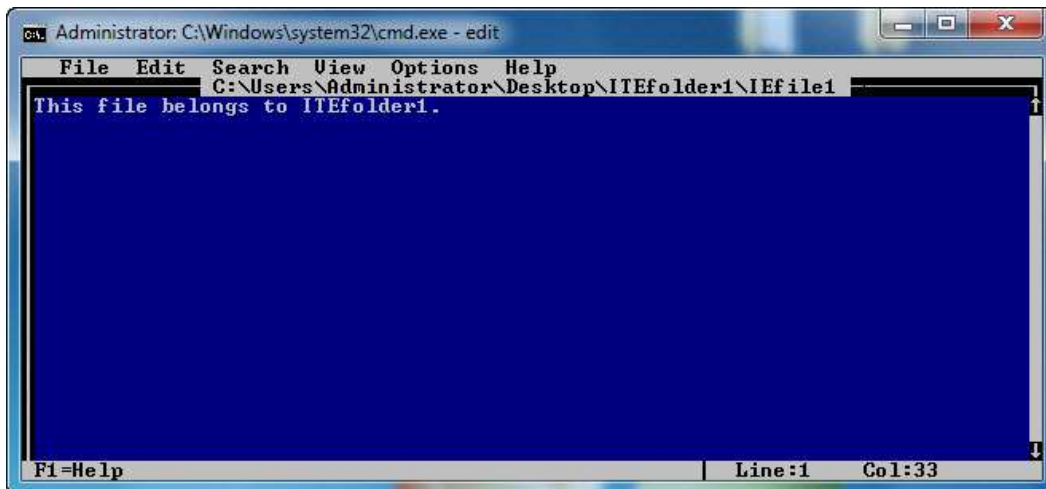
Press **Enter**.

Press the **Tab** key four times, until the cursor is located at the "File Name:" field.

Type the "File Name:" **ITEfile1**.

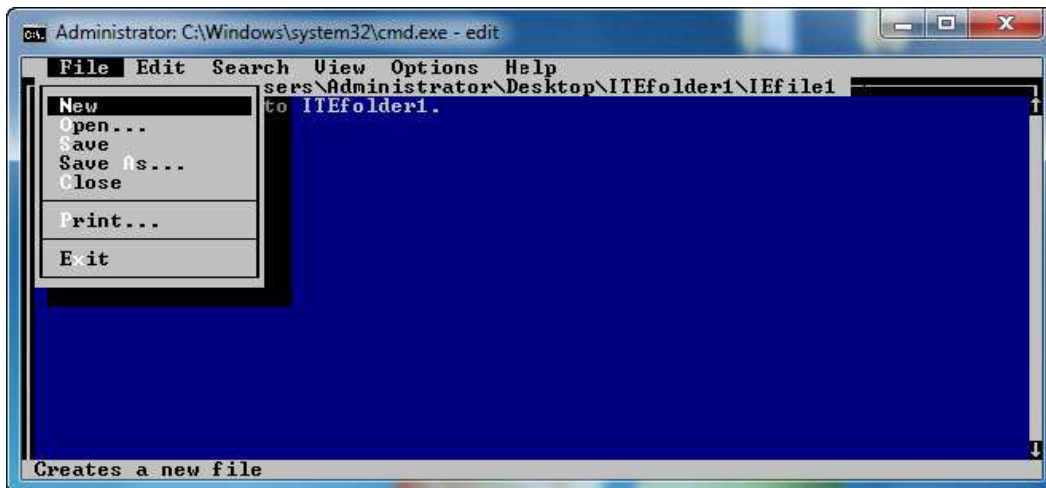


Press **Enter**.



Where is the file saved ?

Press **Alt** and **F**, and then press **X**.



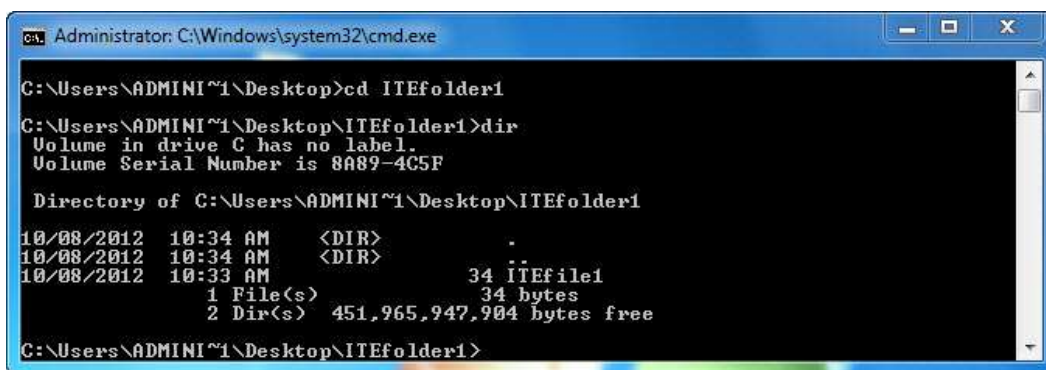
Open the "ITEfolder1" on the "Desktop".



