

# Python

Prof. Gheith Abandah

# Outline

- First steps
- Introduction to Python
- Google Colab
- PyCharm IDE
- Python books

# First steps

- Install Python 3 from <https://www.python.org/downloads/>
- The latest version in June 2019 is 3.7.3
- For using TensorFlow, you need a 64-bit Python version, e.g.,  
<https://www.python.org/ftp/python/3.7.3/python-3.7.3-amd64.exe>
- For TensorFlow 1.6 and newer, your processor must support AVX (i3, i5, ...). Otherwise use TensorFlow 1.5.

# When installing Python, check the “Add to PATH” option



# First steps

- From your OS command prompt, check the options of the package installing system by:

```
C:\>pip3 help
```

- Install needed packages through:

```
C:\>pip3 install --upgrade jupyter  
matplotlib numpy pandas scipy scikit-learn
```

# Introduction to Python

- Refer to the documentation on <https://docs.python.org>

- Study the tutorials on <https://www.learnpython.org/>

- Introduction to Python slides:

<https://www.slideshare.net/nowells/introduction-to-python-5182313>

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# Google Colab

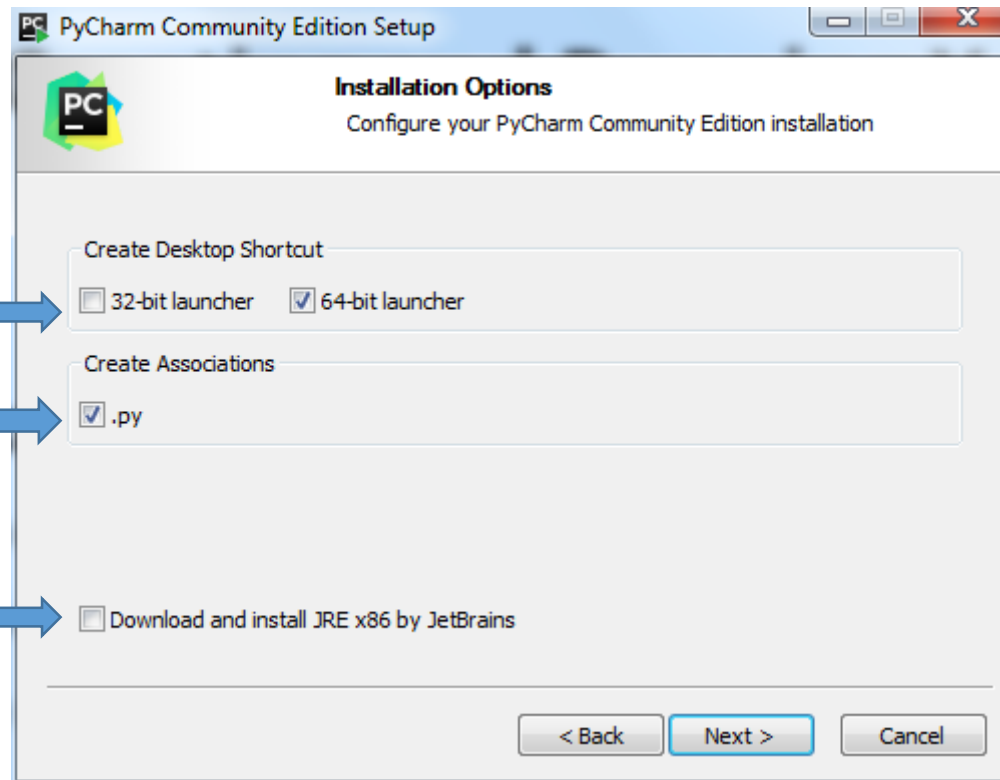
- **Colaboratory** is a free Jupyter notebook environment that requires no setup and runs entirely in the cloud. With **Colaboratory** you can write and execute code, save and share your analyses, and access powerful computing resources, all for free from your browser.
- <https://colab.research.google.com/>



# PyCharm

- Python comes with IDLE. This is a primitive IDE.
- **PyCharm** is a powerful Python IDE. Install it from <https://www.jetbrains.com/pycharm/>
- Install the free **Community** version.
- Students can also install the **Professional** version for free. You need university email address.
- Read the first two steps of “First Steps” at <https://www.jetbrains.com/help/pycharm/first-steps.html>

# PyCharm Installation



Select the relevant ones

Select this

No need to select

# Python Books

1. **A Whirlwind Tour of Python**, by Jake VanderPlas,  
<http://www.oreilly.com/programming/free/a-whirlwind-tour-of-python.csp> (**short**)
2. **Python for Everybody**, by Charles R. Severance,  
<https://py4e.com/book.php> (**medium**)
3. **Fundamentals of Python Programming**, by  
Richard L. Halterman,  
<http://python.cs.southern.edu/pythonbook/pythonbook.pdf> (**long**)