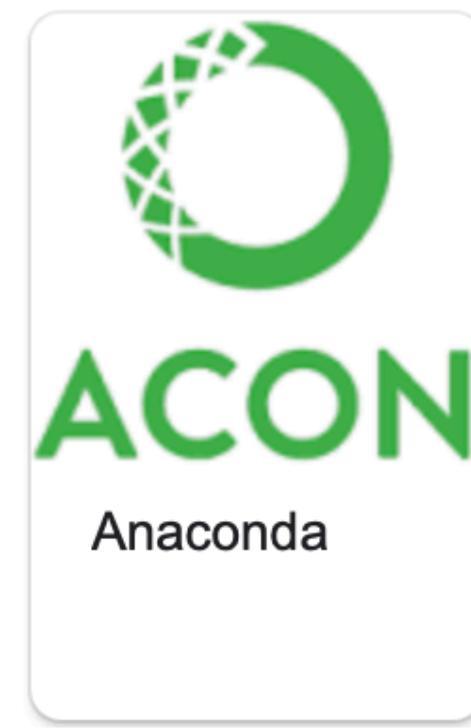


Recap

Environment



Python IDE



Python Package Manager

Example of Python Libraries



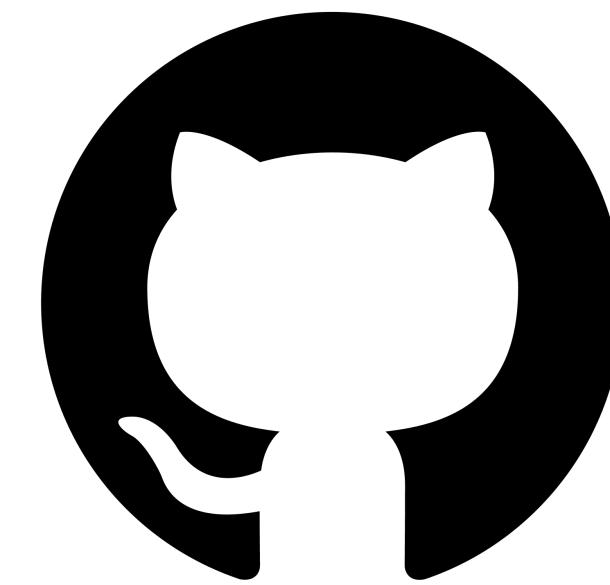
plotly



pandas

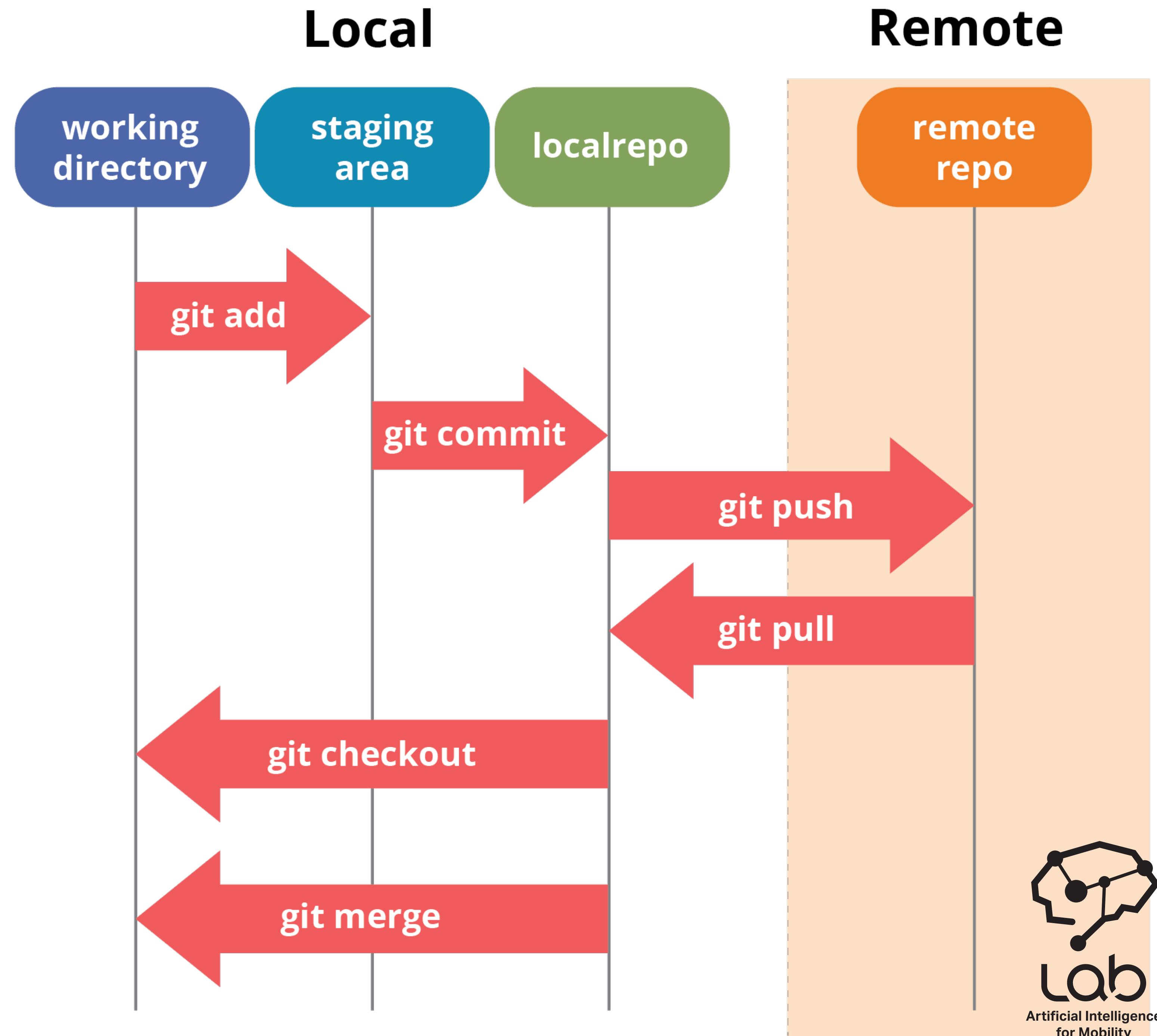


Code Management



GitHub

TU Delft



Python Rules

PEP 8

Indentation

Libraries

**No command
terminator (;)**

**Indexing starts
at 0**

Case-sensitive

`' ', " ", '''', '''''`

Colons (:)