What do you notice?

Step 7

At the command prompt, type **cls** and then press **Enter**.



At the command prompt, type **cd ITEfolder1**, press **Enter**, and then type **dir**.

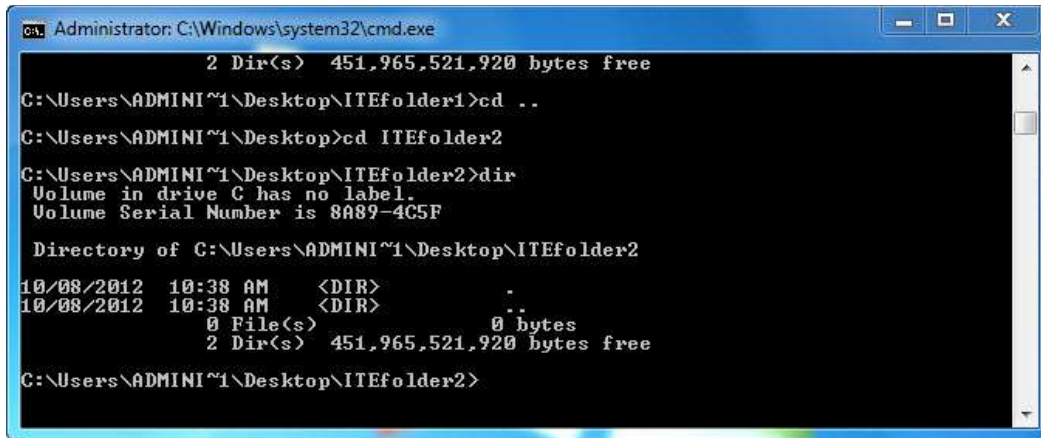
How many files are listed?

What is the size of the file?

At the command prompt, type **cd ..** and then press **Enter**.

Type **cd ITEfolder2** and then press **Enter**.

Type **dir** and then press **Enter**.



```
Administrator: C:\Windows\system32\cmd.exe

2 Dir(s)  451,965,521,920 bytes free

C:\Users\ADMINI~1\Desktop\ITEfolder1>cd ..
C:\Users\ADMINI~1\Desktop>cd ITEfolder2
C:\Users\ADMINI~1\Desktop\ITEfolder2>dir
Volume in drive C has no label.
Volume Serial Number is 8A89-4C5F

Directory of C:\Users\ADMINI~1\Desktop\ITEfolder2

10/08/2012  10:38 AM    <DIR>          .
10/08/2012  10:38 AM    <DIR>          ..
               0 File(s)                0 bytes
               2 Dir(s)  451,965,521,920 bytes free

C:\Users\ADMINI~1\Desktop\ITEfolder2>
```

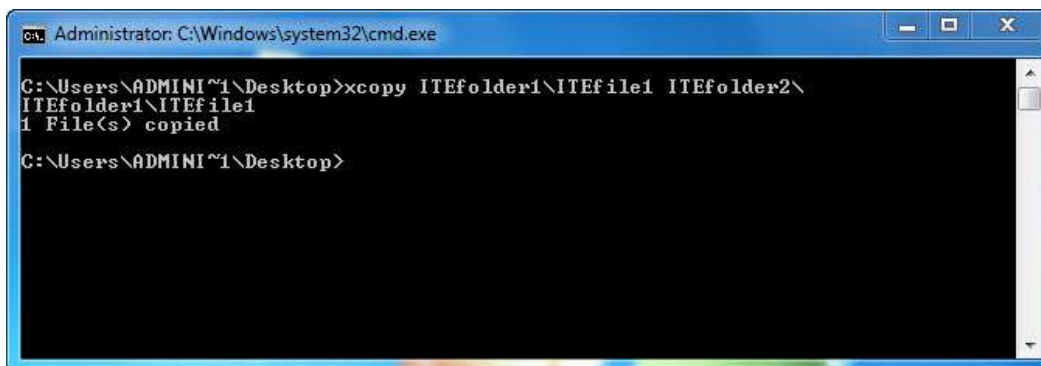
How many files are listed?

Step 8

Type **cd ..** and then press **Enter**.

Type **cd ..** and then press **Enter**.

At the command prompt, type **cls**.



