



ELE510 - Setting up the LAB environment

Professor: Kjersti Engan - kjersti.Engan@uis.no

TA: Tomasetti Luca - luca.tomasetti@uis.no



Universitetet
i Stavanger

Infection control in classrooms

- If you have respiratory symptoms - go home - contact your GP
- Keep social distance -- At least one meter
- Disinfect hands on the way in and out of the room
- Locked seats must not be used
- Registered students have priority
- Clean the table surface in front of you with disinfectant wipes (available in the room)
- Food and drink are not allowed in classrooms
- Follow the messages in your inbox at xxxx@student.no

Overview

- 7 assignments (mandatory, not graded)
 - 7 assignments must be approved to be able to take the final project.
 - The assignments consist of some theoretical questions and some programming (Python, openCV) exercises.
- Assignments will be given as Jupyter notebooks on CANVAS.
- You **must** deliver a single PDF file of the Jupyter notebook on CANVAS
 - A copy of the notebook can be asked to be uploaded together with the PDF file.

Anaconda + Jupyter (& Python)

- Anaconda
 - <https://www.anaconda.com/products/individual>
- Jupyter notebook
 - <https://jupyter.org/>
- Python 3.7
 - <https://www.python.org/>



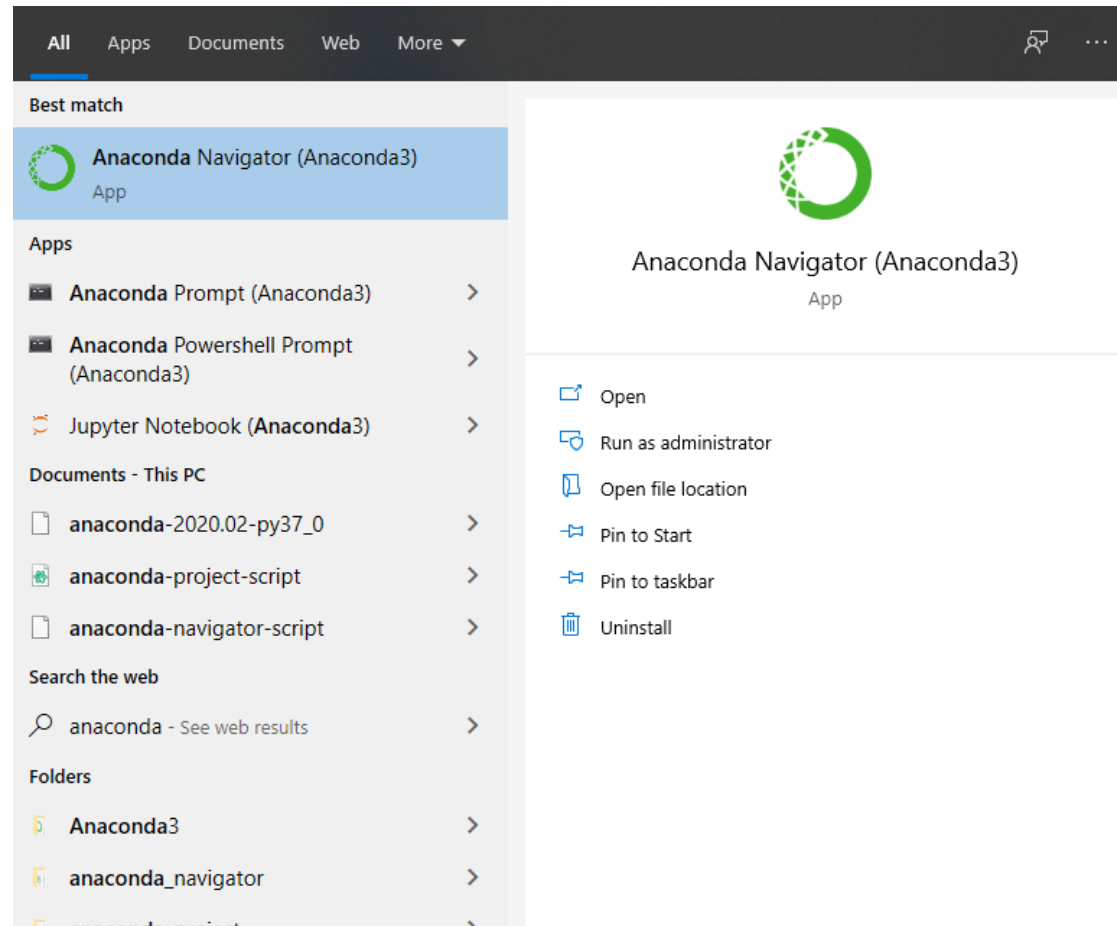
Jupyter notebook

- A notebook is composed of cells:
 - **Code cells:** used to write python code on them
 - **Markdown cells:** lightweight syntax (mixed between LaTeX and HTML) used for adding text, images, LaTeX equations, tables, ... → [documentation](#)
- **Important:** the assignment must be delivered on CANVAS in a single pdf file.
 - Must export the assignment notebook in a pdf format (File → Download as → PDF)
 - For theoretical questions, the standard way to answer them is through a markdown cell (for equations, use [LaTeX](#) commands)
 - However, it is possible to answer them in a separate way and insert a scan (or image) inside the notebook (more information during the assignments)

