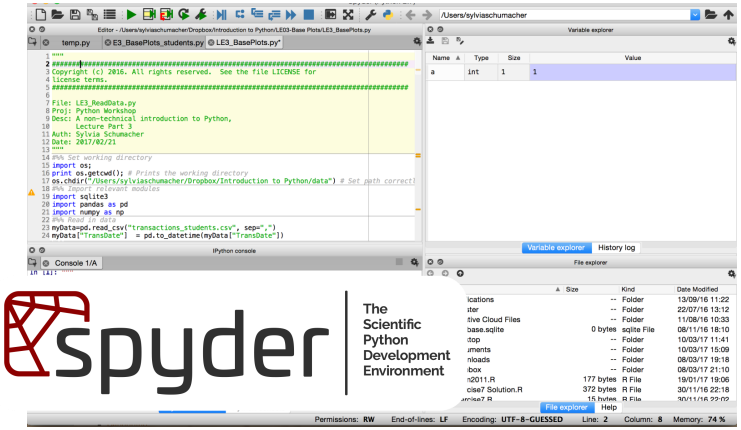
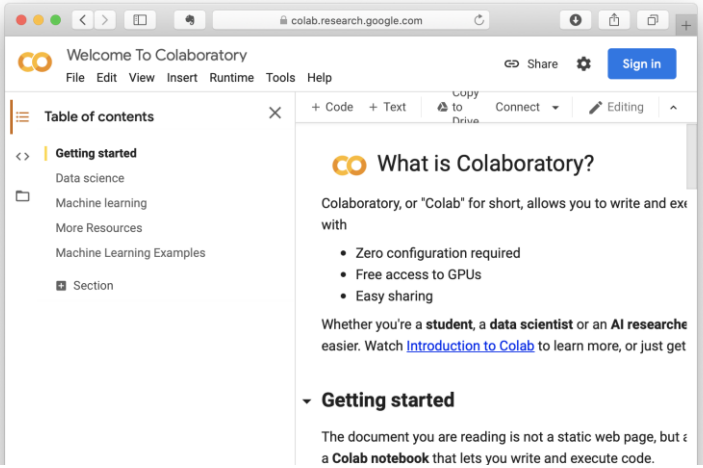
Working with a local code editor

Online versus offline programming environments

Local development



Cloud-based development



What is Spyder?
Spyder is an open-source IDE for Python

- Spyder is an acronym for "**S**cientific **PY**thon **D**evelopment **E**nvi**R**onment"
- Spyder is an integrated development environment (IDE).
- It provides tools for writing Python code:
  - Python Console
  - Enhanced editor
  - Workspace manager
  - Debugging Tool
- Available for all operating systems.