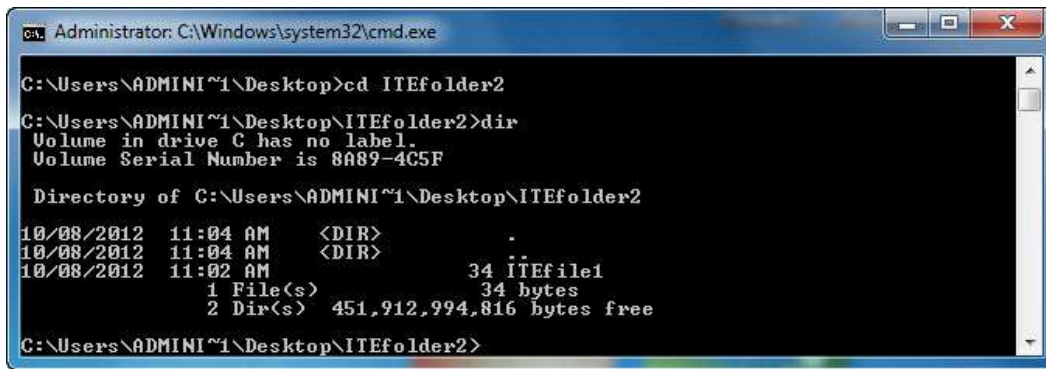
```
Administrator: C:\Windows\system32\cmd.exe

C:\Users\ADMINI~1\Desktop>xcopy ITEfolder1\ITEfile1 ITEfolder2\
ITEfolder1\ITEfile1
1 File(s) copied

C:\Users\ADMINI~1\Desktop>
```

At the command prompt, type **xcopy ITEfolder1\ITEfile1 ITEfolder2**.

How many files were copied?



```
Administrator: C:\Windows\system32\cmd.exe

C:\Users\ADMINI~1\Desktop>cd ITEfolder2
C:\Users\ADMINI~1\Desktop\ITEfolder2>dir
Volume in drive C has no label.
Volume Serial Number is 8A89-4C5F

Directory of C:\Users\ADMINI~1\Desktop\ITEfolder2

10/08/2012  11:04 AM    <DIR>          .
10/08/2012  11:04 AM    <DIR>          ..
10/08/2012  11:02 AM                34 ITEfile1
               1 File(s)                34 bytes
               2 Dir(s)  451,912,994,816 bytes free

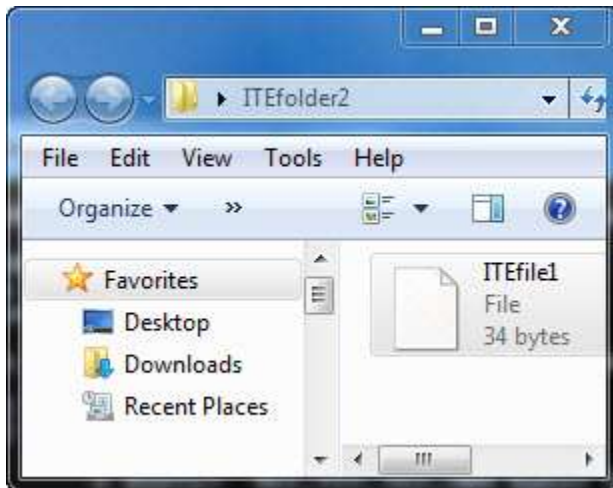
C:\Users\ADMINI~1\Desktop\ITEfolder2>
```

Type **cd ITEfolder2** and press **Enter**, then type **dir**, and then press **Enter**.

How many files are listed?

What is the size of the file?

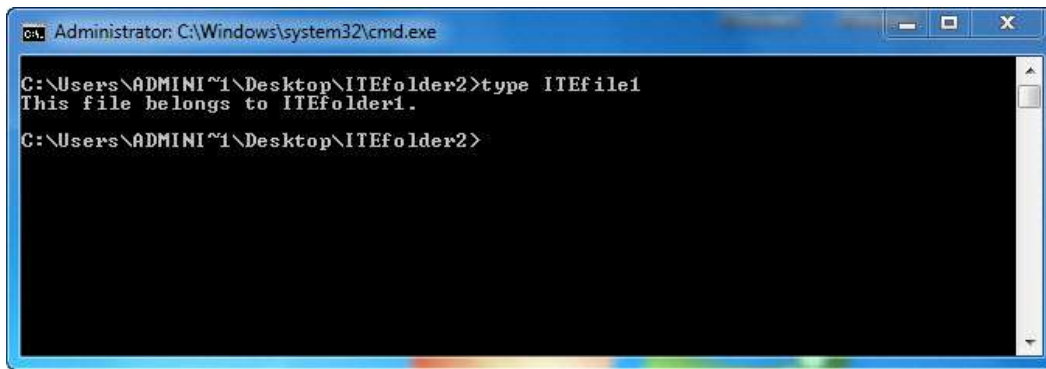
Open the “ITEfolder2” on the Desktop.



