Install stuff

This guide assumes that you have already downloaded PyCharm

PyCharm can be found here: https://www.jetbrains.com/pycharm/download/#section=mac The "community edition" is great, you don't need "pro". Make sure you download the correct one for mac/windows/linux

- These aren't the only ways to do things, but should be reasonably fail-safe

- Things may look a little different in different versions, but the names of the buttons and such should be pretty similar

Before we begin

- There is a difference between whether things are located locally on your PC and whether they are located in the cloud.
- Especially on new machines, you can often be fooled into thinking that things are located locally when they're actually in OneDrive or iCloud Drive.
- It can save you a lot of confusion in the future if you know what on your PC is local and what is in the cloud.
- If your code is hosted on-premises, everything will probably run much faster than if it's in the cloud.
- On mac, local files are those located under '/Users//...'<mitt_navn>, while files in the cloud are located under '/OneDrive/...' or '<ett_eller_annet>//iCloud/...'
- On Windows, local files are those located under 'C:\<mitt_navn>Users\\...'
- Play around a bit in 'Finder' or 'file explorer' and find out what you have locally and what you have in the cloud before moving on.

• NB: This procedure must be repeated when starting a new project.

• •	Welcome to PyCharm	
innlevering_5_kildekode ~/Documents/8_seering_5_kildekode		Location: /Users/vegar
innlevering_5 ~/Documents/8_seast/innlevering_5	PC	Project Interpreter: New
plast ~/Documents/8_semester/plast		
stat_term ~/Documents/8_semester/stat_term	PyCharm	
faststoffysikk ~/Documents/8_seter/faststoffysikk	Version 2018.1.3	
funkmat ~/Documents/tidlsemester/funkmat	★ Create New Project	
innlevering_4 ~/Documents/8_seast/innlevering_4	Check out from Version Control -	
Ass_04 ~/Documents/8_semester/plast/Ass_04	-N₄- Join a Recent Floobits Workspace	
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innlevering3 copy	i® Configure + Get Help +	

1) Open a new project

2a) Put it somewhere sensible* (NOT PyCharm Projects!)



*A sensible place would be, for example, '/Users//<mitt navn>Documents/mat1/code' (mac) or 'C:\Users\\<mitt navn>Documents\matte1\code' (windows) for files belonging to math 1.

NB: DO NOT have spaces or Norwegian characters in folder or file names It can go well, but if you have bad luck it can mess things up, so it Best to just avoid it

2b) Now we create the project folder



2c) Now we open the project folder

2d) Set up a "virtual environment". If you have installed Anaconda it is also possible to use a "Conda environment". Check that the "Base interpreter" is Python 3.7 or higher, if you don't have any Available Interpreter can be downloaded from: https://www.python.org/downloads/ Then you have to use the drop-down menu "Base interpreter" or click on the three dots and find the interpreter after downloading it.

	New Project					
Location: /Users/	vegardjervell/Documents/mitt_fantastiske_prosjekt					
Project Interpreter: New Virtualenv environment						
New environment using 🛃 Virtualenv 🗘						
Location:	/Users/vegardjervell/Documents/mitt_fantastiske_prosjekt/venv					
Base interpret	ter: 🏓 /usr/local/bin/python3.8	\$				
🗌 Inherit glo	obal site-packages					
Make available to all projects						
Existing interpr	reter					
Interpreter:	Python 3.7 /anaconda3/bin/python3.7	۰				

Here it must say '/.../python3xx' as long as it says python3 there you should be safe If it says 'install command line tools for python' or something like that, try downloading python from the link above. If that doesn't work, press 'create' and see the next page.

2e) Trykk "create"



For newer Mac/Windows computers

- For mac:
- You may get a window that something went wrong and that you need to install 'command line developer tools' or similar. If so, tap on 'OK', wait for it to finish, delete the project folder, and start from the beginning.
- For Windows:
- You might also get an error message that 'Creating virtual environment failed' or something like that. Then you can try enabling 'developer mode' as they explain here: <u>https://pureinfotech.com/enable-developer-mode-windows-11/</u>

Infopause – What is a virtualenv?

