Welcome

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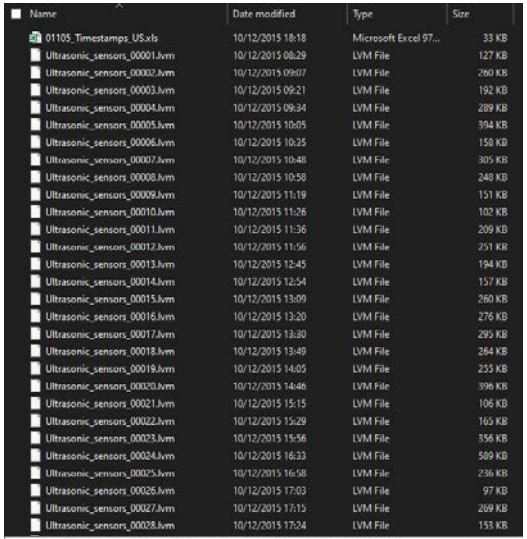
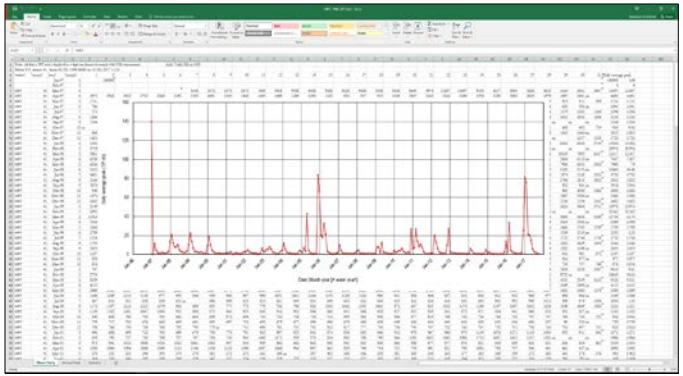
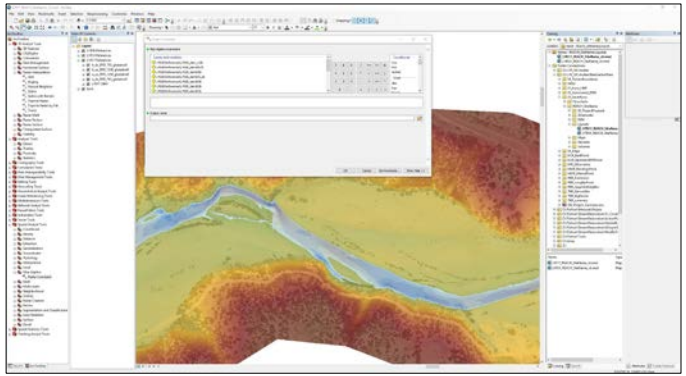
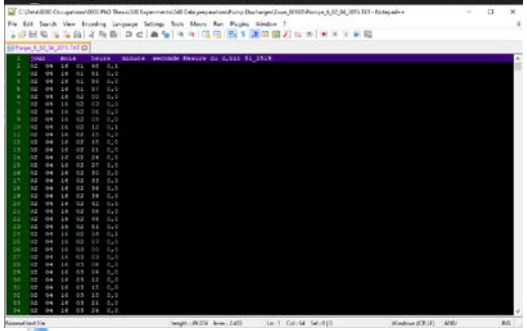
Digital Methods in Water Resources Engineering and Research