What do you notice?

Step 9

At the command prompt, type **cls** and then press **Enter**.



```
Administrator: C:\Windows\system32\cmd.exe

C:\Users\ADMINI~1\Desktop\ITEfolder2>type ITEfile1
This file belongs to ITEfolder1.

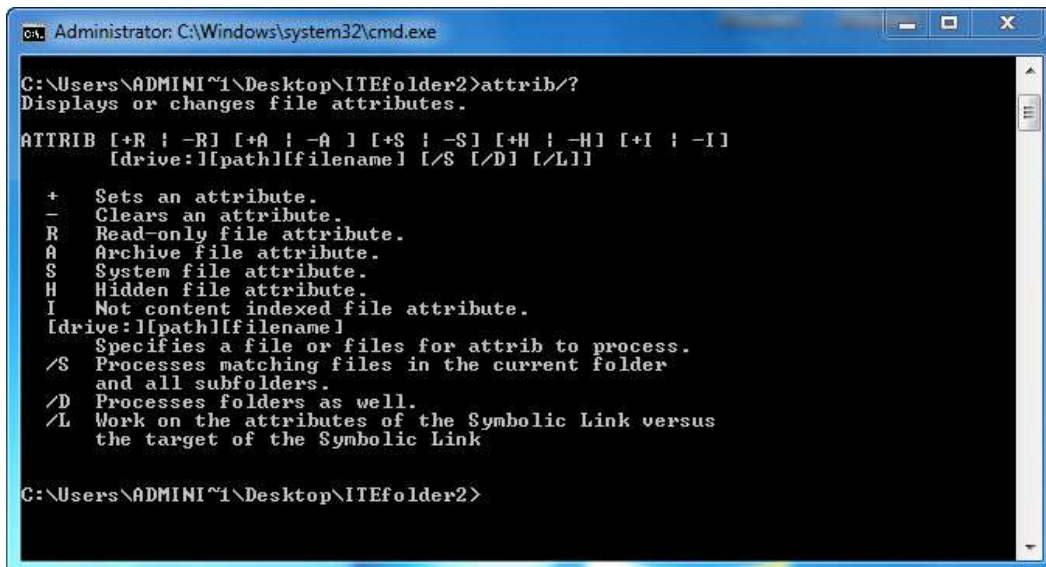
C:\Users\ADMINI~1\Desktop\ITEfolder2>
```

Type **type ITEfile1** and then press **Enter**.

What is displayed after the command you just typed?

Step 10

At the command prompt, type **attrib/?** and then press **Enter**.



```
Administrator: C:\Windows\system32\cmd.exe

C:\Users\ADMINI~1\Desktop\ITEfolder2>attrib/?
Displays or changes file attributes.

ATTRIB [+R | -R] [+A | -A ] [+S | -S] [+H | -H] [+I | -I]
        [drive:] [path] [filename] [/S [/D] [/L]]

+      Sets an attribute.
-      Clears an attribute.
R      Read-only file attribute.
A      Archive file attribute.
S      System file attribute.
H      Hidden file attribute.
I      Not content indexed file attribute.
[drive:] [path] [filename]
        Specifies a file or files for attrib to process.
/S     Processes matching files in the current folder
        and all subfolders.
/D     Processes folders as well.
/L     Work on the attributes of the Symbolic Link versus
        the target of the Symbolic Link

C:\Users\ADMINI~1\Desktop\ITEfolder2>
```

Define the following attributes:

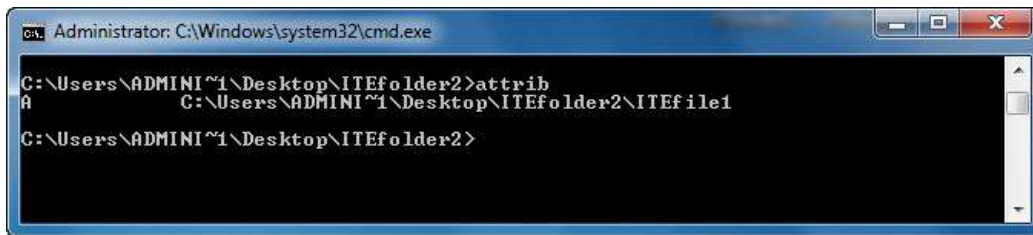
R –

A –

S –

H –

At the command prompt, type **attrib** and then press **Enter**.

