WHAT IS A PYTHON CODE
&
HOW DO I RUN IT?

CIS 830 (Spring 2021)

WHAT IS A PYTHON CODE?

- A simple text file…

  - Saved somewhere on your computer

  - *.py* file extension

  - Containing words, numbers, and symbols that are interpretable by Python

- These form commands that are listed line-by-line

hello_world.py

WHAT IS A PYTHON CODE?

- It has specific, mandatory rules about style and formatting

  - Indents and spaces are important (sometimes)

  - Certain words have built-in meanings


```python
# My first Python code
print('Hello World!')
```

3 WAYS TO RUN A PYTHON CODE

1. Execute the text file in a *Command Prompt / Terminal*

2. Manually enter commands in an *Interactive Prompt*

3. Do both 1 and 2 using an *Integrated Development Environment (IDE)*

1. TEXT FILE + COMMAND PROMPT / TERMINAL

- Write the code in your favorite text editor

- Open a command prompt (e.g., *Windows Powershell* in PC, *Terminal* in Mac or Linux)

- "cd" (change directory) to the location where the text file is saved

- Enter "python my_code.py"
  - Requires that Python is added to your PATH.

2. INTERACTIVE PROMPT

- From you command prompt, open a Python interactive prompt by typing just "python"

  - Again, requires Python to be in your PATH

- ">>>" is the "prompt". It tells you that Python is ready to executive a command

- Manually execute individual Python commands

  - Good for testing with syntax/functions, because it will throw an error immediately

3. INTEGRATED DEVELOPMENT ENVIRONMENT (IDE)

- Application with a built-in text editor + interactive prompt (e.g., Spyder, PyCharm, IDLE, Visual Studio (VS) Code, etc.)

- Often comes with built-in documentation

- Text is automatically given color (*syntax highlighting*) based on Python syntax
  - Readability is key!!

- Good for writing larger codes and/or testing small commands

Try running these commands in the Spyder Interactive Prompt!

```
# A few example commands
print('Hello World')
print(2 * 2 + 10)
2*2+10
x = 'cat    '
y=8
y
print(x*y)
import time
```