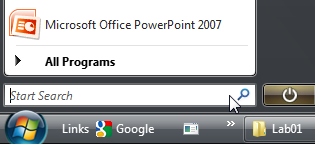
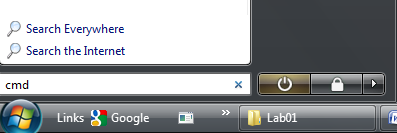
**Compiling and Executing a Java program from the command prompt**

# Some Essential Windows Command Prompt (CMD) Commands

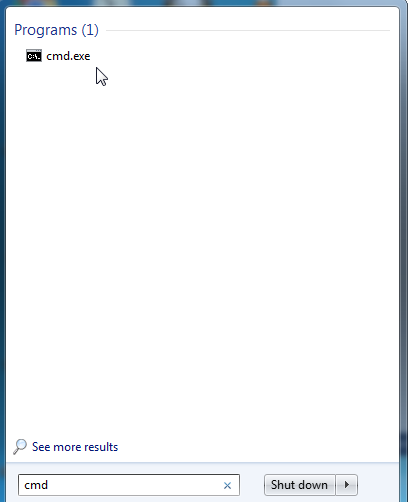
To be able to use JDK effectively, you need to know some basic CMD commands. To do this, first you need to switch to the **Command Prompt**.

In Windows 7 or 10 this is done by typing **cmd** on the search menu and then pressing the ENTER key:

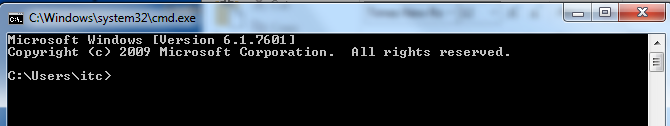




And then double-clicking **cmd.exe** :



This will open the command prompt window:



Alternatively for Windows7 and 10 you can use: **Start 🡪 AllPrograms 🡪 Accessories 🡪 CommandPrompt** to access the command prompt.

# 4.1 Changing Drives:

To change to a particular drive, type the drive letter followed by colon and press enter. (e.g. **D:** )

**4.2 Changing folders**.

The **cd** command is used to change folder. You need to give it the folder you wish to change to, as a parameter.

Examples are:

**cd \**  This changes to the root folder (top most folder) of the current drive.

**cd workarea** This changes to the workarea folder which is under the root folder

**cd Lab1** This changes to the lab1 folder which is uder the workarea folder.

**cd ..** This changes to a folder one step back.

Note that you cannot randomly change from one folder to another. You need to either follow them in sequence or give the full path as your parameter. For example, if you are at the root folder of drive D, then the command

**cd Lab1**

will not work.

You have to either follow the sequence:

**cd workarea**

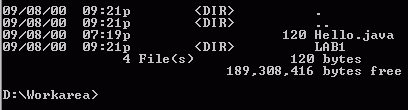
**cd Lab1**

Or you have to type:

**cd workarea\Lab1**

# 4.3 Displaying list of files

The **dir** command is used to display the list of files in a given folder. Change to the **workarea** folder and type dir followed by enter. You should see a list like the following.



The list indicates the files and folders in the current folder along with the date and time they were created or last modified followed by their size in bytes (for files) or <DIR> to indicate folders.

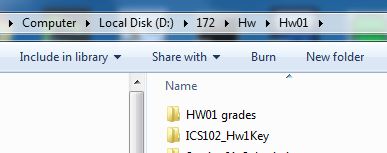
# 4.4 Executing a Program

To execute a program in the Command Prompt, we simply type the program name and press the Enter Key. For example, execute **Notepad** program, type Notepad and press the Enter key.

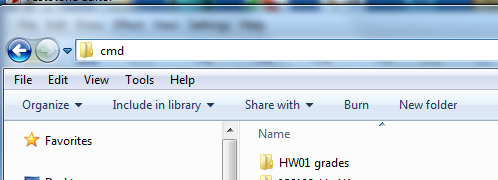
**Note:** For the above to work, the program must be either in the current folder, or in a list of folders specified for the operating system to search for applications, using the **PATH** environment variable [This is explained in the Optional material for this lab].