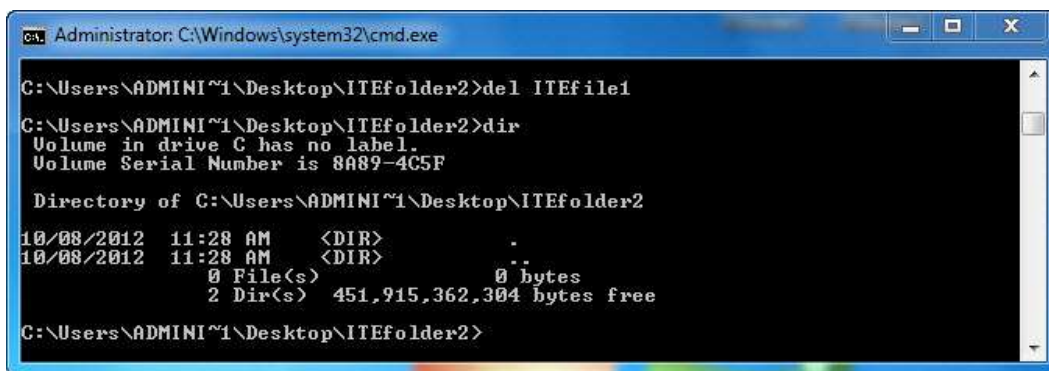


```
Administrator: C:\Windows\system32\cmd.exe
C:\Users\ADMINI~1\Desktop\ITEfolder2>attrib
A C:\Users\ADMINI~1\Desktop\ITEfolder2\ITEfile1
C:\Users\ADMINI~1\Desktop\ITEfolder2>
```

What attribute does the ITEfile1 file have?

Step 11

At the command prompt, type **cls** and then press **Enter**.



```
Administrator: C:\Windows\system32\cmd.exe
C:\Users\ADMINI~1\Desktop\ITEfolder2>del ITEfile1
C:\Users\ADMINI~1\Desktop\ITEfolder2>dir
Volume in drive C has no label.
Volume Serial Number is 8A89-4C5F

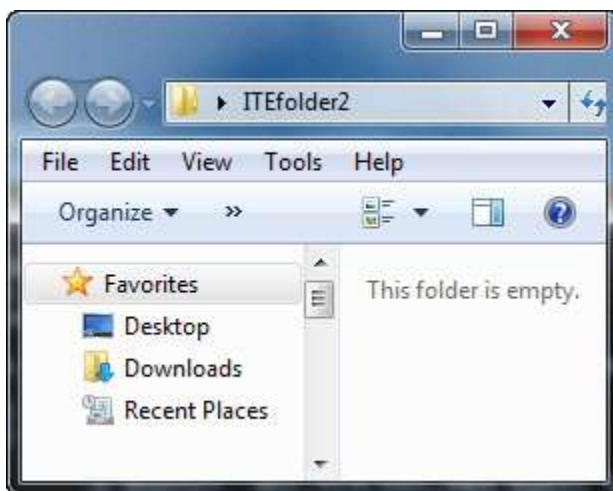
Directory of C:\Users\ADMINI~1\Desktop\ITEfolder2

10/08/2012  11:28 AM    <DIR>          .
10/08/2012  11:28 AM    <DIR>          ..
               0 File(s)                0 bytes
               2 Dir(s)  451,915,362,304 bytes free
C:\Users\ADMINI~1\Desktop\ITEfolder2>
```

Type **del ITEfile1**, press **Enter**, type **dir**, and press **Enter**.

Is the “ITEfile1” file still listed in the directory?