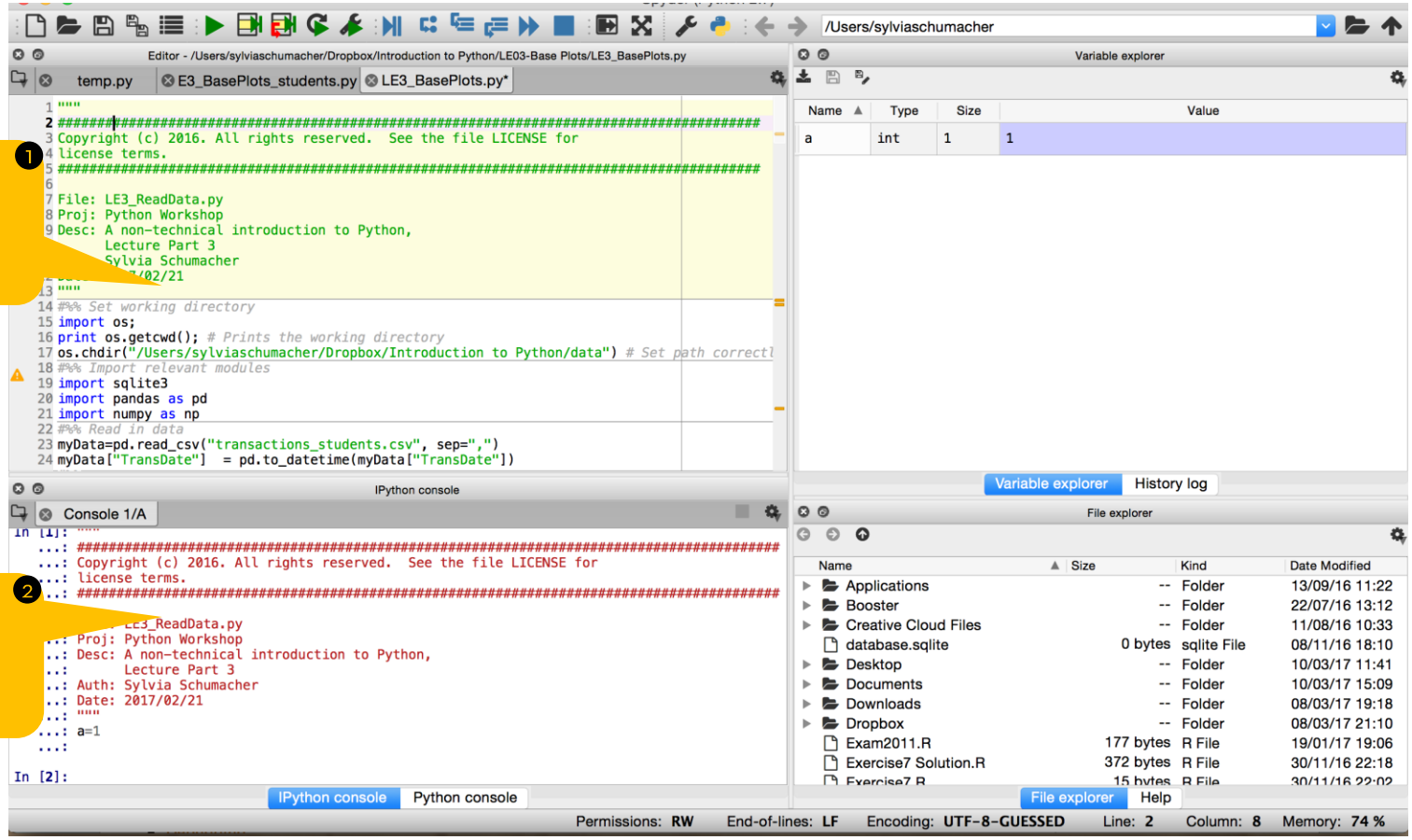
https://pythonhosted.org/spyder/

What is Spyder?