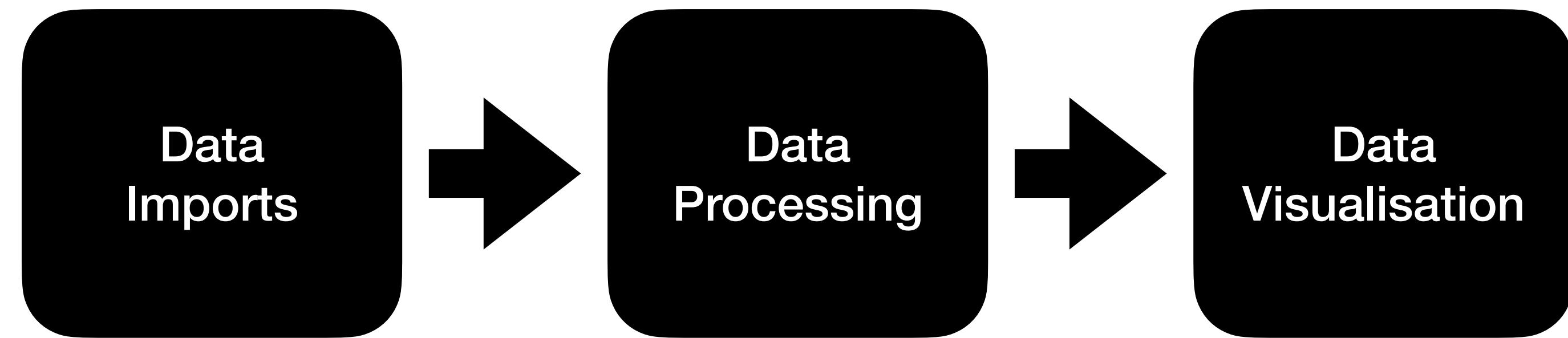
**Statement
separation using ;**

Blank lines

**Line continuation
using **