Data Analysis in Water Resources Engineering

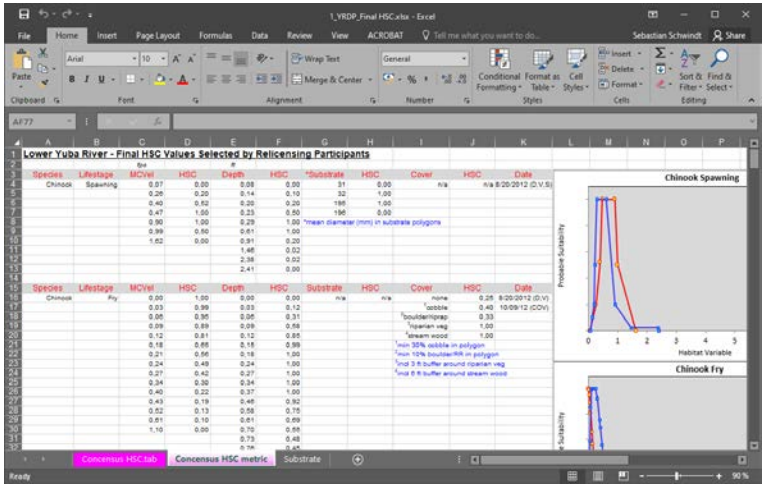


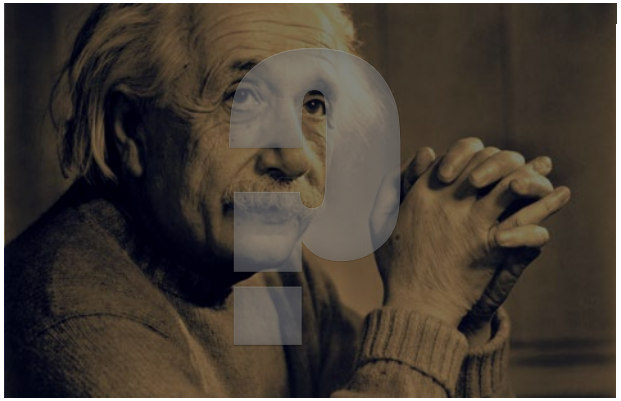






Data Analysis





source: https://jrbenjamin.com

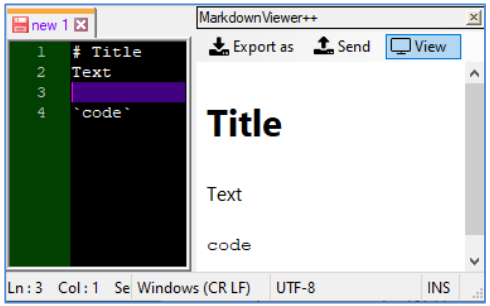
“Insanity is doing the same thing over and over again and expecting different results.”

Collaborate

Tools

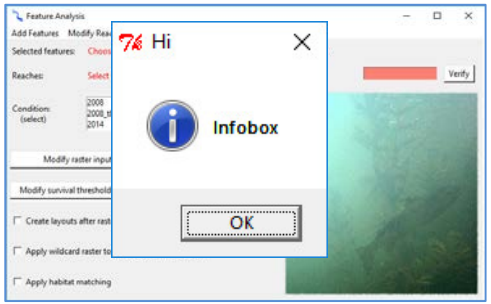
Working in teams, share data, and promote projects

- Introduction to git
- Documentation in Markdown language



Object-oriented programming with Python 3

- Install and create programming environments
- Data types, package import and simple scripting
- Functions and Classes
- Open/load, manipulate and write data files
- Create a Graphical User Interface (GUI)
- Geospatial programming

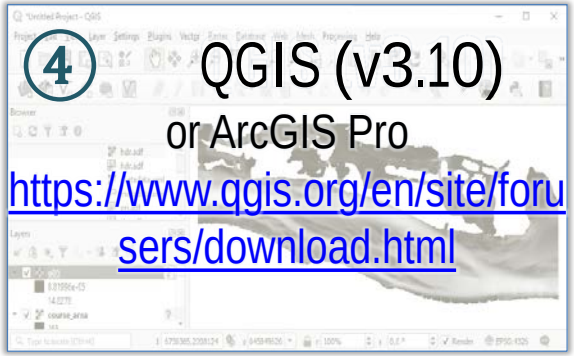


Your Project?

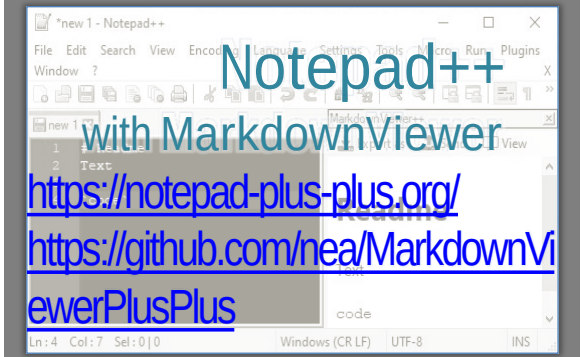
?