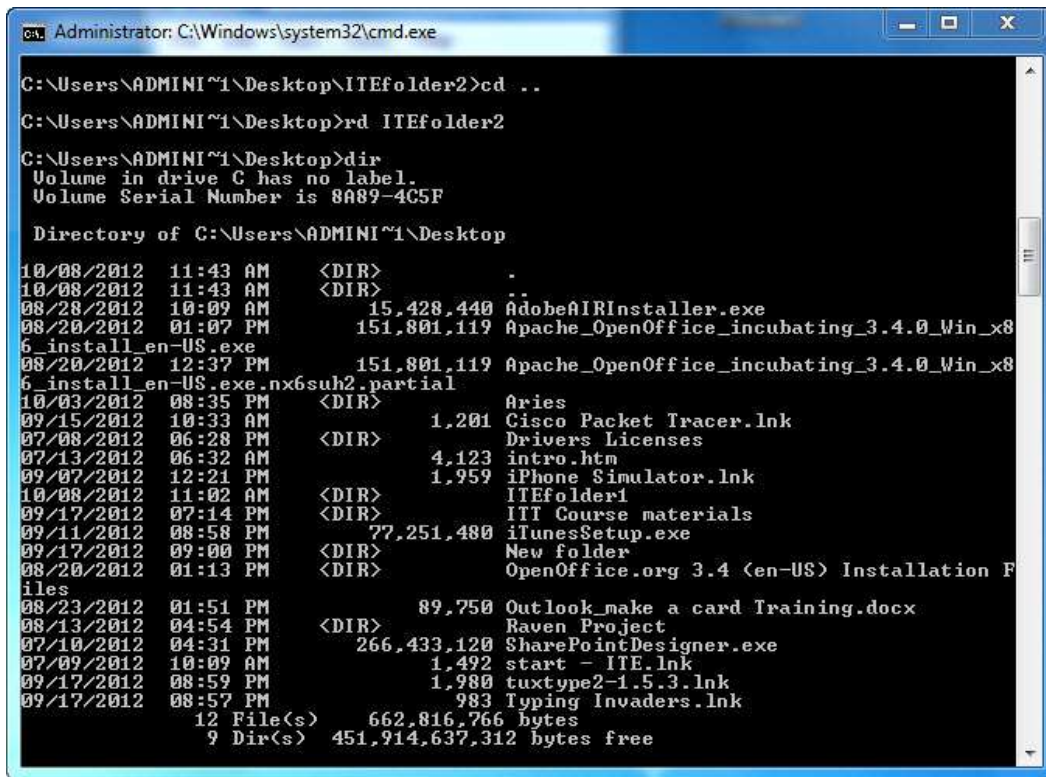
Open the “ITEfolder2” on the Desktop.



What do you notice?

At the command prompt, type **cd ..** and then press **Enter**.

Type **rd ITEfolder2** and then press **Enter**.



```
Administrator: C:\Windows\system32\cmd.exe

C:\Users\ADMINI~1\Desktop\ITEfolder2>cd ..
C:\Users\ADMINI~1\Desktop>rd ITEfolder2
C:\Users\ADMINI~1\Desktop>dir
Volume in drive C has no label.
Volume Serial Number is 8A89-4C5F

Directory of C:\Users\ADMINI~1\Desktop

10/08/2012  11:43 AM    <DIR>          .
10/08/2012  11:43 AM    <DIR>          ..
08/28/2012  10:09 AM             15,428,440  AdobeAIRInstaller.exe
08/20/2012  01:07 PM             151,801,119  Apache_OpenOffice_incubating_3.4.0_Win_x8
6_install_en-US.exe
08/20/2012  12:37 PM             151,801,119  Apache_OpenOffice_incubating_3.4.0_Win_x8
6_install_en-US.exe.nx6suh2.partial
10/03/2012  08:35 PM    <DIR>          Aries
09/15/2012  10:33 AM             1,201  Cisco Packet Tracer.lnk
07/08/2012  06:28 PM    <DIR>          Drivers Licenses
07/13/2012  06:32 AM             4,123  intro.htm
09/07/2012  12:21 PM             1,959  iPhone Simulator.lnk
10/08/2012  11:02 AM    <DIR>          ITEfolder1
09/17/2012  07:14 PM    <DIR>          ITI Course materials
09/11/2012  08:58 PM             77,251,480  iTunesSetup.exe
09/17/2012  09:00 PM    <DIR>          New folder
08/20/2012  01:13 PM    <DIR>          OpenOffice.org 3.4 (en-US) Installation F
iles
08/23/2012  01:51 PM             89,750  Outlook_make a card Training.docx
08/13/2012  04:54 PM    <DIR>          Raven Project
07/10/2012  04:31 PM             266,433,120  SharePointDesigner.exe
07/09/2012  10:09 AM             1,492  start - ITE.lnk
09/17/2012  08:59 PM             1,980  tuxtype2-1.5.3.lnk
09/17/2012  08:57 PM             983  Typing Invaders.lnk
12 File(s)          662,816,766 bytes
 9 Dir(s)          451,914,637,312 bytes free
```

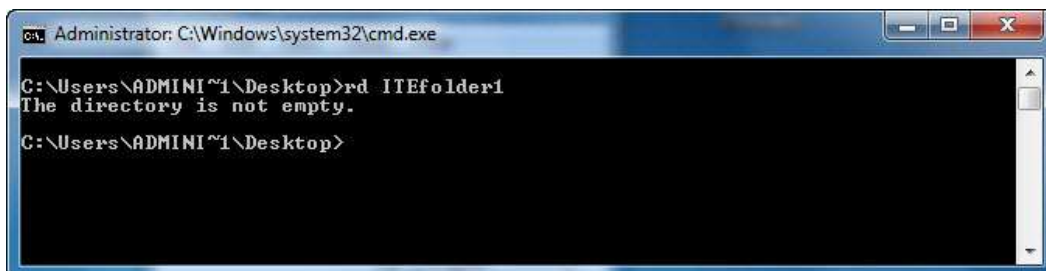
Type **dir** and then press **Enter**.

