



Introduction to

VsCode, Git and Anaconda



KØBENHAVNS
UNIVERSITET

But first. Who am I?

- Feedback: who are you?
- Econ bachelor student (5. semester)
- Completed multiple online Computer Science courses from Harvard
 - I highly recommend CS50 if you are interested in how computers work
- Student assistant at Danmarks Nationalbank (+1year) | Financial statistics
 - Machine learning and api work in python and R, data manipulation and analysis in R and SQL. Developed multiple tools we use for quality assessments of data.
- TA in ProgEcon (my first class)
 - Very very open to feedback / critique. Please do not hold back! I can take it



Also...

- I just quit for a research assistant position at ROCKWOOL Fonden
 - Come talk to me if you are interested in my former position at DN's department for financial statistics (I would be happy to tell them about your programming skills!)



Visual Studio Code - Overview



- IDE (Integrated Developer Environment)
 - A "shell" to edit and debug source code
 - Source code is what you write (e.g. `print("i don't like mondays")`)
 - More info on python interpreter (from source code to machine code): [What is the Python Interpreter? \(How does Python Work?\)](#)
- Extensions
 - Integrate functionality into vscode (one application for everything!)
 - Python, R, SQL, C++,...
 - Copilot (ai assistant)
 - Git (version control)

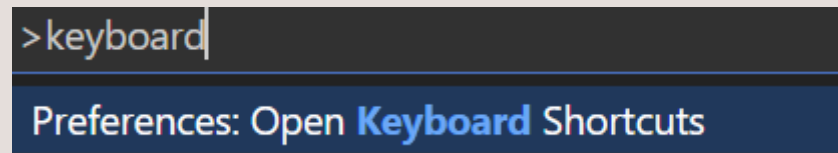


Visual Studio Code - Settings



Point and Click

Ctrl+shift+p



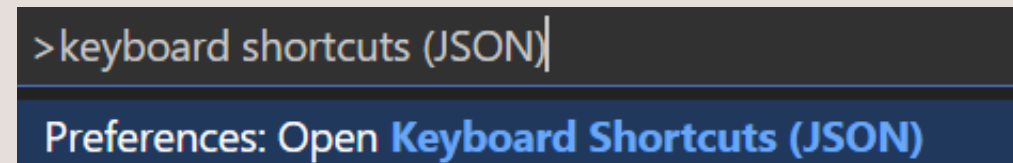
Find the shortcut / setting

| run python | | |
|-------------------------|--------------|------|
| Command | Keybinding | When |
| Python: Run Python File | Ctrl + Enter | - |

Change keybinding by clicking

JSON (JavaScript Object Notation)

Ctrl+shift+p

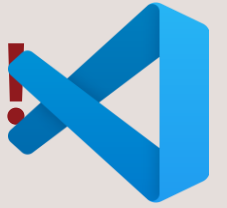



Change shortcut using commands / code

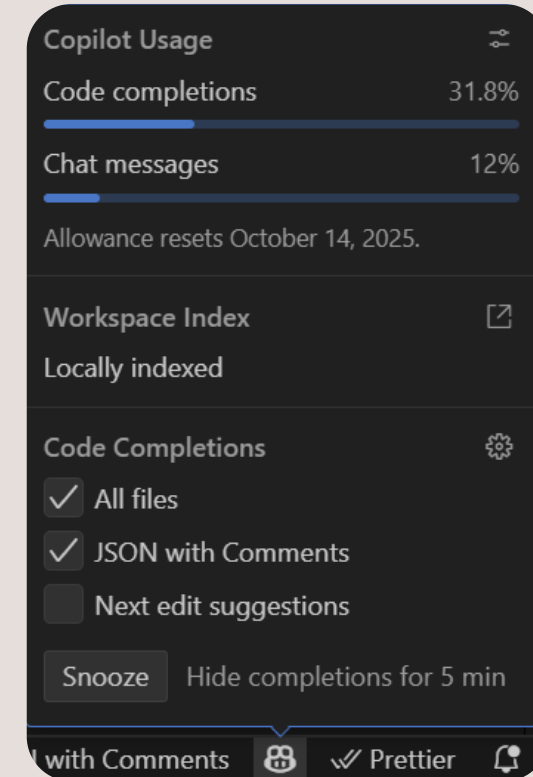
```
// Place your key bindings in this file to override the defaults
[
  {
    "key": "ctrl+enter",
    "command": "python.execInTerminal-icon",
    "when": "editorLangId == 'python'"
  }
]
```