**Write comments
using #**

Content

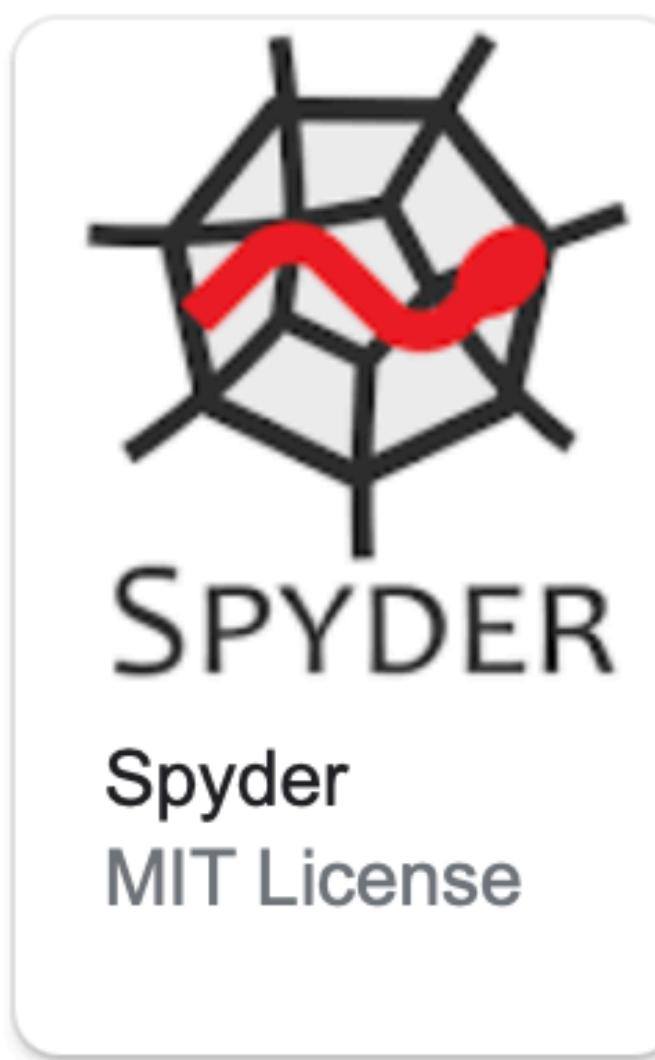
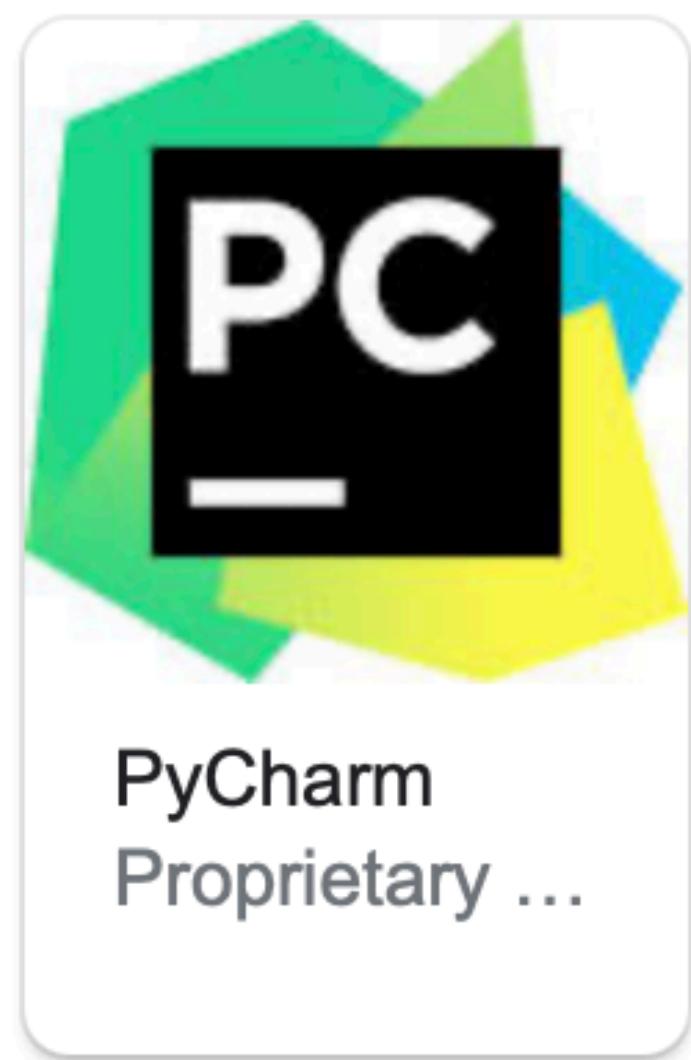