Software

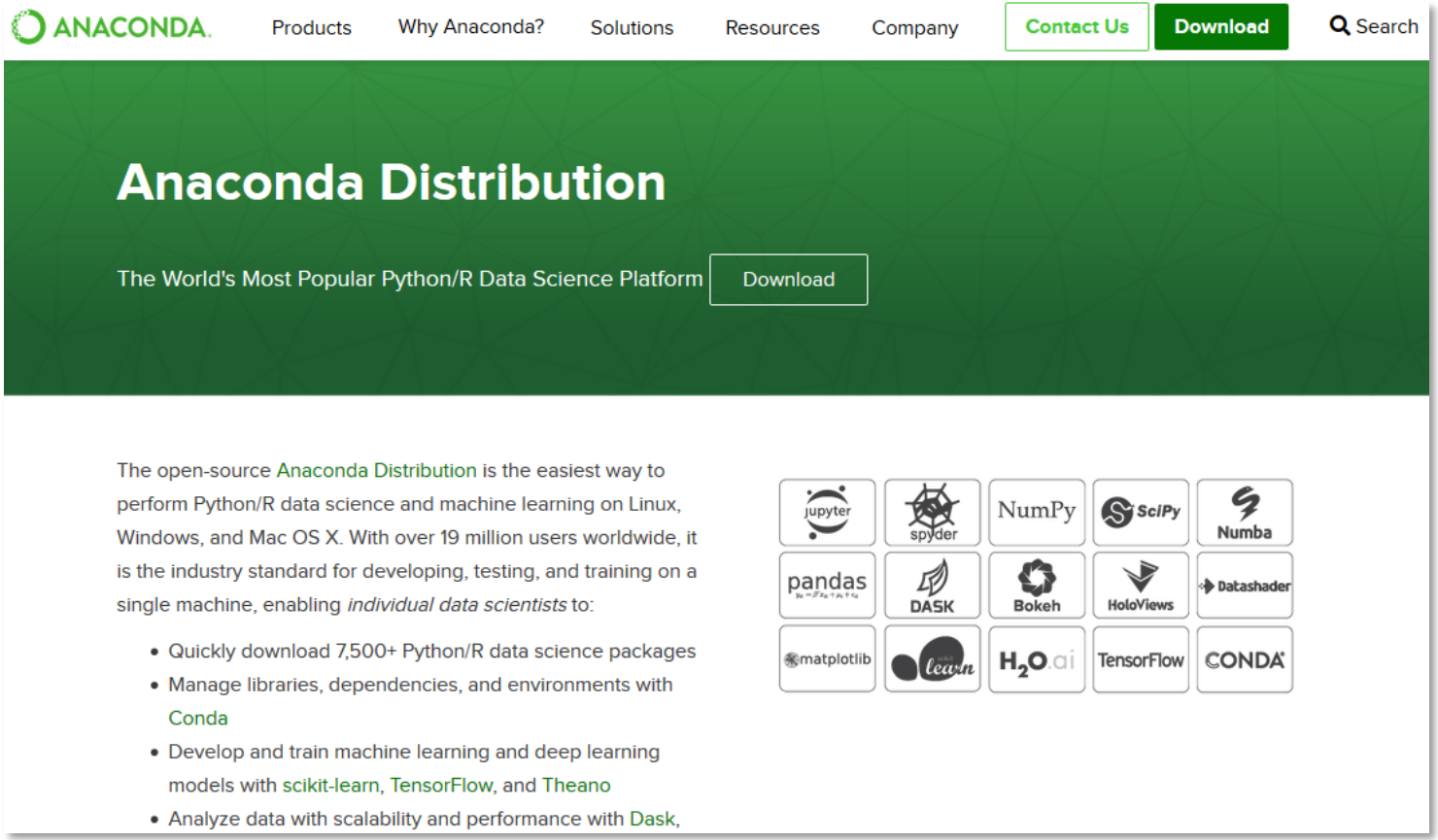
Tools