Separate different keybindings by a ,

Visual Studio Code – Snooze the frog!

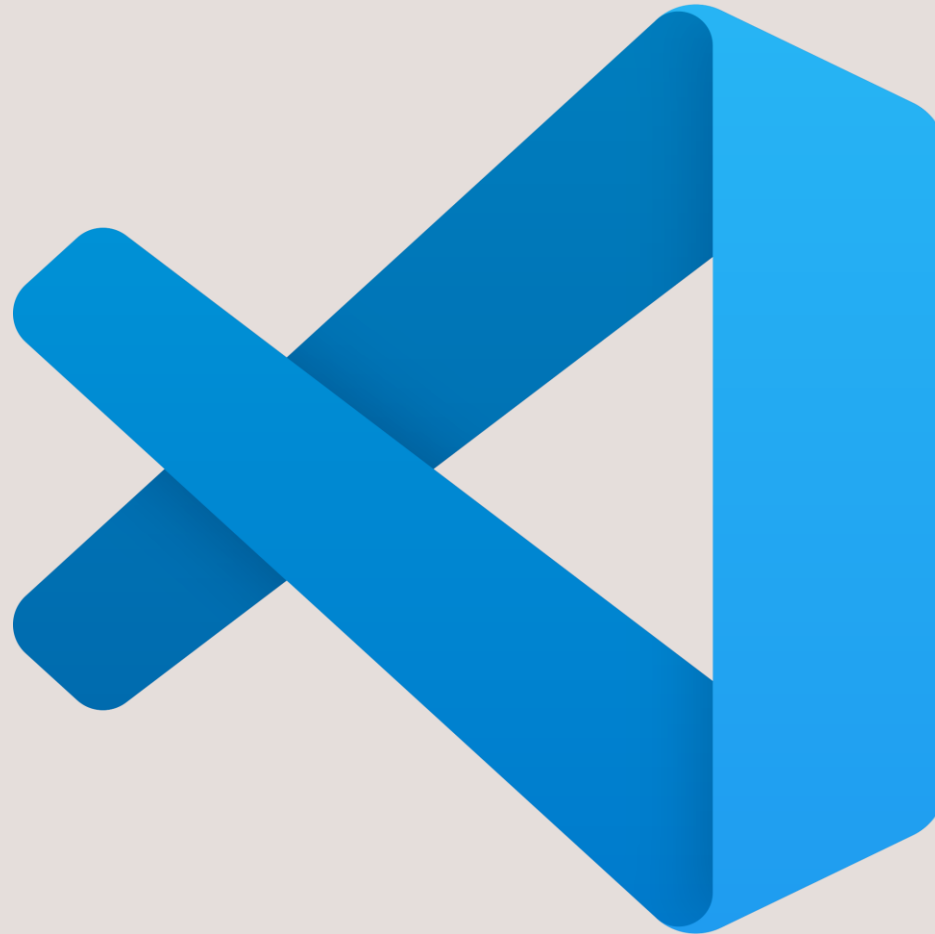


- The frog have many great ideas, which can be frustrating – or even worse: **Get in the way of learning!!!**
- To stop the frog:
 - Click on him / her () in the down right corner, and click "Snooze"