Moving Forward

TIL6010 - Week 8

Panchamy Krishnakumari, 17 October 2021

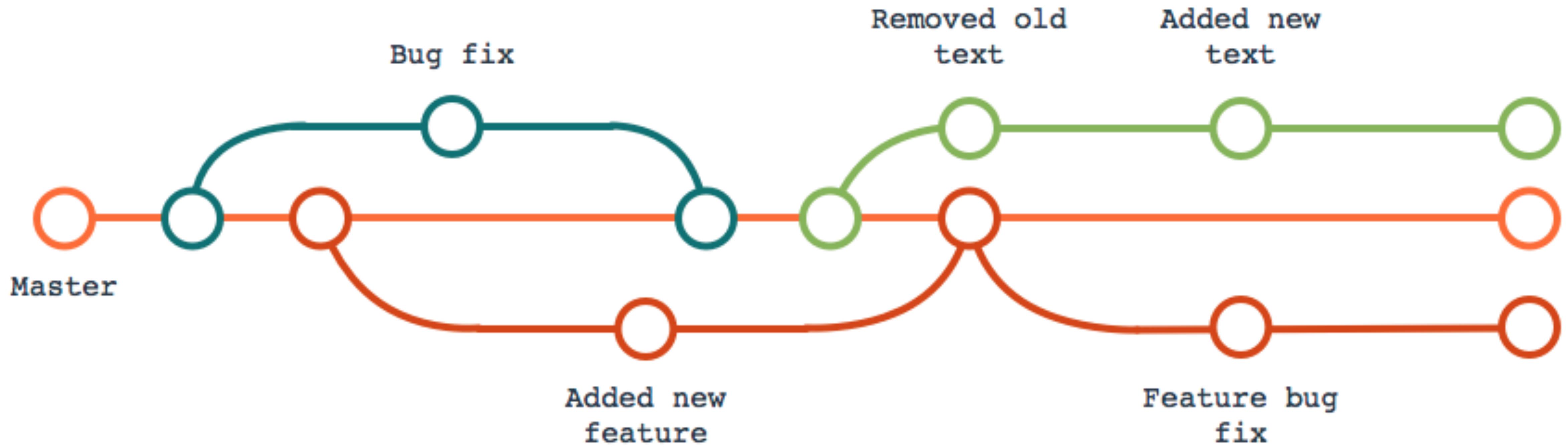
Environment



3.10

kaggle colab

Code Management



Master

Branch

Merge

Libraries

<https://www.mygreatlearning.com/blog/open-source-python-libraries/>
<https://github.com/vinta/awesome-python>