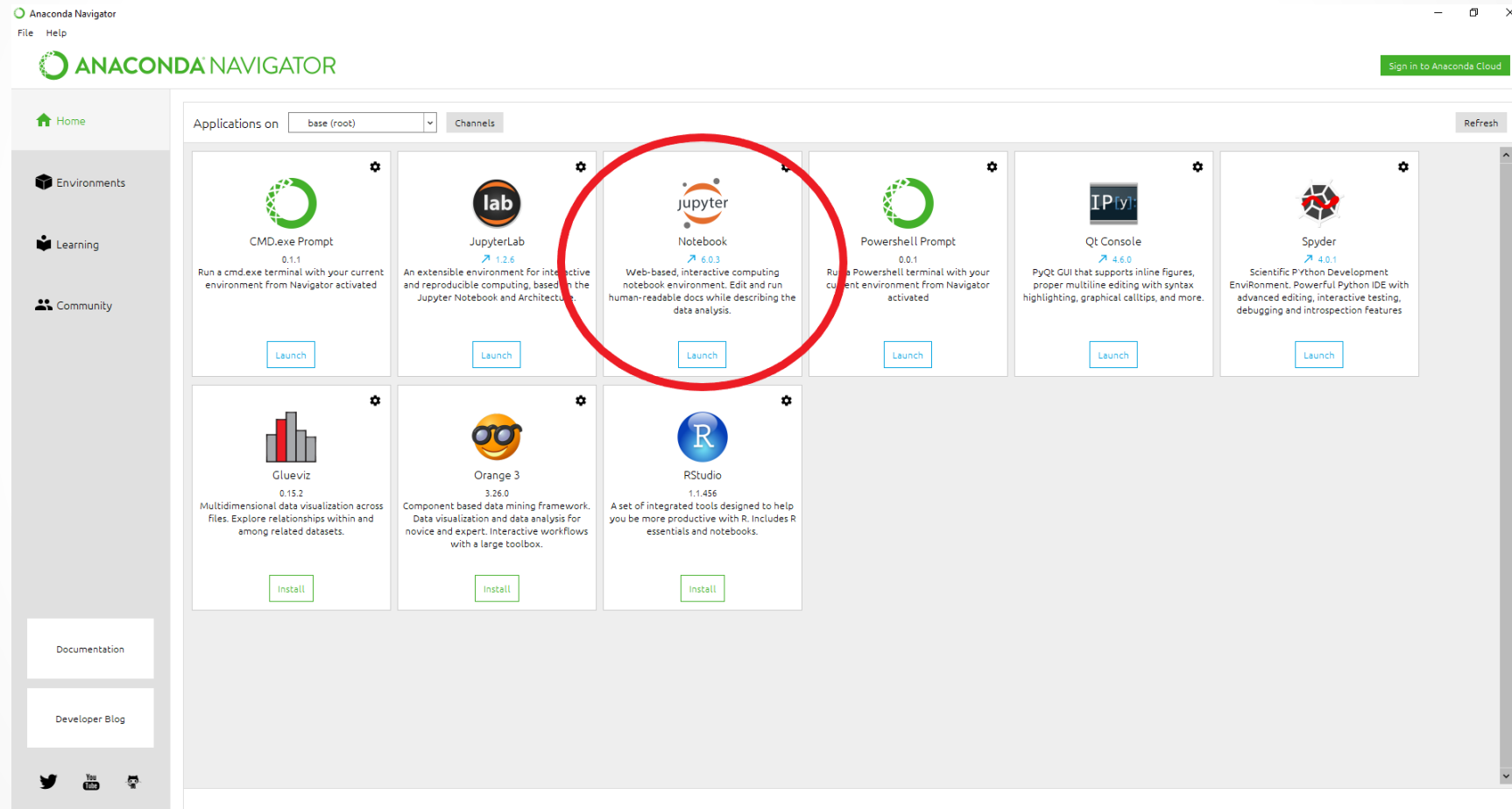
Download Anaconda

- Anaconda is already installed in all the pc in D-123 room, thus if you are using one of this pc you DON'T need to install Anaconda.