Spyder makes it easy to write Python code

Text editor for writing your Python code

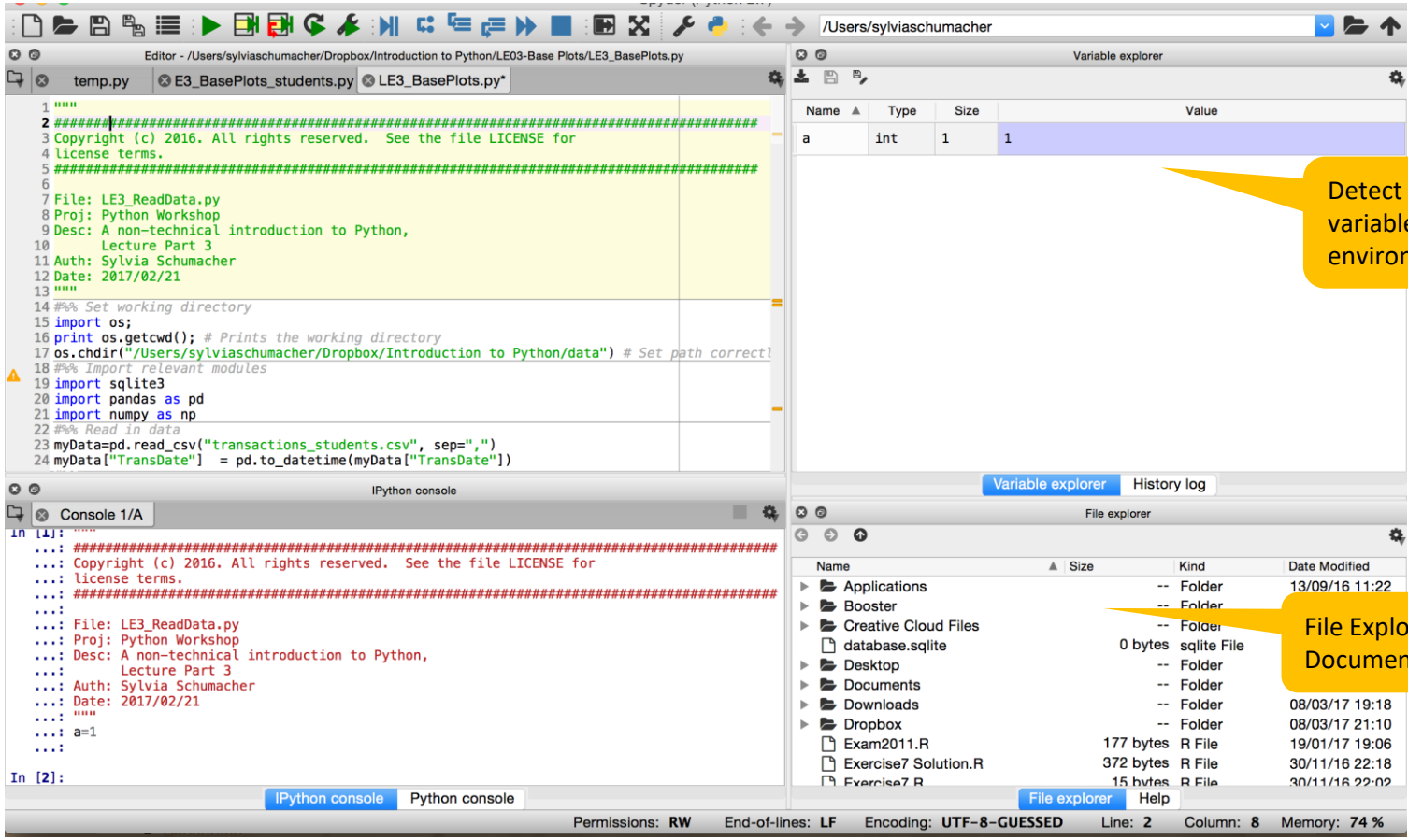
Console where you can run code



Note: Activate the following option: View > Window Layout > Rstudio Layout

What is Spyder?

Spyder makes it easy to write Python code



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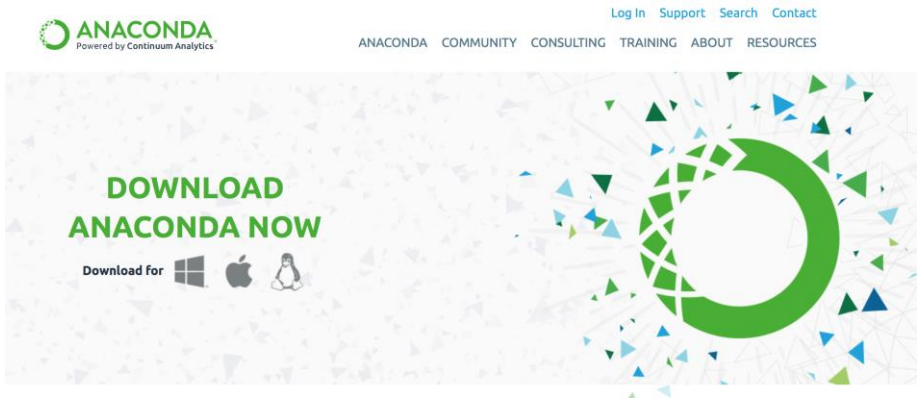
What is Spyder?
If you don't like Spyder, alternatives exist

Other Python compatible IDEs include:

