

# Introduction to Python II

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# First Access Your Account

- Log into your accounts
  - Username or login = hpc\_user**X**
  - Where **x = sign in serial number 1 – 47**
  - Password = **cacds2014**
- Use your web browser
  - Firefox, Chromium or Google chrome
- Slides could be downloaded from URL below  
[http://129.7.249.171/workshops/intro2python\\_Part2.pdf](http://129.7.249.171/workshops/intro2python_Part2.pdf)

# Getting Started

- Use the terminal to download `intro2python_Part2.zip` file to your home directory
  - Run the following commands

```
cd
```

```
wget http://129.7.249.171/workshops/intro2python_Part2.zip
```

```
unzip intro2python_Part2.zip
```

```
cd intro2python_Part2
```

```
module load python
```

- Now, you can begin working with tutorial files on your terminal

# Overview

- Part I
  - What is Python?
  - Data-type
  - Variable, strings, numbers, lists, dictionaries
  - Syntax and language structure
  - Flow control (conditionals, for & while loops)
  - Functions
  - Importing modules
  - Reading and writing files
- Part II
  - Strings, regular expressions, and **biopython**
  - Debugging
  - Profiling
  - Numpy
  - Scipy
  - Plotting with matplotlib
  - Sympy
  - Parallel programming

# IPython

- A highly interactive interpreter for developing python code
- Please run on your desktop terminal  
Command should open up a browser window
- `cd ~/intro2python_Part2`  
`ipython notebook`

# Application Support

- Computational scientists are available for
  - consultation and training
  - We can help with porting your homebrew code and domain applications to run on the cluster
  - We can also help with developing proposals that involve use of HPC (i.e. make use of Cluster resources).
  - Help requests
    - Visit → <http://support.cacds.uh.edu/training-form.php>
    - To Open A Support Ticket
- Administrative questions can be submitted to the cluster admin staff and anyone who can help will respond.
  - Visit → <http://support.cacds.uh.edu>
    - To Open A Support Ticket