- If you don't have Anaconda installed in your personal laptop, you can install it via this link:
<https://www.anaconda.com/products/individual#Downloads>

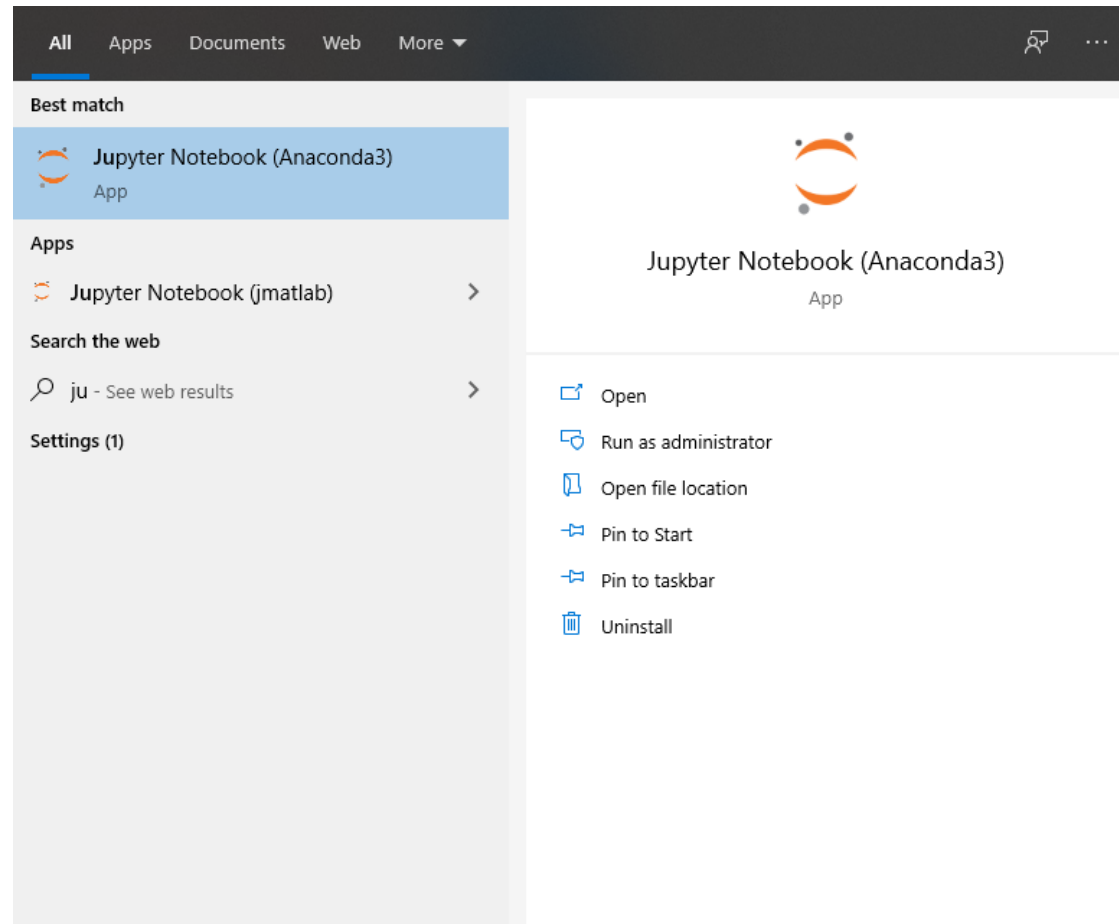
How to start a Jupyter notebook through Anaconda (1/4)