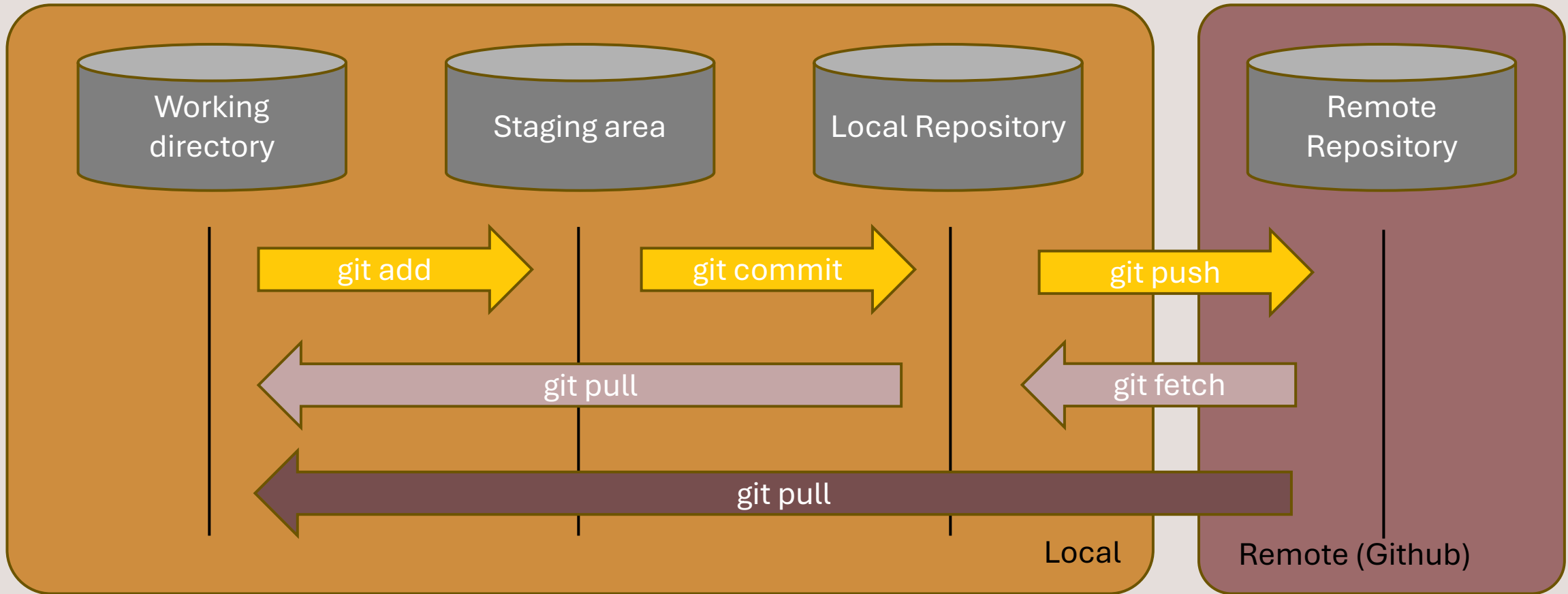


Let's try it out!

- Demonstration...



Git and Github



Git commands (the most used)



| Command | Decription |
|---|--|
| <code>git checkout "branchname"</code> | Switches working branch to "branchname" |
| <code>git add "filename_to_add.py" (or add .)</code> | Stages the specified file, so these later can be committed |
| <code>git commit -m "describe the commit"</code> | Creates a snapshot of the repository with the committed changes |
| <code>git push</code> | |
| <code>git merge "branchname to merge with"</code> | Tries to merge the "branchname to merge with" into the current working branch you have "checked out" |
| <code>git fetch</code> | downloads the remote repository into the local repository (usually named origin/main) |
| <code>git pull origin main</code> | Fetches and merges the remote repository's main branch into the current working branch |
| <code>git remote (-v / add origin "URL" / ...)</code> | Changing / viewing / initializing the remote repositories url |

Merge conflicts

- If two contributors / students edit the same lines of code, the merge command will not know what to do.
- You will be prompted to “resolve the conflict”
- Therefore: Don't work on the same aspects of the code on multiple devices.
 - Plan with your group what functions / features you each work on.