Is folder “ITEfolder2” listed?

Is folder “ITEfolder2” shown on the “Desktop”?

Step 12

At the command prompt, type **cls** and then press **Enter**.



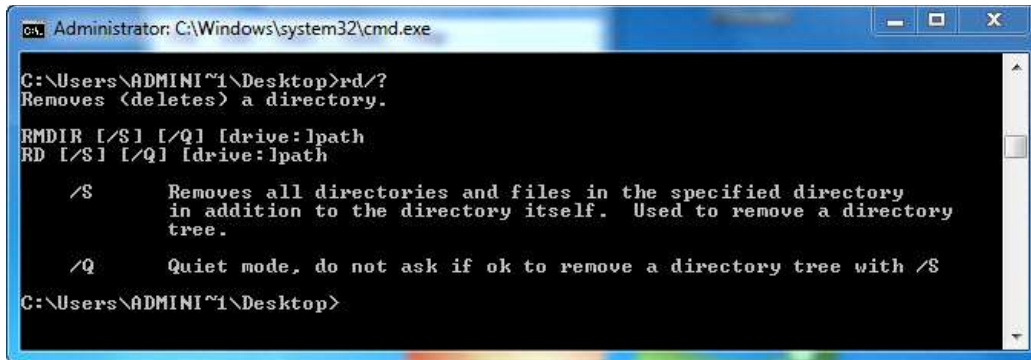
```
Administrator: C:\Windows\system32\cmd.exe

C:\Users\ADMINI~1\Desktop>rd ITEfolder1
The directory is not empty.
C:\Users\ADMINI~1\Desktop>
```

Type **rd ITEfolder1** and then press **Enter**.

What message do you get?

Type **rd/?**.



```
Administrator: C:\Windows\system32\cmd.exe

C:\Users\ADMINI~1\Desktop>rd/?
Removes (deletes) a directory.

RMDIR [/S] [/Q] [drive:]path
RD [/S] [/Q] [drive:]path

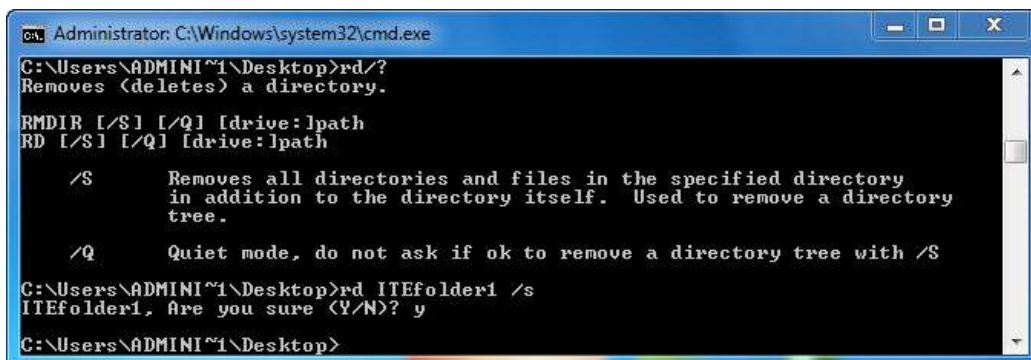
    /S      Removes all directories and files in the specified directory
            in addition to the directory itself. Used to remove a directory
            tree.

    /Q      Quiet mode, do not ask if ok to remove a directory tree with /S

C:\Users\ADMINI~1\Desktop>
```

What letter can you add to “RD” so all files and the directory are removed?

