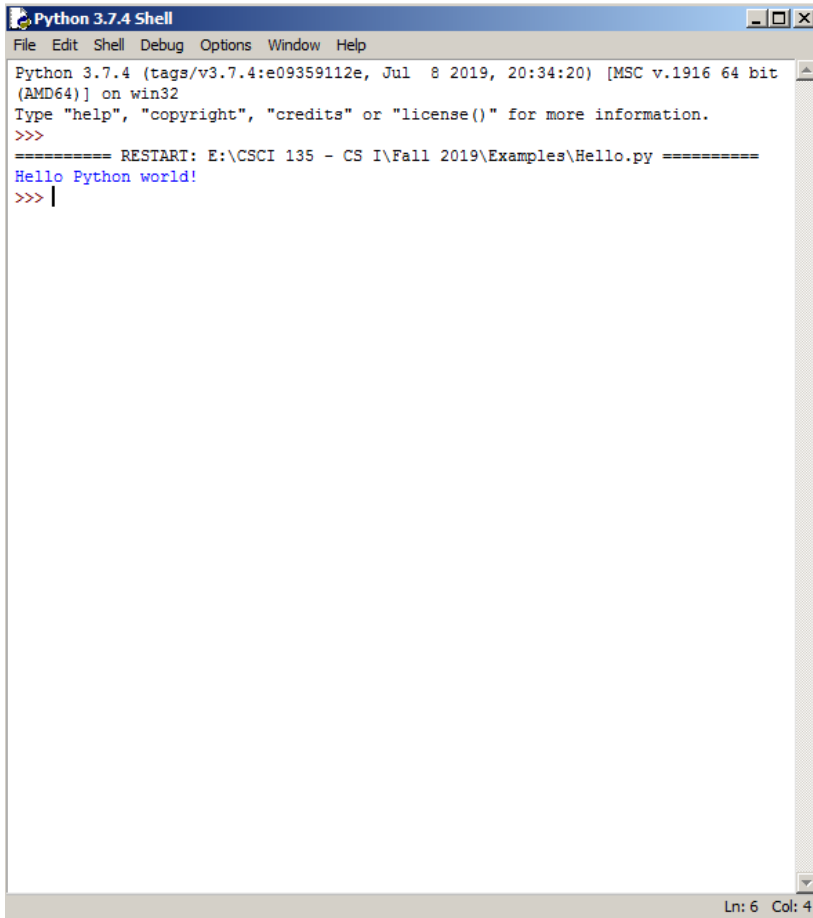


GETTING STARTED: COMMAND WINDOW

Outline

- Getting Started
 - Idle Shell and Editor
 - Command Window

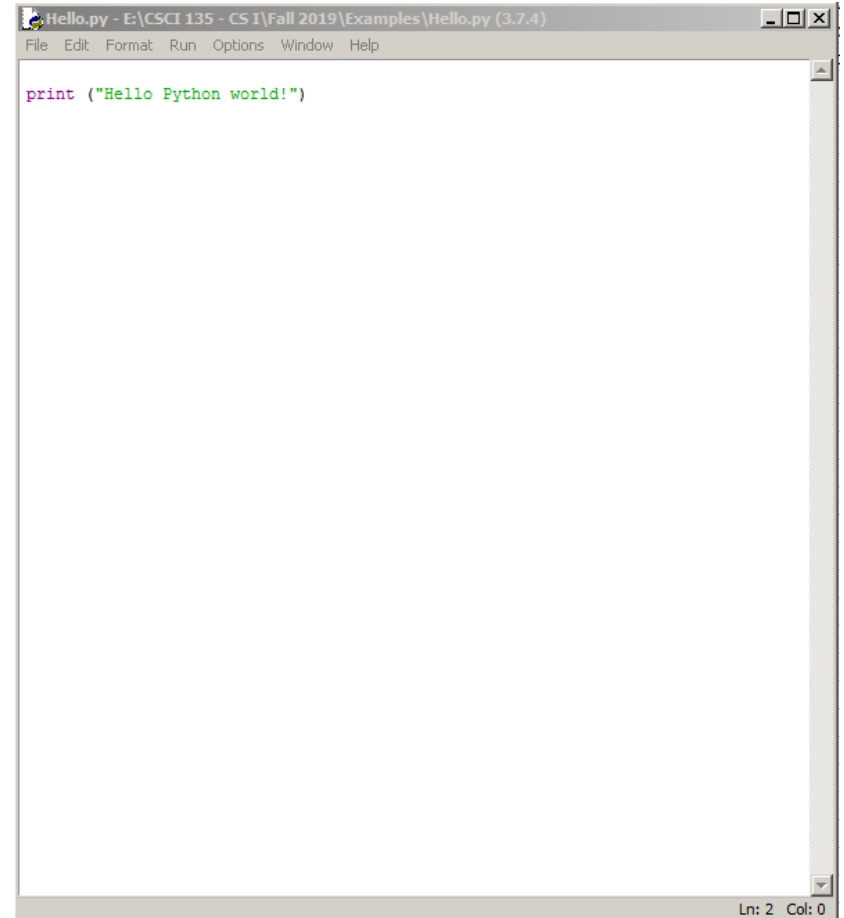
Getting Started: Idle Shell and Editor



The screenshot shows the Python 3.7.4 Shell window. The title bar reads "Python 3.7.4 Shell". The menu bar includes "File", "Edit", "Shell", "Debug", "Options", "Window", and "Help". The main text area contains the following text:

```
Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 20:34:20) [MSC v.1916 64 bit  
(AMD64)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
===== RESTART: E:\CSCI 135 - CS I\Fall 2019\Examples\Hello.py =====  
Hello Python world!  
>>> |
```

The status bar at the bottom right indicates "Ln: 6 Col: 4".



