

## Programming

- compiled vs interpreted
- compiled: fast, efficient, talking at the computer level
- ex: Java, C/C++, Android, Swift, Assembly, VB
- interpreted: slower, easier to modify, human-readable
- ex: Python, Ruby, JavaScript, BASH, Powershell, BASIC

## Programming Environments

- Notepad, but not Microsoft Word or a word processor
- Notepad++, but can't run the program
- Integrated Development Environment (IDE)
  - Visual Studio, PyCharm, CLion, PhpStorm, Visual Studio Code, Atom

## Python

- PyCharm - main IDE
- Jupyter Notebook - used to quickly run bits of code
- IDLE - comes with Python, officially.
- Vi - command prompt editor
- Python - the language interpreter (python.org)

## Interactive vs Script Mode

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|---|---|
| <ul style="list-style-type: none"><li>- type "python" at the command prompt</li><li>- shows prompt "&gt;&gt;&gt;"</li><li>- enter a line of code</li><li>- press "ENTER"</li><li>- code is executed</li></ul> | <ul style="list-style-type: none"><li>- use an IDE or text editor</li><li>- enter multiple lines of Python</li><li>- save file</li><li>- type "python &lt;filename&gt;" at the command prompt</li></ul> |
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## Windows Command Prompt

dir - show files in the folder  
cd <folder> - change directory to <folder>  
cls - clear screen  
mkdir <folder> - make directory  
move <filename> <folder> - moves file into folder  
copy <filename> <filename2> - copies filename to filename2  
del <filename> - deletes a file

Pip

- <http://www.pythontesting.org>