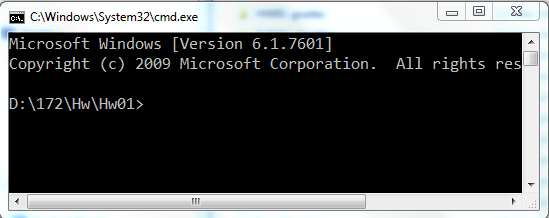
**4.5 Starting the command prompt from a given folder**

Browse to the required folder, example: D:\172\Hw\Hw01



Type **cmd** in the locations window and then press the **Enter** key:





**4.6 Returning to a previous Command:**

Use the up arrow key ↑

**4.7 Clearing the Command Prompt Window**

The command **cls** clears the Command Prompt window.

# 4.8 Exiting the Command Prompt

To exit the Command Prompt, close the Command Prompt window or use the **EXIT** command.

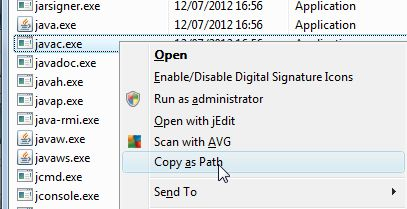
**Exercise 01:**

**In the following exercise, you may find it useful to create file paths by draging files to the command prompt:**

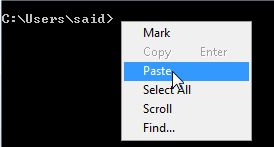
**Dragging and Dropping Items in the Command Prompt Window**

In Windows 7 and 10 it is possible to have the path to a file or folder written in the Command Prompt by just dragging the file or the folder to the Command Prompt. Also the following steps may be used to write the path of any item in the Command Prompt:

* While pressing the **Shift key**, right-click on the required file or folder and then select **Copy as Path**. Example:



* Right-click at the Command Prompt and then select **Paste** :



1. Use Notepad or any text-editor to create the following Java program then save it in **D:\Workarea** as **HelloStudents.java**

**public class HelloStudents{**

**public static void main(String[ ] args){**

**System.out.println(**"**Hello Students, Welcome !**"**);**

**}**

**}**

**Note:** Java is case-sensitive

1. Compile the program from the Command prompt. Use a command similar to:



Here, the Command prompt is **C:\Users\said>** followed by the full path to **javac.exe** and then the full path to the java source file.

If there are no syntax errors, the command prompt is displayed:



**Note:** If there are syntax errors in a program, the compiler will display those errors during compilation:

**Exercise 02:** Introduce a syntax error in the program HelloStudents.java, by removing the **S** of **System**:

**public class HelloStudents{**

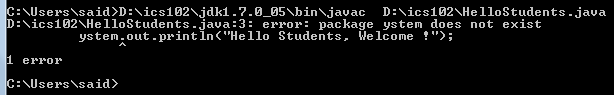
**public static void main(String[ ] args){**

**ystem.out.println(**"**Hello Students, Welcome !**"**);**

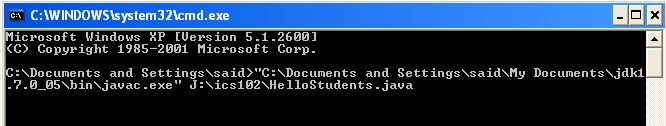
**}**

**}**

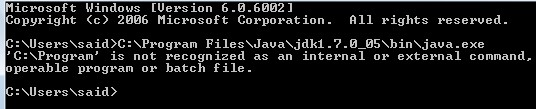
Save the program, and then compile it. You should get results similar to:



**Note:** If a path contains folder names that have space (e.g. My Documents) then the path must be enclosed in double quotes. Example:



If this is not done, the error: **“... not recognized as an internal or external command, operable program or batch file”** is displayed. Example:



1. Run the program from the command prompt. Use command similar to:



**Note:** In the above command **HelloStudents** must be written without the extension **.class**. There must be space between the class path **D:\ics102** and the class name **HelloStudents**

The output of the program will be displayed, then the command prompt:

****

If the any of the path used has a name with space, the path must be enclosed in double quotes. Example:

****

**Note:** The process of compiling and executing a program from the command prompt may be simplified (by not requiring full paths) by configuring Windows PATH and CLASSPATH environment variables [See the optional material for this lab]