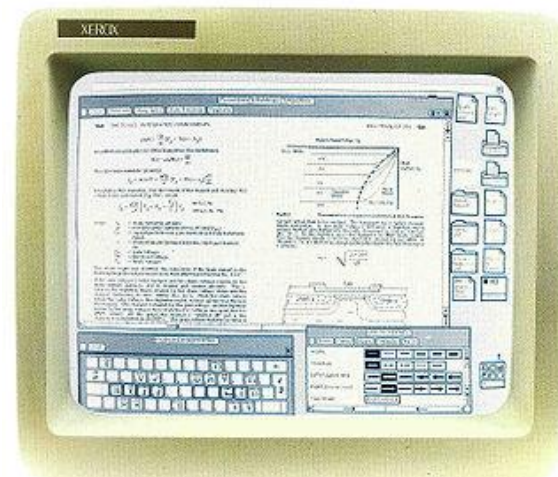
The screenshot shows the Python 3.7.4 Editor window. The title bar reads "Hello.py - E:\CSCI 135 - CS I\Fall 2019\Examples\Hello.py (3.7.4)". The menu bar includes "File", "Edit", "Format", "Run", "Options", "Window", and "Help". The main text area contains the following code:

```
print ("Hello Python world!")
```

The status bar at the bottom right indicates "Ln: 2 Col: 0".

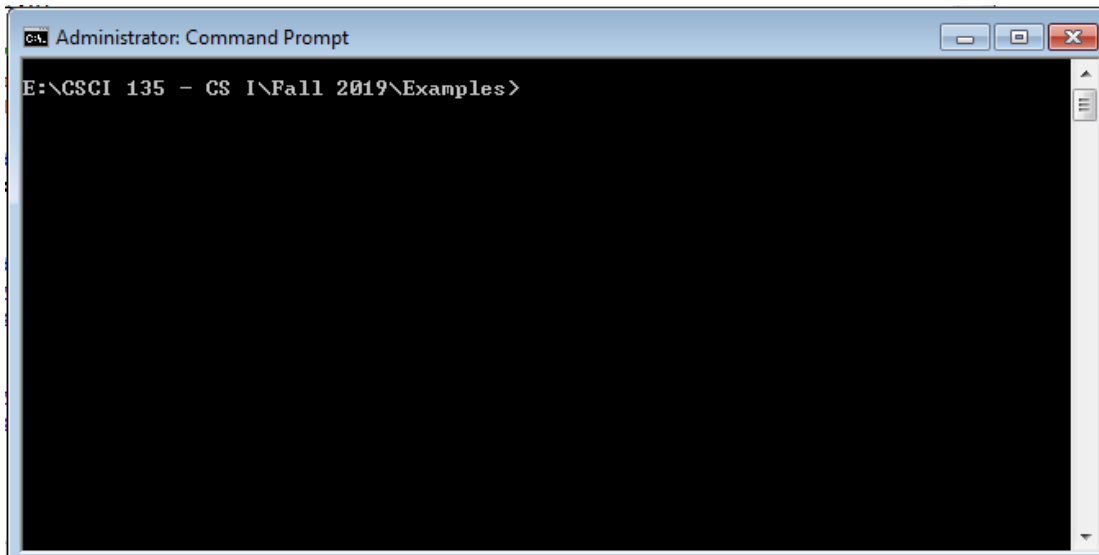
Getting Started: Command Window

- **GUI** (Graphical User Interfaces)
 - Today: **predominant interaction method**
 - Windows, buttons, mouse
 - Advantages
 - **Easier for novices**
 - **No commands to remember**
 - **Rich input and output capabilities**