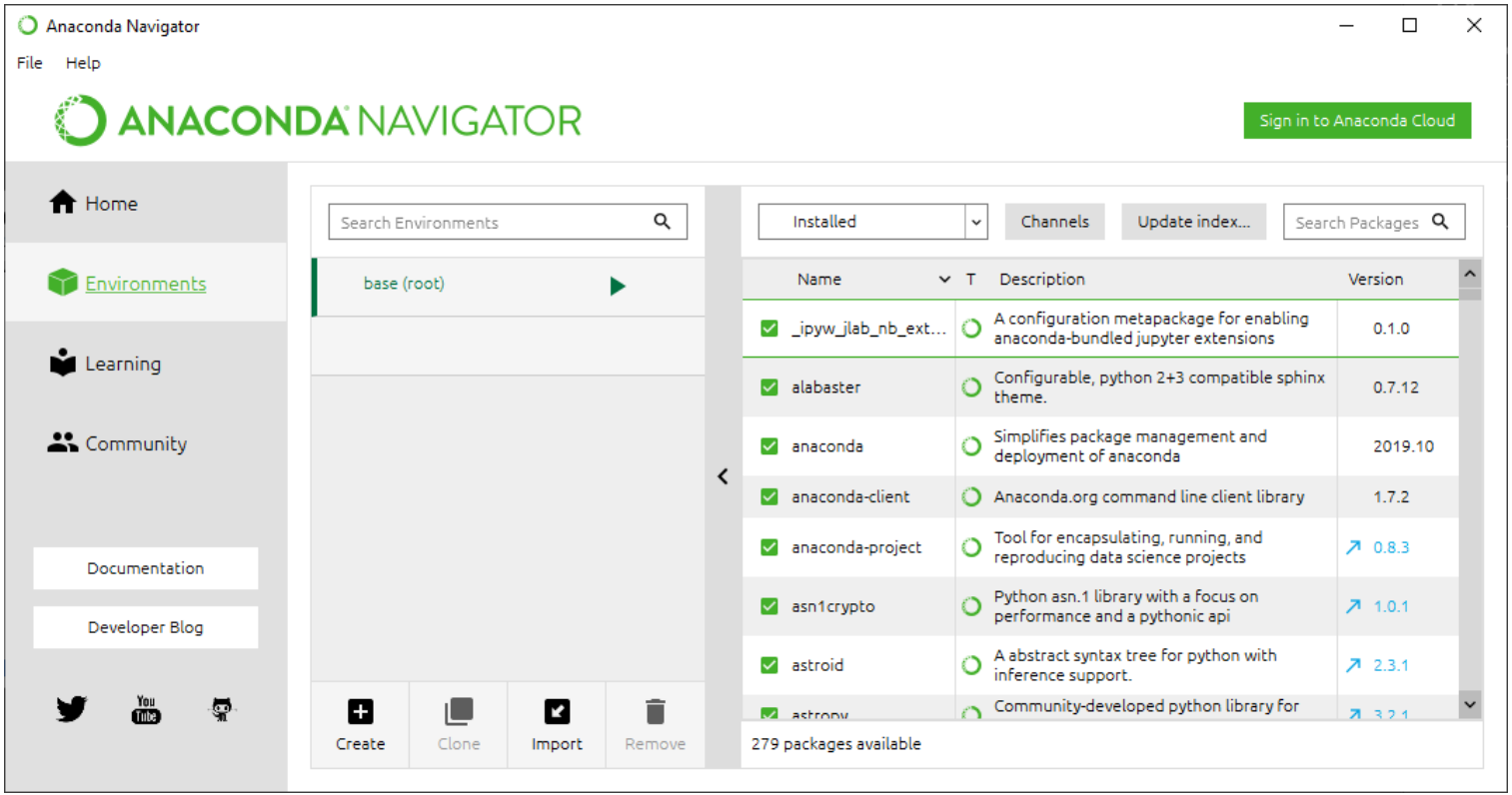
Optional



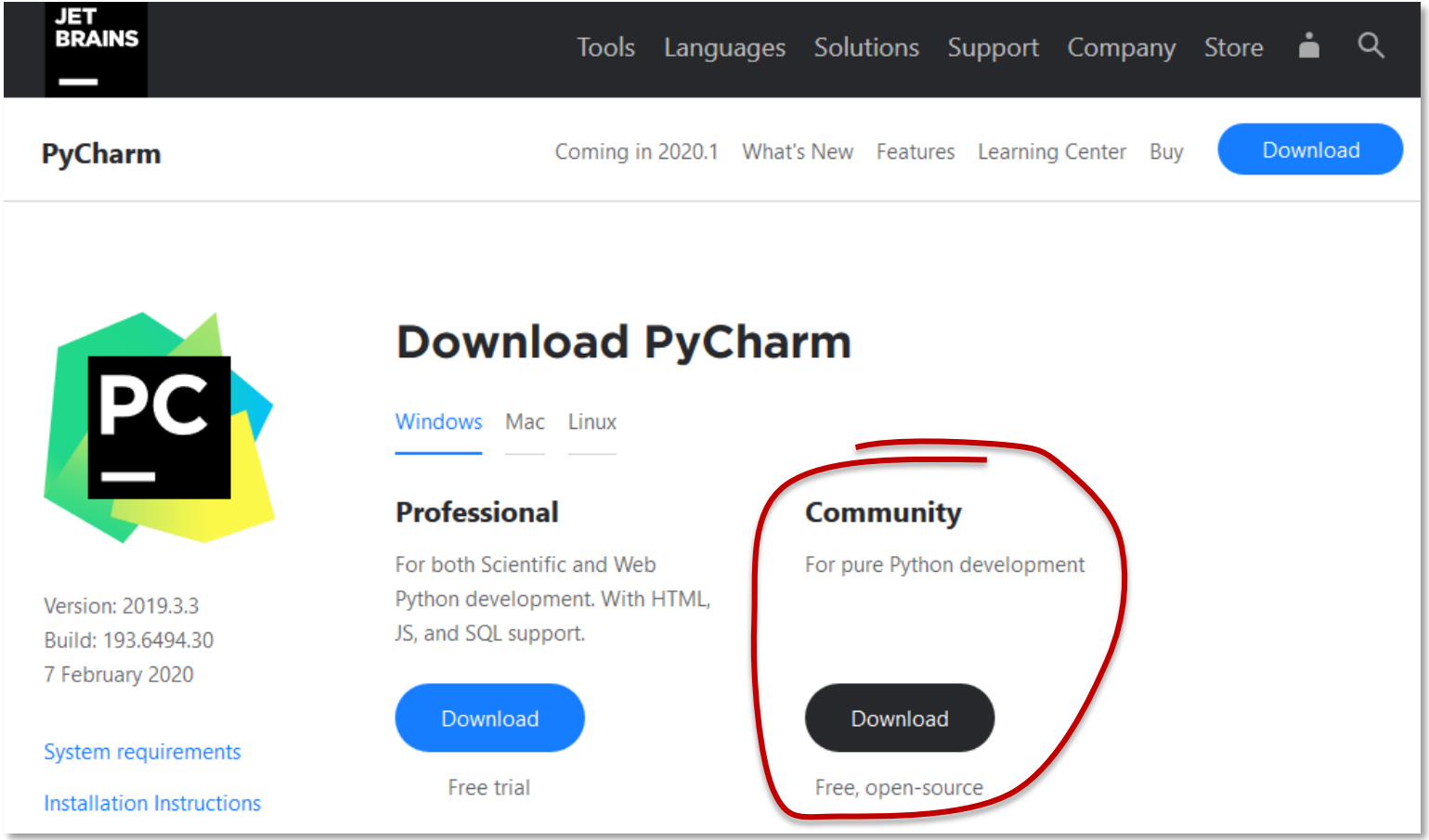
Anaconda https://www.anaconda.com/distribution/