Linters



pycodestyle 2.8.0

Timing and Profiling

`%time` : Time the execution of a single statement

`%timeit` : Time repeated execution of a single statement for more accuracy

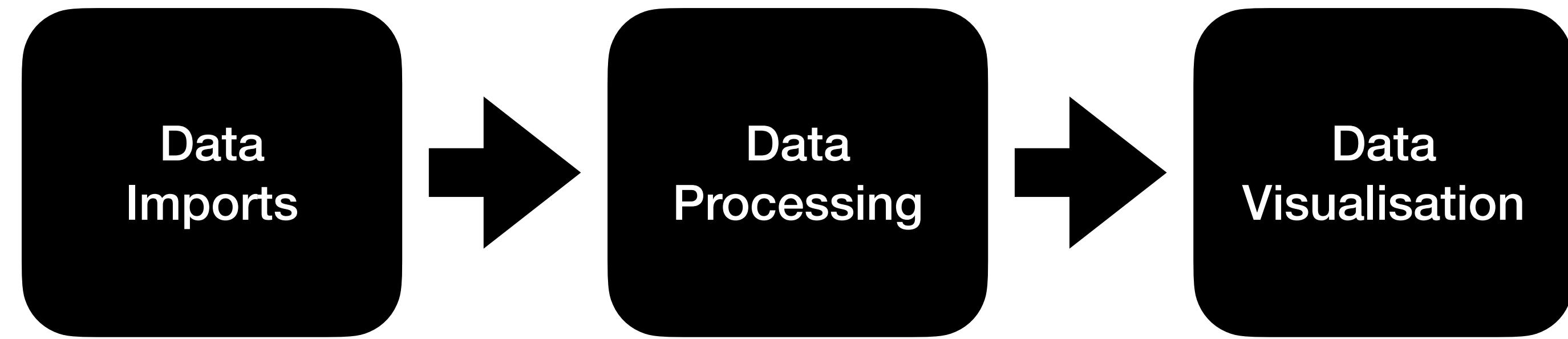
`%prun` : Run code with the profiler

`%lprun` : Run code with the line-by-line profiler

`%memit` : Measure the memory use of a single statement

`%mprun` : Run code with the line-by-line memory profiler

Parallel Processing



Imports

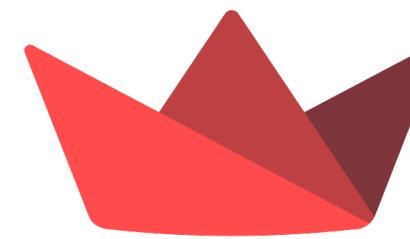


Google Cloud

<https://medium.com/@scarlett8285/why-is-python-programming-a-perfect-fit-for-big-data-5ac54ee8f95e>
<https://spark.apache.org/docs/latest/api/python/>
<https://www.michael-noll.com/tutorials/writing-an-hadoop-mapreduce-program-in-python/>
<https://aws.amazon.com/developer/language/python/>
<https://docs.microsoft.com/en-us/azure/developer/python/>

Processing - Algorithms

Visualisation - Dashboarding



Streamlit



plotly



Flask

Machine Learning



Optimisation

Networks



<https://networkx.org>

<https://geoffboeing.com/2016/11/osmnx-python-street-networks/>

<https://geopandas.org>

<https://python-visualization.github.io/folium/>

<https://udst.github.io/pandana/>

Resources

- [https://mbakker7.github.io/exploratory computing with python/](https://mbakker7.github.io/exploratory_computing_with_python/)
- <https://weblab.tudelft.nl>
- <https://docs.databricks.com/languages/python.html>
- [https://colab.research.google.com/github/tensorflow/examples/blob/master/courses/udacity intro to tensorflow for deep learning/l01c01 introduction to colab and python.ipynb#scrollTo=YHI3vyhv5p85](https://colab.research.google.com/github/tensorflow/examples/blob/master/courses/udacity_intro_to_tensorflow_for_deep_learning/l01c01_introduction_to_colab_and_python.ipynb#scrollTo=YHI3vyhv5p85)
- <https://codemy.com>
- <https://www.udemy.com>

How to get involved?



- <https://www.tudelft.nl/citg/aim/resources/data-driven-mobility-hackathon>
- <https://www.hackathonforgood.org>
- <https://www.meetup.com/girlcode/events/280963930/>
- Coding camps



- <https://www.tudelft.nl/citg/aim/theses>

Assignment

- Graded assignment and rubrics will be opened today
- Next lab session will be dedicated to questions on graded assignment
- Use issues pages to clear doubts
- Office hours on Monday and Thursday of week 9. Book atleast one day before!
- If you received **Sufficient** for two of your three GO/NO GO assignments and have completed two code reviews, that is sufficient for the graded assignment
- REMOVE your code review partner from your repository in order to avoid plagiarism