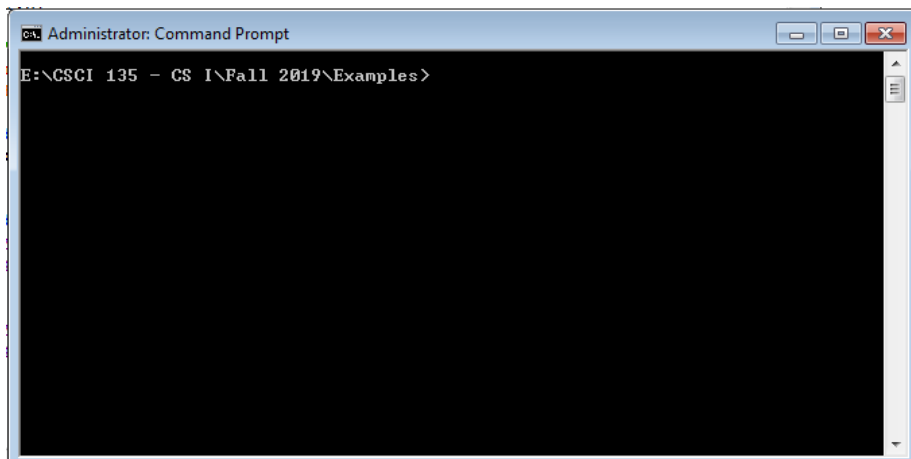


Getting Started: Command Window

- Command Line Interface (CLI)
 - Originally the only option
 - Input by **typing commands**
 - Advantages:
 - Can be **faster for experts** than a GUI
 - Easier to **automate** tasks
 - Easier to **hook programs together**



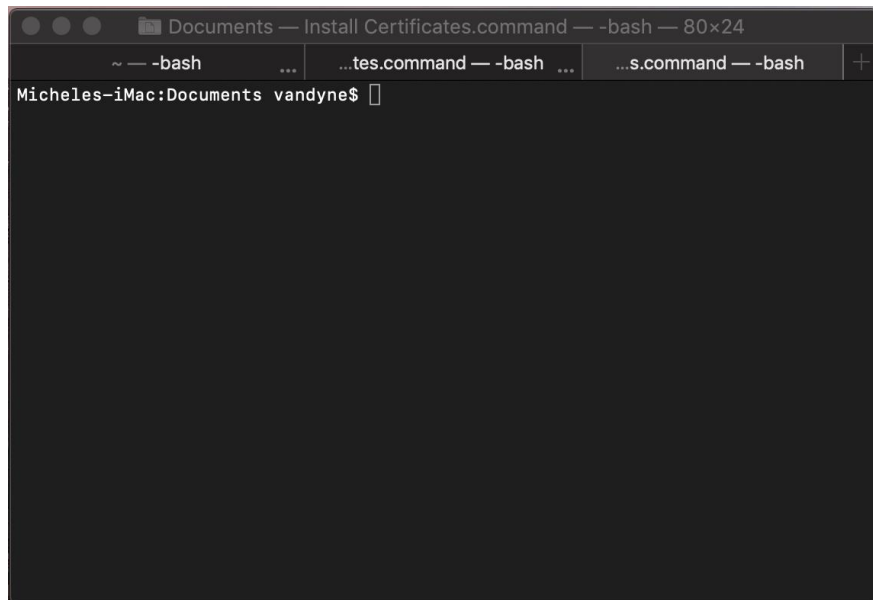
Getting Started: Command Window



Windows 10

Cortana → type "cmd"

