Introduction to Computer Programming
Day 2: Setting up python environment

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Slides

All slides available at

- https://github.com/ forrestbao / PythonClass

Install on MacOS

Step 0

Open terminal

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Step 1

Install Homebrew `https://brew.sh/`

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Step 2

```
1  brew install python
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Verify your installation

```
1  python
2  >> 1 + 2
3  3
```

Install on Windows

Step 1

Download the binary python3 installer from python.org [a], and install. You will get:

- a python shell executer
- IDLE shell and editor

Add python to your PATH during the installation. Or you can rerun the installer to add it later.

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[a]https://www.python.org/downloads/windows/

Install on Windows

Try IDLE

Search and open IDLE in launcher.

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Try shell

Open terminal (command prompt) and type `python` (you need to add python to your PATH during installation):

```
1  python
2  >> 1 + 2
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Install on Linux

Use your distribution package manager to install python.
Ubuntu

```
1  apt install python
```

Arch Linux

```
1  pacman -S python
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Make sure you installed python3

```
1   python --version
```

Running python

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Interactive shell

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2   >>> 1 + 2
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run a .py file

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1  python file.py
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- Editor + plugins
- Other IDEs e.g. VS Code

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Web: Jupyter notebook

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Start a jupyter lab

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Common Errors

>>> pip: NameError: 'pip' is not defined

When you see >>>, you are inside python environment. You cannot run commands such as pip and jupyter here. Type exit() to escape from python environment:

```
1  user@shell $ python
2  >>> exit()
3  user@shell $ pip
```

python: command not found

If python or pip command does not work, try python3 and pip3

Use Jupyter Notebook!

To avoid tricky problems, use jupyter notebook intead of command line interface. It is much nicer.

Exercise

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E1: Hello World

Print "hello <your name>" out.

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E2: calculate factorial 50

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$fact_n = n * fact_{n-1}$

E3: print all even numbers under 20