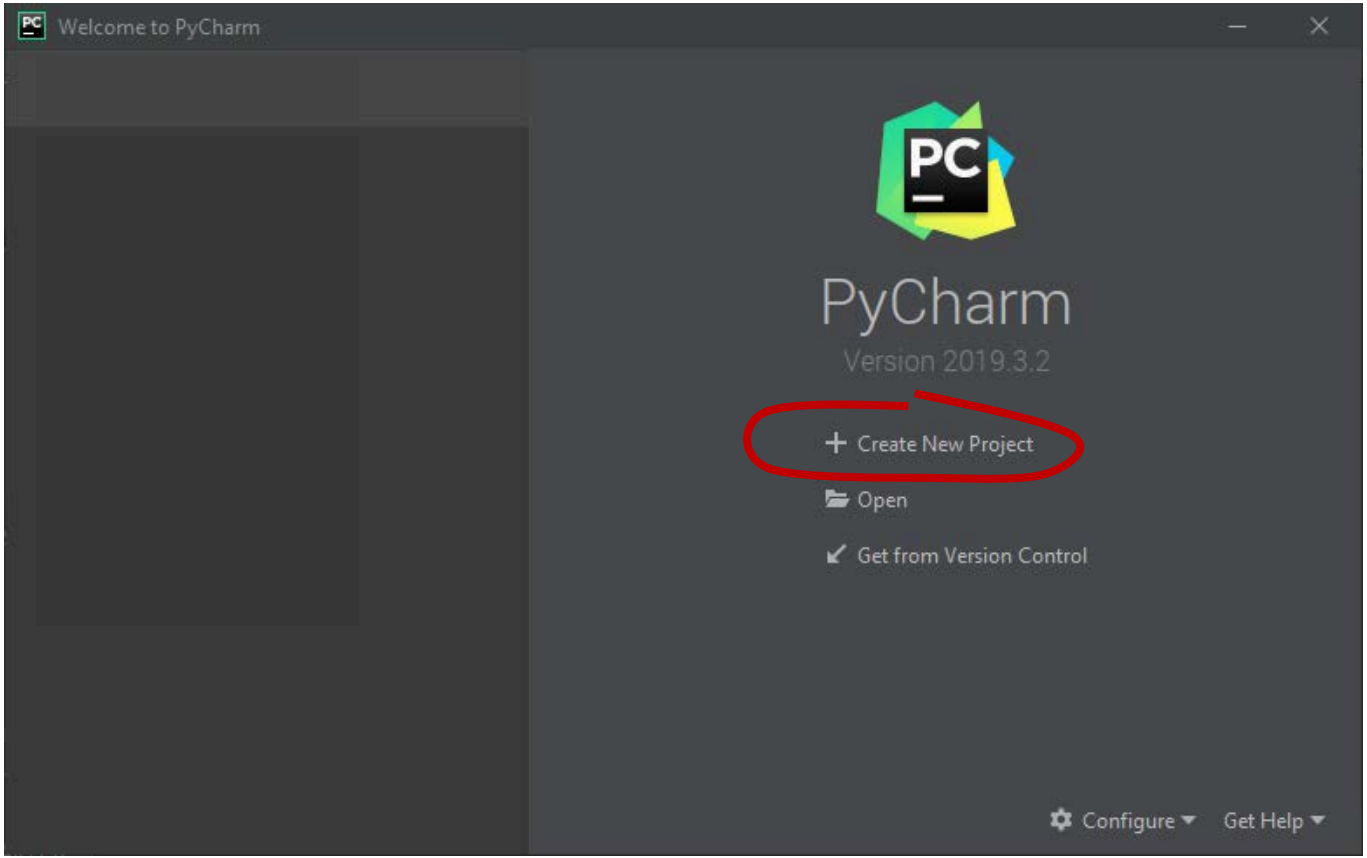
Checkout Environments in Anaconda Navigator: base (root)