*All Programs → Accessories →
Command Prompt*

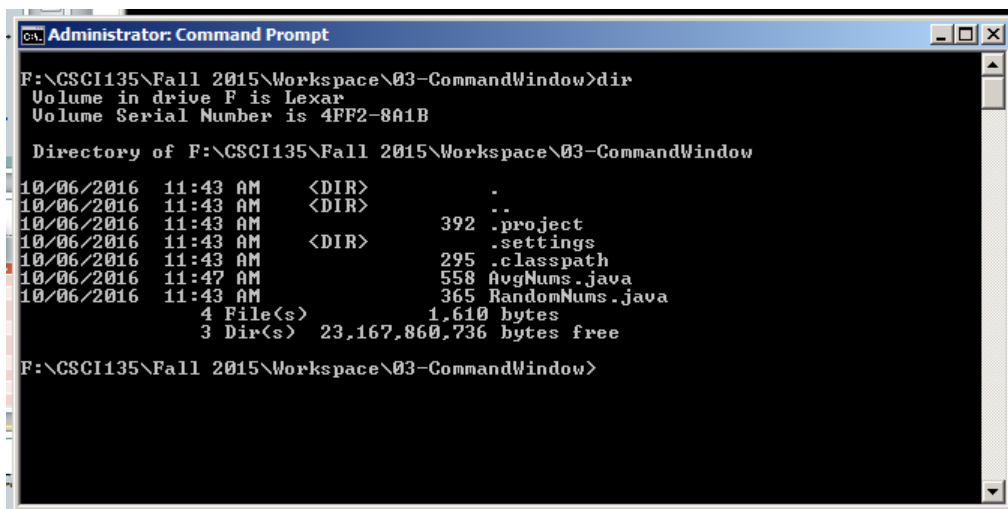


Mac

*Click on Launchpad, Select
"Other"*

Select Terminal

Getting Started: Command Window



```
Administrator: Command Prompt
F:\CSCI135\Fall 2015\Workspace\03-CommandWindow>dir
Volume in drive F is Lexar
Volume Serial Number is 4FF2-8A1B

Directory of F:\CSCI135\Fall 2015\Workspace\03-CommandWindow

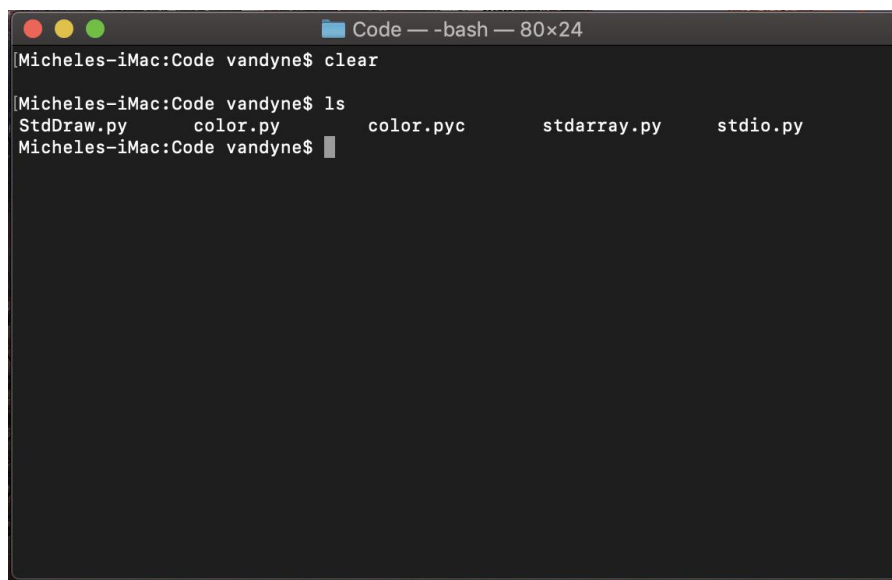
10/06/2016  11:43 AM    <DIR>          .
10/06/2016  11:43 AM    <DIR>          ..
10/06/2016  11:43 AM                392  .project
10/06/2016  11:43 AM    <DIR>          .settings
10/06/2016  11:43 AM                295  .classpath
10/06/2016  11:47 AM                558  AvgNums.java
10/06/2016  11:43 AM                365  RandomNums.java
         4 File(s)                1,610 bytes
         3 Dir(s)  23,167,860,736 bytes free

F:\CSCI135\Fall 2015\Workspace\03-CommandWindow>
```

Windows

Looking at the contents of a folder:

dir



```
Code — -bash — 80x24
Micheles-iMac:Code vandyne$ clear

Micheles-iMac:Code vandyne$ ls
StdDraw.py      color.py      color.pyc     stdarray.py   stdio.py
Micheles-iMac:Code vandyne$ █
```