Type **rd ITEfolder1 /s** and then press **Enter**.



```
Administrator: C:\Windows\system32\cmd.exe

C:\Users\ADMINI~1\Desktop>rd/?
Removes (deletes) a directory.

RMDIR [/S] [/Q] [drive:]path
RD [/S] [/Q] [drive:]path

    /S      Removes all directories and files in the specified directory
            in addition to the directory itself. Used to remove a directory
            tree.

    /Q      Quiet mode, do not ask if ok to remove a directory tree with /S

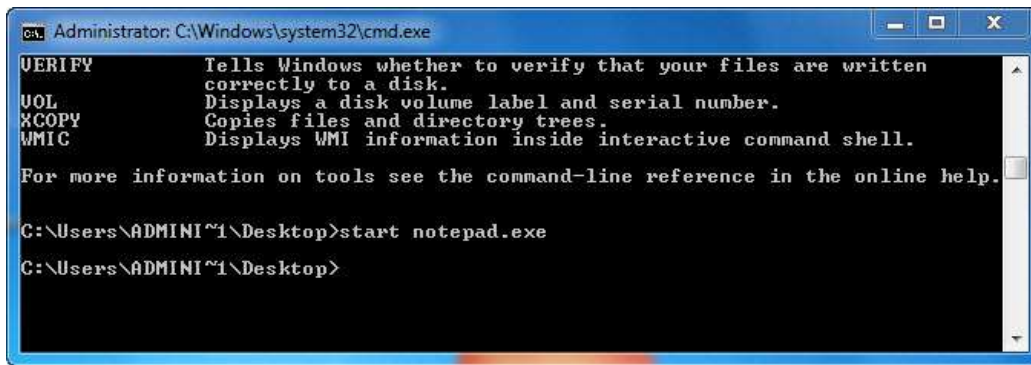
C:\Users\ADMINI~1\Desktop>rd ITEfolder1 /s
ITEfolder1. Are you sure (Y/N)? y
C:\Users\ADMINI~1\Desktop>
```

When prompted, type **Y** and press **Enter**.

Is folder “ITEfolder1” shown on the “Desktop”?

Step 13

At the command prompt, type **cls** and then press **Enter**.



```
Administrator: C:\Windows\system32\cmd.exe

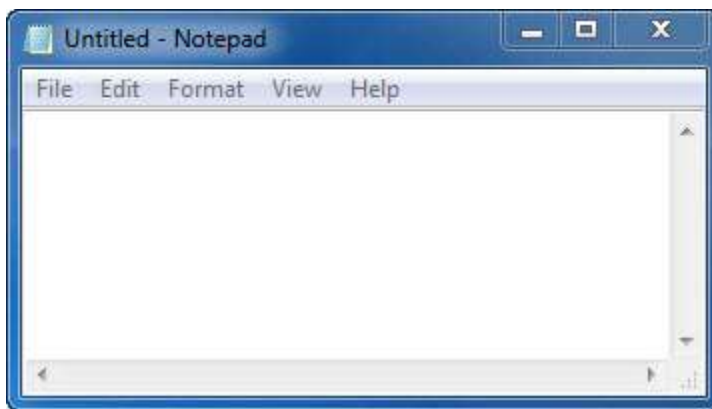
VERIFY      Tells Windows whether to verify that your files are written
            correctly to a disk.
VOLUME      Displays a disk volume label and serial number.
XCOPY       Copies files and directory trees.
WMIC        Displays WMI information inside interactive command shell.

For more information on tools see the command-line reference in the online help.

C:\Users\ADMINI~1\Desktop>start notepad.exe
C:\Users\ADMINI~1\Desktop>
```

Type **start notepad.exe** and press **Enter**.

What happens?



At the command prompt, type **tasklist** and then press **Enter**.



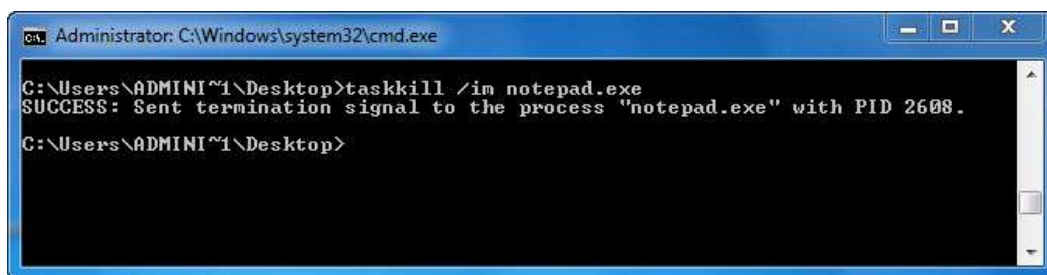
```
Administrator: C:\Windows\system32\cmd.exe

conhost.exe           2748 Console           1      4,684 K
ntudm.exe             2100 Console           1      4,140 K
notepad.exe           2608 Console           1      4,928 K
tasklist.exe          1584 Console           1      4,312 K
WmiPrvSE.exe          2384 Services          0      4,836 K

C:\Users\ADMINI~1\Desktop>
```

Is Notepad listed?

Type **taskkill /im notepad.exe** and press **Enter**.



```
Administrator: C:\Windows\system32\cmd.exe

C:\Users\ADMINI~1\Desktop>taskkill /im notepad.exe
SUCCESS: Sent termination signal to the process "notepad.exe" with PID 2608.
C:\Users\ADMINI~1\Desktop>
```

What happens?