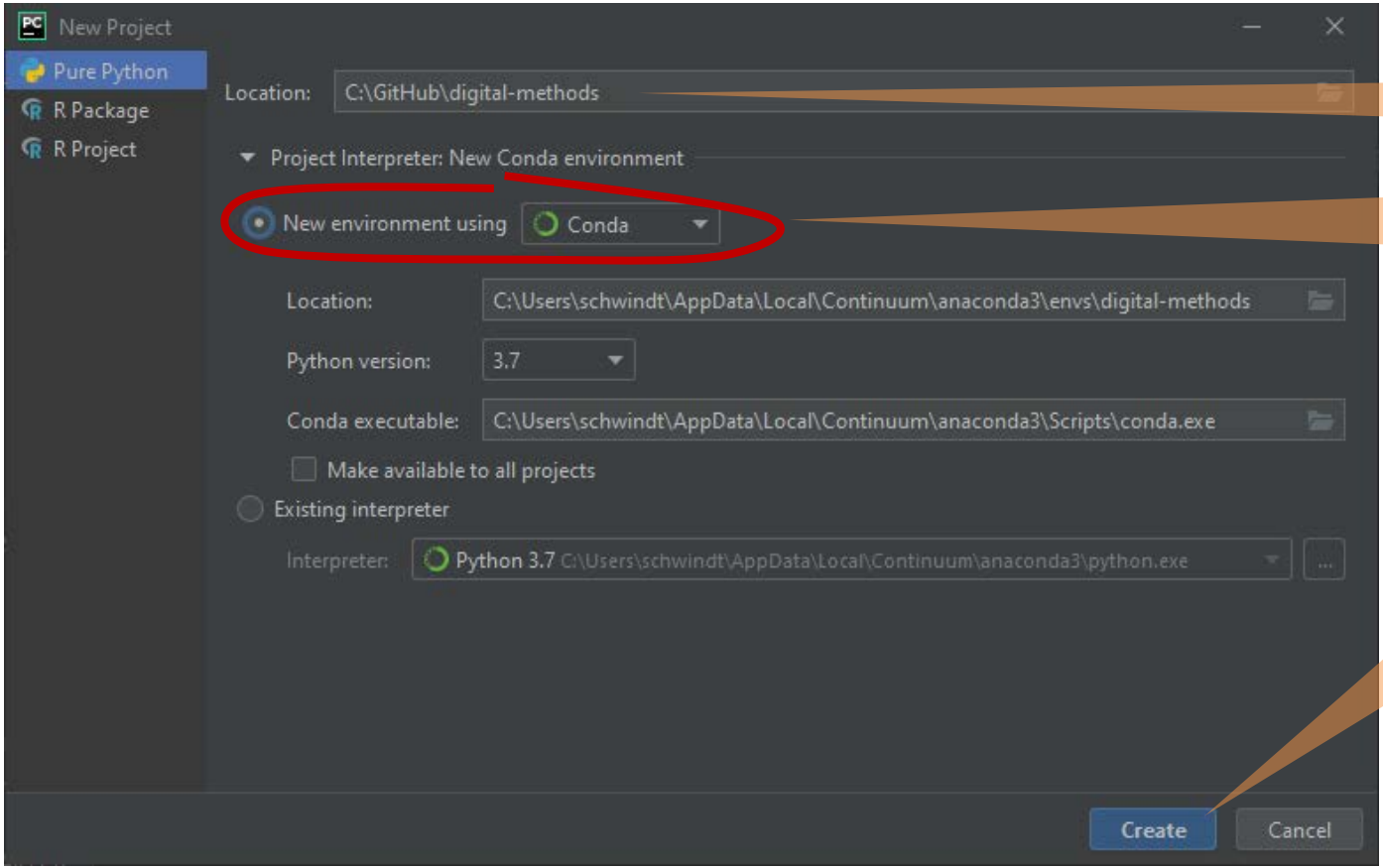
PyCharm: https://www.jetbrains.com/pycharm/download/



PyCharm


Welcome to PyCharm
PyCharm
Version 2019.3.2
Create New Project
Open
Get from Version Control
Configure
Get Help

PyCharm



Define location (e.g., C:\...\digital-methods)

Select “New environment using Conda”

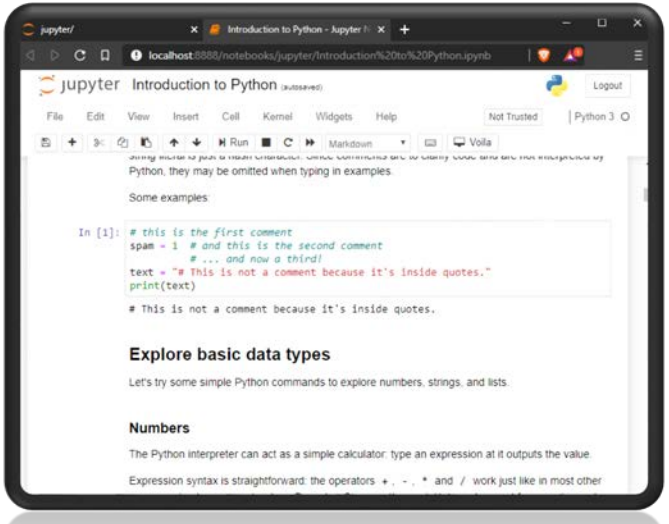
Create

All set & ready for the class ☺

Wrap up

General Information

- Interactive lectures with presentations and jupyter notebook short-exercises
- Register in ILIAS UND C@MPUS
- Clone Material from GitHub
- Evaluation in groups of 2 (max.3) students
  - 4 Assignments
  - Project



- Contact Dr. sc Sebastian Schwindt

  sebastian.schwindt@iws.uni-stuttgart.de
  office 0.920

General Information

Questions, Remarks or Request?