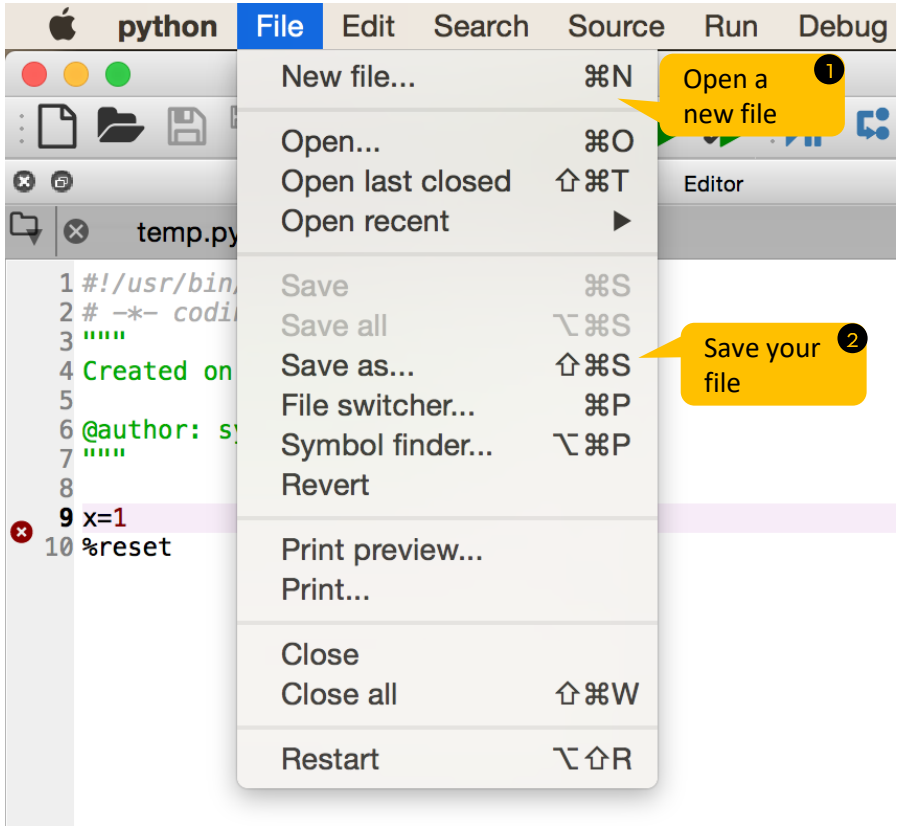
1. Eclipse / Visual Studio / …
2. Text editors, e.g.:
   - Visual Studio Code
   - Sublime
   - Emacs
   - TextWrangler
3. PyCharm / Ninja IDE / …