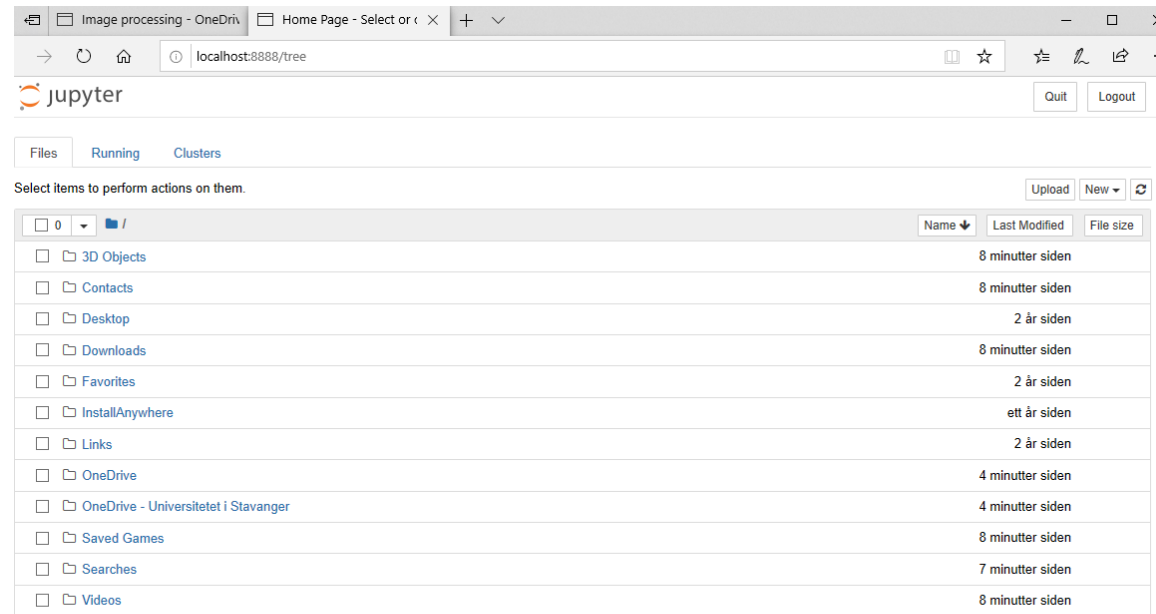
How to start a Jupyter notebook through Anaconda (2/4)



How to start a Jupyter notebook through Anaconda (3/4)



How to start a Jupyter notebook through Anaconda (4/4)



Useful packages for the assignments

- Opencv (<https://opencv.org/>)
 - OpenCV (Open Source Computer Vision Library) is an open source computer vision and machine learning software library.
 - [Documentation](#)
- Numpy (<https://numpy.org/>)
 - The fundamental package for scientific computing with Python
 - [Documentation](#)
- Matplotlib (<https://matplotlib.org/>)
 - A comprehensive library for creating static, animated, and interactive visualizations in Python
 - [Documentation](#)



Test the environment

In order to test the Jupyter environment:

- Download and open the Jupyter notebook that you can find on CANVAS,
- Edit the parts with “...” to complete the tasks,
- Run it and export as a PDF file.