Please make sure that

- **You are able to run Jupyter Notebook on your laptop**
- **You have downloaded the Jupyter notebook file from the Week 3 module on ICON and saved it in your working directory**

MSCI:6040
Data Programming in Python

Python Basics Part 1

Kang-Pyo Lee

Course Calendar

Week	Topic	Due
1 (Aug 26)	Introduction to Python and Jupyter Notebook Group Project Announcement	
2 (Sep 2)	No class (Labor Day)	
3 (Sep 9)	Python Basics Part 1: Data Types, Built-in Functions, and Operators	
4 (Sep 16)	Python Basics Part 2: Flow Control, Functions, Modules and Packages, and Exceptions	HW 1
5 (Sep 23)	Handling Numbers with NumPy Introduction to JupyterHub and UI Interactive Data Analytics Service (IDAS)	HW 2
6 (Sep 30)	Test 1	HW 3 (Sep 29)
7 (Oct 7)	Data Manipulation and Analysis with Pandas	Project Proposal
8 (Oct 14)	Files and External Data Sources Text Processing with NLTK and TextBlob	HW 4
9 (Oct 21)	Midterm Mingle Week Data Visualization with Matplotlib and Ipywidgets	HW 5
10 (Oct 28)	A Glimpse of Advanced Data Analytics: Machine Learning with Scikit-Learn and Deep Learning with TensorFlow	HW 6
11 (Nov 4)	Test 2	HW 7 (Nov 3)
12 (Nov 11)	Group Project Presentations	Project (Nov 10)

Outline

- **Python Basics: Data Types, Built-in Functions, and Operators**

- **Homework 1 Announcement**

Homework 1

How you should work on Homework 1:

1. Go to ICON > Assignments > Homework 1
2. Download the Jupyter notebook for Homework 1 (Data_Programming_in_Python_ Homework1.ipynb) and save it in your working directory
3. Run the Jupyter Notebook server
4. On Jupyter Notebook, move to the working directory where you saved the notebook
5. Open the notebook and work on the questions

**Homework 1 is due by 6:00 PM
on Mon, Sep 16 via ICON Assignments**

You will receive a 20% deduction for each day that it is late, including the first/same day

20 questions, 4 points in total

Expected to take a student who
understood the topics generally well
30-60 minutes to complete it

Please specify how much time
it took you to complete it
at the end of your notebook

Homework Instructions & Rules

- The format of homeworks is practically the same as that of in-class exercises
- Do not share code
- Pay attention to every single detail in the question and make sure to reflect them all in your answer (missing anything may result in no points for the question)
- There will be no partial points for a question unless specified

Homework Instructions & Rules

- **Use only one cell per question**
- **Each cell must be run with no errors (make sure to Restart & Run All before submitting to create a clean version)**
- **Do not contain any unnecessary code in your answer (only the final outcome of the cell will be regarded as your answer)**
- **If the questions request that you store information within certain variables, please use those specific variables names**
- **All problems must be solved in a programmable way.**
- **To turn in a homework, upload only your notebook to the corresponding ICON assignment**