Configuring Python & Tools

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Download/Installing Python

- We will be using Python 3 in this course
  - There are some differences between Python 3 and Python 2
  - If you already have Python 2 installed, please upgrade to Python 3
- To download and install Python, go here: https://www.python.org/downloads/ (Download the latest version)
- This download/install comes bundled with IDLE (Python's Integrated Development and Learning Environment)
  - Includes an interactive Python *interpreter* and *script editor*

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Using IDLE – Running a Python Script

- To create and run a Python script in IDLE, you must first create and save a script file
  - Go to "File" --> "New File"
  - Go to "File" --> "Save"
- To open an existing script
  - Go to "File" --> "Open…"
- To execute a script
  - Go to "Run" --> "Run Module"

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Using IDLE – Keyboard Shortcuts

- To execute a command in the Python *shell*
  Press Enter
- To execute previous commands
  Use CTRL + p or CTRL + n to toggle commands in your history
  - To change this default setting, go to IDLE → Preferences → Keys
- To execute a script in the Python *script editor*
  Press F5
  On a Mac, press FN + F5
- To save a script in the Python *script editor*
  Press CTRL + S
  On a Mac, press CMD + S

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Jupyter Notebook

- Jupyter Notebook App: Runs in a browser on your computer
  - Includes interactive Python *interpreter* and *script editor*
  - To install, download Anaconda, a data science platform. This will install Python and Jupyter Notebook all at once: https://www.anaconda.com/download (Download the latest version)
  - To run, open Terminal on Mac or Command Prompt on Windows and run: jupyter notebook
  - Or launch from the Anaconda Navigator

For reference: http://jupyter.org/install.html

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Using Jupyter Notebook – Keyboard Shortcuts

- To execute code in a cell in a notebook
  Select the cell and press CTRL + Enter
- To execute code in a cell in a notebook, and select the next cell
  Select the cell and press Shift + Enter
- To insert a cell above
  Select the cell and press a
- To insert a cell below
  Select the cell and press b
- To delete a cell
  Select the cell and press dd
- To get help with Jupyter Notebook (Keyboard shortcuts)
  Anywhere outside of a cell, press h
- To get help with a Python function
  Put cursor inside parenthesis of function, and press Shift + Tab

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Using Jupyter Notebook – Exporting a Python Script

- To create Python scripts in Jupyter Notebook
  - Export a Python script file and save it as *<your_script>.py*
    - Go to "File" --> "Download As" → "Python (.py)"

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repl.it

- repl.it: Online Python interpreter that runs in the browser
  - Includes an interactive Python interpreter and script editor:
    https://repl.it/languages/python3

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Using repl.it

- Navigate to the Python IDE here: https://repl.it/languages/python3
- This is the Python *shell*, which allows you to write and run interactive Python commands
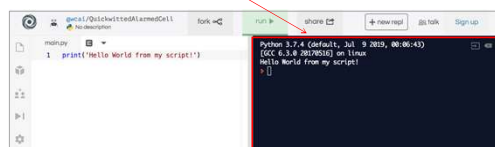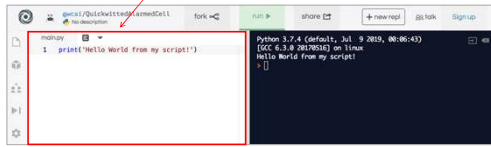
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Using repl.it

- Navigate to the Python IDE here: https://repl.it/languages/python3
- This is the Python *script editor*, which allows you to write, run, and save Python scripts

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Using repl.it – Keyboard Shortcuts

- To execute a command in the Python *shell*
  Press Enter
- To execute previous commands
  Use up arrow or down arrow to toggle commands in your history
- To execute a script in the Python *script editor*
  Press CTRL + Enter
  On a Mac, press CMD + Enter
- To save a script in the Python *script editor*
  Press CTRL + S
  On a Mac, press CMD + S

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Python Help

- Python Language Resources
  - Python Language Reference: https://docs.python.org/3/reference/index.html

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Python Help – Other Tools

- Other Python Tools (IDEs)
  - PyCharm: Python IDE
    - https://www.jetbrains.com/pycharm/download/
  - Eclipse with PyDev: Python IDE for Eclipse
  - Text Editors: Emacs, VI, Sublime, etc.

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