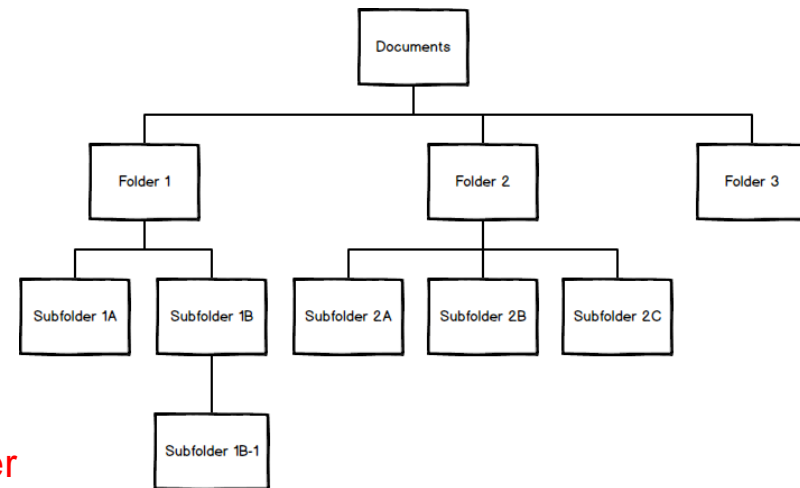
Mac

Looking at the contents of a folder:

ls

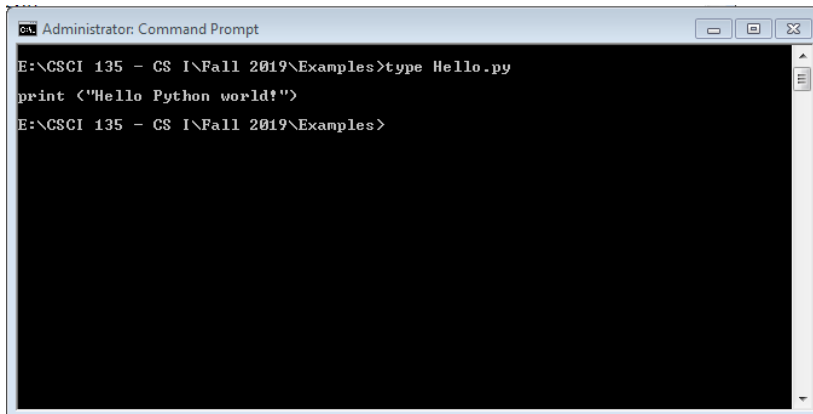
Directory/Folder Structure

- “Folders”/Directories organized in an upside down tree structure
 - Root is at the top, branches below
 - Files are stored in folders/directories
 - On Windows, different devices have different letters
 - Primary hard drive is C:
 - At Tech, user directories are on D:
 - Flash drives are usually E: onward
- Navigating the tree
 - To change to a directory:
 - Windows: `cd C:\Documents\Folder 1\Subfolder`
 - Mac: `cd "/Documents/Folder 1/Subfolder"`
 - Up one directory level: `cd ..`
 - The current directory: `.`
 - Where am I?
 - Windows: usually shown in the “prompt”
 - Mac: `pwd`



Getting Started: Command Window

- To display the contents of a file to the screen on Windows:
> **type Hello.py**

A screenshot of a Windows Command Prompt window titled "Administrator: Command Prompt". The window shows the following text: "E:\CSCI 135 - CS I\Fall 2019\Examples>type Hello.py", "print <'Hello Python world!'", and "E:\CSCI 135 - CS I\Fall 2019\Examples>". The text is displayed in a white font on a black background. The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

```
Administrator: Command Prompt
E:\CSCI 135 - CS I\Fall 2019\Examples>type Hello.py
print <'Hello Python world!>
E:\CSCI 135 - CS I\Fall 2019\Examples>
```

- To display the contents of a file to the screen on Mac:
> **cat Hello.py**

Running a Python Program

- Windows or Mac:
 - > `python HelloWorld.py`
- If it all runs correctly, you'll get the program results and a prompt
- If things go wrong, you will get an error and a cryptic description of what went wrong
 - Will give you some clues
 - Over time, these will become more understandable

Summary of Helpful Commands

Action	Windows	Mac OS / Unix
Move into a folder	<code>cd myfolder</code>	<code>cd myfolder</code>
Move into parent folder	<code>cd ..</code>	<code>cd ..</code>
Move into a folder, absolute folder	<code>cd \Users\vandyne</code>	<code>cd /Users/vandyne</code>
List files in current folder	<code>dir</code>	<code>ls</code>
Compile and run a program in current folder	<code>python Prog.py</code>	<code>python Prog.py</code>
See what is in a text file	<code>type Prog.py</code>	<code>cat Prog.py</code>
Auto-complete filenames	<code><tab key></code>	<code><tab key></code>
Previous command	<code><up arrow></code>	<code><up arrow></code>

Summary

- Getting Started
 - Idle Shell and Editor
 - Command Window