 A virtual environment (virtualenv) creates a folder in your project. There is a copy of the python-interpreter you have chosen. By default, it is put in a folder called "venv"

 New environment u 	ising 🜏 Virtualenv 🗢
Location:	/Users/vegardjervell/Documents/mitt_fantastiske_prosjekt/venv

- When installing packages (e.g. NumPy, SciPy, etc.) a copy of the package is installed in the "venv" folder.
- This ensures that your project still works even if you install python4 or NumPy get a reassignment that is not backwards compatible with what you have used in your project.
- In addition, it ensures better control over which packages you have installed for each project and which version of the package you use.
- In short, it can save you quite a bit of trouble

Now we are going to install some packages, customize steps 3 and 4 based on what packages you need in your project.

3b) pip install numpy + "enter"



If you get a strange error message from pip: Go to step 4 on the next page

NB: If you get this alert you need to upgrade to python 3

Customize according to which packages you need

...

3c) pip install matplotlib

pip install scipy

pip install pandas

Skip this if step 3 worked

4a) Go to "settings"

4b) Go to the tab "Project interpreter" and press the "+" button

Cancel

Apply



Skip this if step 3 worked

4c) Search for the package you want to install (e.g. "numpy") and press "install package"

	Available Packages				
	8				
10011p)	Description				
numpy-aarch64	NumPy is the fundamental package for array computing with Python.				
numpy-alignments	Version				
numpy-camera	120.2				
numpy-cloud	Author				
numpy-datasets					
numpy-demo	Travis E. Oliphant et al.				
numpy-ext	https://www.pumpy.org				
numpy-financial	https://www.humpy.org				
numpy-fracadf					
numpy-fracdiff					
numpy-groupies					
numpy-hilbert-curve					
numpy-html					
numpy-image-widget					
numpy-indexed					
numpy-ipps					
numpy-linalg					
numpy-linreg					
numpy-mips64					
numpy-mkl					
numpy-mkp2020					
numpy-ml					
numpy-nn					
numpy-partition					
numpy-posit					
numpy-quaternion	Specify version 1.20.2				
Ø	Options				
Install Package Manage Repositories					

4d) Repeat step 4c for the rest of the packages You will need (matplotlib, scipy, pandas and openpyx Finally, tick out the window "availible packages"

Skip this if step 3 worked

		Preferences					
	Q	Project: mitt_fantastiske_pros.	> Project Interpreter 💿 For cur	rrent project			
	Appearance & Behavior	Project Interpreter: 📑 Python	3.7 (mitt_fantastiske_prosjekt) ~/Docume	ents/mitt_fantastiske_prosjekt/venv/bin/python ᅌ 🔅			
	Appearance						
	Menus and Toolbars	Package	Version	Latest			
	System Settings	Pillow	8.2.0	8.2.0			
	File Colors	cycler	0.10.0	0.10.0			
		kiwisolver	1.3.1	1.3.1			
	Scopes	matplotlib	3.4.1	3.4.1			
hat h		numpy	1.20.2	1.20.2			
	Quick Lists	pip	9.0.3	21.1.1			
matplotlib requires		pyparsing	2.4./	- 3.0.0b2			
		setuptools	2.0.1	≥.0.1			
tO		six	1.15.0	1.15.0			
	Plugins	517					
	Version Control						
	▼ Project: mitt fantastiske pros @						
	Project Interpreter						
	Project Structure						
	Build, Execution, Deployment						
	Languages & Frameworks						
	▶ Tools						
		+					
		Package 'matplotlib' installed successfully					
	?			Cancel Apply OK			
				4e) Press			

Now you can see the installed packages here. In this example, I have only installed NumPy and Matplotlib, but as You can see there are several packages that ha Installed. That's because, for example, matplot some other packages (pillow and cycler) to work, but it handles beep for us Now we will test that you have installed things correctly and that everything works, this one the test checks that NumPy, Pandas, Openpyxl, SciPy and Matplotlib are installed. It also checks that you have downloaded the data files associated with the course.

7) Download and open "trojansk_hest.zip", it can be found on http://folk.ntnu.no/vegargje/ikke_itgk/trojansk_hest.zip

6) Move (or copy) the contents of the "trojansk_hest" folder to your project folder



8) Open and run launch_bankkort_hacker.py

	PyCharm File Edit View Navigate	Code	Refactor	Run	Tools	VCS	Window	Help	L_▲-J	*9
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		23	<pre>def path_</pre>	•						

9) Follow the on-screen instructions (if any)

10) When you get this picture you are done