Let's try it out!

- Demonstration...



Anaconda?



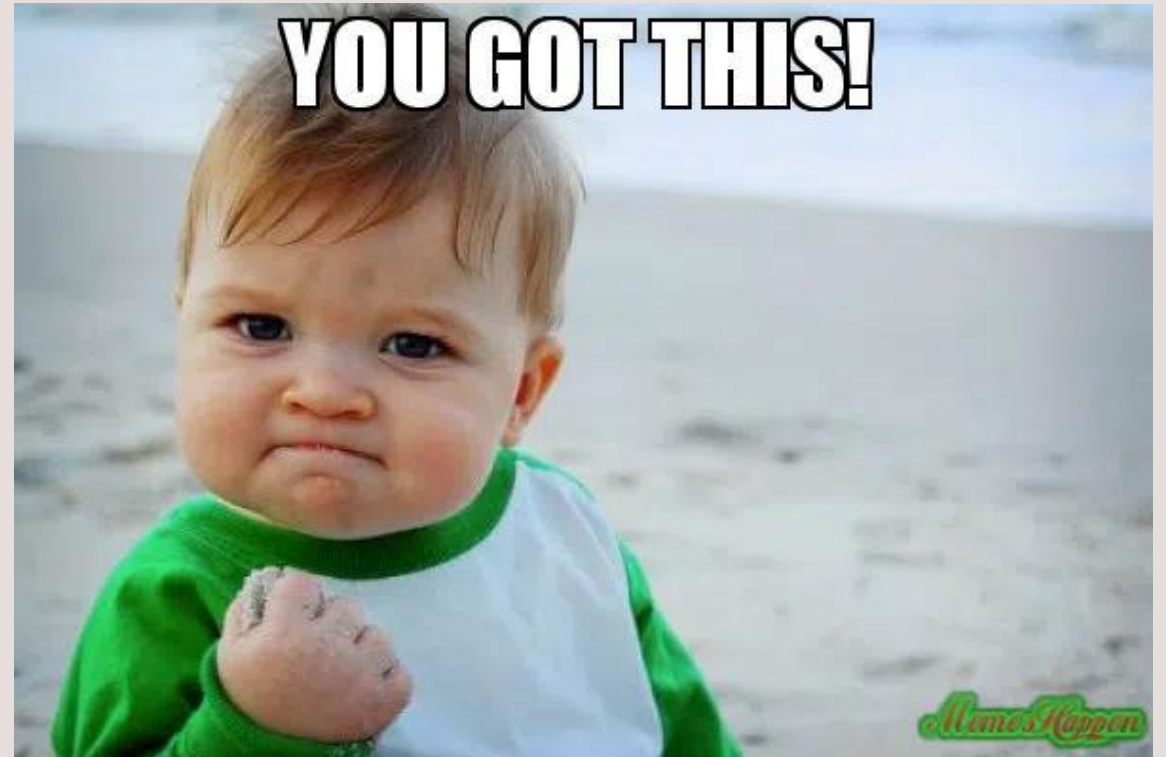
- In short: Anaconda manages and stores your python interpreter, and downloaded modules (pandas, numpy, matplotlib,...)
- To install new packages use
 - `conda install <package_name>` or `pip install <package_name>`

```
# Replace <PACKAGE> with the name of the package you want to install  
conda install <PACKAGE>
```



Let's code

- problem_set_1
 - From Jeppe and Brigittas Github repository
- Always remember that
 - I am here to help!
 - I don't care if your question is “good” or “bad”! – just ask, even if it's about something from $t > 2$ weeks ago



QUESTIONS?

