Computer Languages such as Python are human readable.

Python uses an **interpreter** to translate code line by line to **binary (machine readable)**.

**cpython** – program written in C to read python files and run them on a machine

***Python (.py) file -> Interpreter -> bytecode -> cpython VM -> binary***

**Terminal (Windows PowerShell)**

**Code Editors (Sublime Text; Visual Studio Code)**

**IDE (PyCharm)**

**Notebook (Jupyter)**

**PowerShell Commands**

**ls – List [Lists all folders and files in the current directory]**

**pwd – Present Working Directory**

**cd – Change Directory**

**cd .. – Change Directory to Parent Directory [Moving 1 Directory Back or Up]**

**cd / - Change Directory to Root Directory**

**cd ~ - Change Directory to User Directory**

**clear - Clear Terminal Output [Refresh]**

**(Write file/directory/application/item names after commands)**

**mkdir - Make a new Directory [Folder]**

**New-Item - Create a new File**

**Start-Process - Starts the process of the file**

**Rename-Item - Rename Directory/File/Application/Item**

**Remove-Item - Remove Directory/File/Application/Item**

**Get-Command: Retrieves a list of all the PowerShell commands whose modules have been loaded**

**Get-Help: Displays the syntax of any PowerShell cmdlet**

**Get-Process: Displays a list of all processes running on the system**

**Stop-Process: Stops one or more running processes**

**Get-Service: Retrieves the status of services on a local or remote computer**

**Set-Location: Changes the current location to the specified location**

**Get-History: Displays a list of the commands entered during the current session**

**Python Commands**

**The Python command in the terminal allows you to interact with the Python interpreter, a program that executes Python code. When you type "python" in the terminal, it launches the Python interpreter, providing you with a command-line interface to write and execute Python code.**

**Here's a breakdown of what the Python command does:**

**1. \*\*Interactive Mode\*\*: When you enter the Python command, you enter the interactive mode of the Python interpreter. In this mode, you can type Python statements and expressions directly into the terminal, and the interpreter will execute them immediately, displaying the results.**

**2. \*\*Executing Python Scripts\*\*: You can also use the Python command to execute Python scripts. A Python script is a text file containing Python code. To execute a Python script, you can type "python" followed by the path to the script file in the terminal. For example, if your script is named "my\_script.py" and is located in the current directory, you would type:**

**python my\_script.py**

**3. \*\*Importing Modules\*\*: The Python command also allows you to import Python modules. Modules are files containing Python code that you can import into your scripts to use their functionality. To import a module, you use the "import" statement. For example, to import the "math" module, you would type:**

**import math**

**4. \*\*Command-Line Arguments\*\*: When executing a Python script, you can pass command-line arguments to the script. Command-line arguments are values that you provide to the script when you run it. You can access these arguments within your script using the "sys.argv" list.**

**5. \*\*Exiting the Python Interpreter\*\*: To exit the Python interpreter, you can type "exit()" or "quit()" in the interactive mode.**

**Remember, the Python command provides a versatile interface for writing and executing Python code, allowing you to explore the language's capabilities and build various applications.**