Lab 8

**Due date: at the end of your lab period**

**Evaluation**

* 10 Marks.
* **Make sure you answer the questions in part 1 (in red).**

**Procedure**

Start the Windows **Command Prompt** and type in the following commands to see what they do.

***Part 1:***

***Exercise #1***: Command: CD

1. **Type in: CD /?**

Read the help pages for the **cd** command. What is the purpose/output of **cd** command?

Allows you to move between directories (files and folders) in order to find specific files.

Moves forward 🡪 in directories

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***Exercise #2***: command cd..

Type the following command and press **Enter**

1. **Type in: cd.. /?**

Read the help pages for the **cd..** Command. What is the purpose/output of **cd..** Command?

Allows you to move between directories (files and folders) in order to find specific files.

Moves backward 🡨 in directories

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***Exercise #3***: command ***dir***

Type the following command and press **Enter**

1. **Type in: dir /?**

Read the help pages for the **dir** command. What is the purpose/output of **dir** command?

Shows all available directories in the cd you called the command in.

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***Exercise #4***: **whoami**

Type the following command and press **Enter**

1. **Type in: whoami /?**

Read the help pages for the **whoami** command. What is the purpose/output of **whoami** command?

Displays what user the command prompt was run under and gives the userID.

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***Exercise #5***: **cls**

Type the following command and press **Enter**

**Type in: cls /?**

Read the help pages for the **cls** command. What is the purpose/output of **cls** command?

Clears the command prompt window of any previous commands or text. Starts fresh.

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***Exercise #6***: **echo**

Type the following command and press **Enter**

**Type in: echo /?**

Read the help pages for the **echo** command. What is the purpose/output of **echo** command?

Displays if echo is on or off, or turns command-echoing on or off.

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***Exercise #7***: **exit**

Type the following command and press Enter

**Type in: exit /?**

Read the help pages for the **echo** command. What is the purpose/output of the **exit** command?

Closes command prompt. Exits the program.

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***Exercise #8***: **net**

Type the following command and press **Enter**

1. **Type in: net /?**

Read the help pages for the **net** command. What is the purpose/output of **net** command?

The keyword NET specifies Windows commands. Gives other options such as accounts, config, computer, file, etc.

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Exercise #9 ipconfig

Type the following command and press Enter

**Type in: ipconfig /?**

Read the help pages for the ipconfig command. What is the purpose/output of the ipconfig command?

Gives information about your ip and allows you to see all connections connected to your device.

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**Type in: ipconfig /flushdns /?**

Read the help pages for the ipconfig command. What is the purpose/output of the ipconfig /flushdns command?

Purges the DNS Revolver cache.

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**Type in: color /?**

Read the help pages for the color command. What is the purpose/output of the color command

Shows the colors and their corresponding letters/numbers in order to change the color of the command prompt text.

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***Part 2*: Writing a Simple Batch Program**

Batch files are used to automate everyday tasks such as helping a computer technician, network administrator, or a computer programmer diagnose a networking issue or shorten the time it takes to everyday tasks such as compile Java programs.

**Procedure:**

The first part is to create a batch file that allows you to test your network adaptor and see if you are connected to a network.

There are a few simple commands I want to familiarize you with for this program. Commands are **NOT case sensitive**.

**TITLE** - The Window name for the BAT file.

**ECHO** - the “print” statement for BAT files. Anything following the word ECHO will be displayed in the command prompt as text, on its line.

**ECHO OFF** – BATCH FILE writers typically put this at the beginning of their files. It means that the program won’t show the command that you told it to run while it’s running – it’ll just run the command. I’d recommend that after you run this test program, you try removing this line from your code to see what happens.

**PAUSE** - This outputs the “***press any key to continue…*”** message that you’ve seen all too many times. It’s helpful because it pauses the batch file execution. If you don’t put this in your program, everything will **speed** by and end before you can see it. Programmers typically put this in batch files to give the user a chance to review the material on the screen before continuing.

**CLS** - Clears the CMD window

**IPCONFIG** – Outputs network information into your CMD box

**WHOAMI** - This utility can be used to get a user name and group information along with the respective security identifiers (SID), claims, privileges, login identifier (logon ID) for the current user on the local system.

**SET** – Sets a variable. If you want to see what the content of a variable, use the echo command.

With the **/p** switch you can instruct set to create a new variable based on the **users' input**.

**IF** – The IF command ties together batch processing. The IF command responds to the variable created by the set command.

**GOTO** – The GOTO command tells the command prompt to jump to a new location in the batch file.

**Chkdsk**: Checks a disk and displays a status report.

**MD**- Creates a directory

**Color**- Sets the default console foreground and background colors.

Import tip:

Make sure you run your batch file as an **administrator.**

For some commands, use cmd help on your computer. For instance, for **color** commands code numbers you type **help** in cmd, you will see codes for different colors.

Opening any program you need to go to C:\windows\system32 to find the program, for instance, the paintbrush is **mspaint.exe**. To execute this program make sure to specify the path to this program. **C:\windows\system32\mspaint**

Example of an IP address:

In the command prompt (CMD) type **ipconfig** and press **enter**. You will see your IP address for your computer internet connection



Create a batch file

Open a new **text** document on your desktop (**notepad)**. Double click the file – it should be blank inside. Now, go to ***file>save as*,** and in the “*Save As*” window, input a name for your BAT file and then add a ***.bat***  on the end. For example, when I created the batch file below I named it *lab Lab8*.**bat.**

**Right-click** your **BAT** file and click “***edit*”** to bring up **Notepad** and create the batch file.

The batch file should have **a menu** that allows the user with seven options. The batch file should run until the user chooses to quit the batch file

Option 1: allows the user to test their **network adaptor** to see if it is running.

Option 2: allows the user to run the **ipconfig** command. (Shows your IP address)

Option 3: allows the user to **release** their current IP address for their network adaptor.

Option 4: allows the user to **renew** their network adaptor’s **IP address**.

Option 5: allows the user to remove all entries from their **DNS cache** i.e. to flush the cache. (DNS)

Option 6: allows the user to **stop** the print spooler. The command to stop the print spooler is the net stop spooler.

Option 7: allows the user to **start** the print spooler. The command to start the spooler is the net start spooler.

Option 8: allows the user to run the **whoami** command and display their user id and SID. The command is **whoami /user.**

Option 9: Create a directory in C:\ drive with your name.

Option 10: Check the hard drive in your computer (scan)

Option 11: change letters to green color.

Option 12: change letters to yellow color.

Option13: change the background to red color

Option14: open paintbrush program

Option15: open CMD command prompt

Option 16 : allows the user to press **q** to stop the batch file from running.

Once you have completed the lab; answer the questions ( in red) and demonstrate your batch file.

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| --- | --- |
| 5 marks | Answer the questions |
| 5 marks | Run the batch file |