Alternative Python distributions such as Anaconda can make your life easier

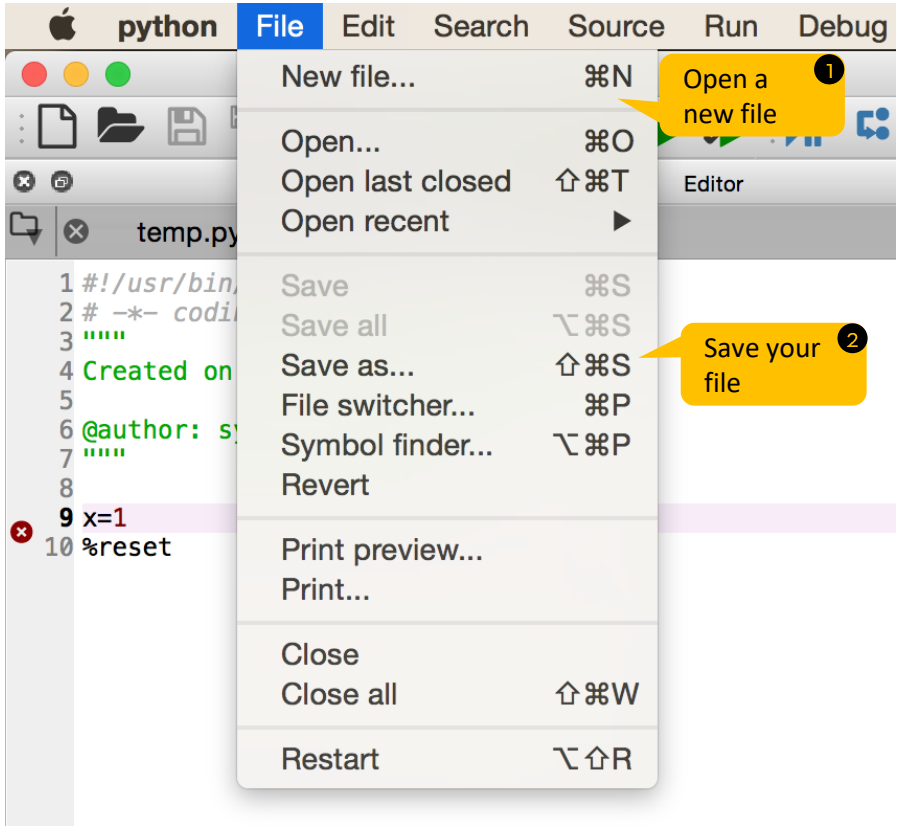
- Instead of the standard Python distribution (https://www.python.org/), you can use an alternative Python distribution such as Anaconda. These make the installation process and access to additional functionalities easier.
- Anaconda (https://www.anaconda.com/) includes over 100 of the most popular Python, R, and Scala packages for data science (size >3 GB!).
- Part of Anaconda is "**Conda**", a **package, dependency and environment manager**, which allows easy installation of >700 of the most important packages.



Use the code editor in Python to run Python code



Use the code editor in Python to run Python code

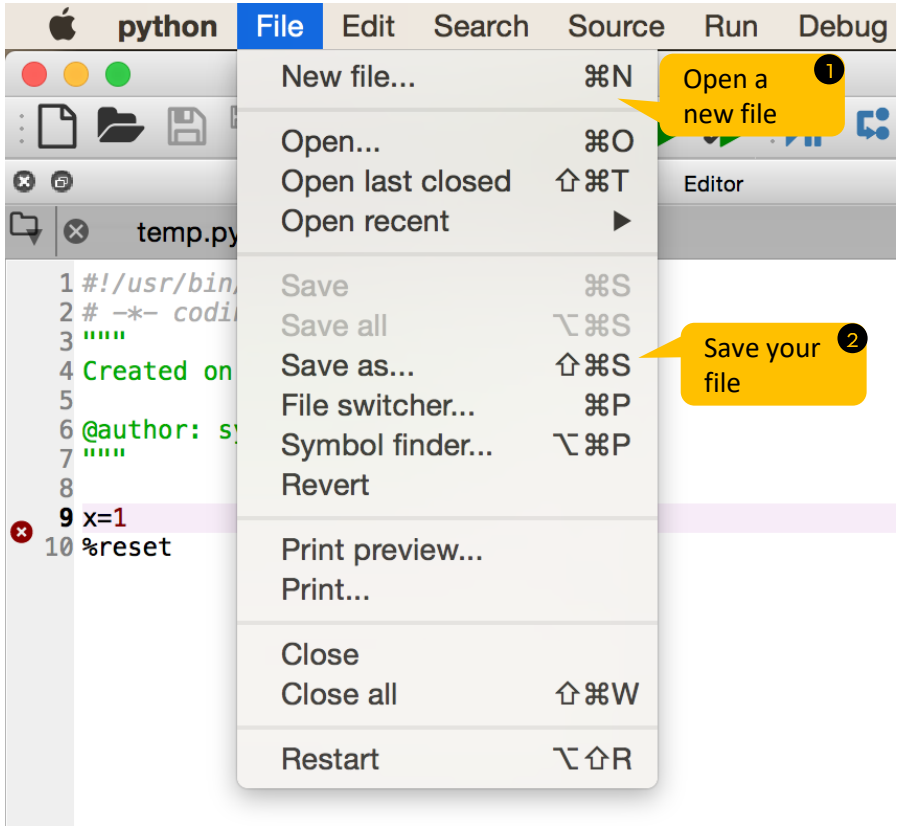


Write and run the following code:

"#%%" introduces cells allowing to run your code cellwise 3

```
#%%
print("This is my first line of
      code.")
#%%
```

Use the code editor in Python to run Python code

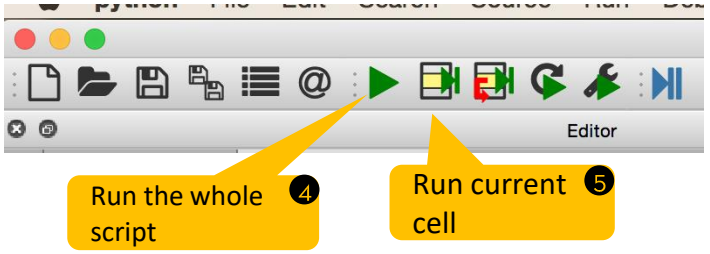


Write and run the following code:

"#%%" introduces cells allowing to run your code cellwise 3

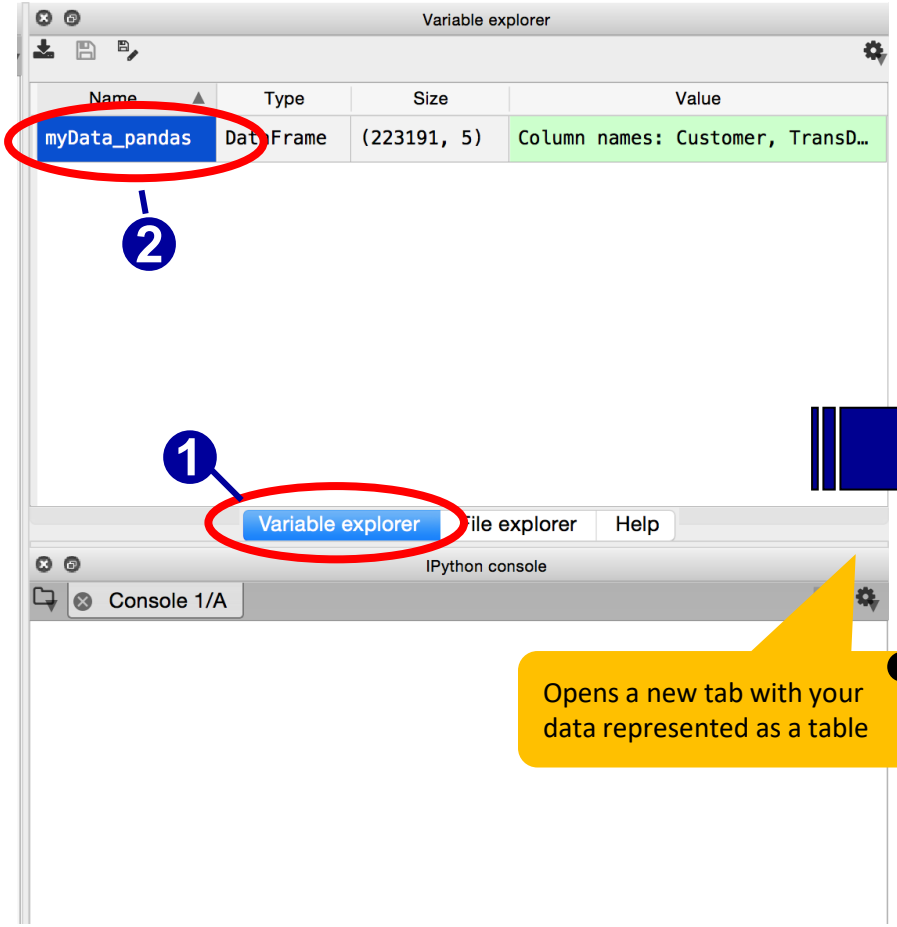
```
#%%
print("This is my first line of
      code.")
#%%
```

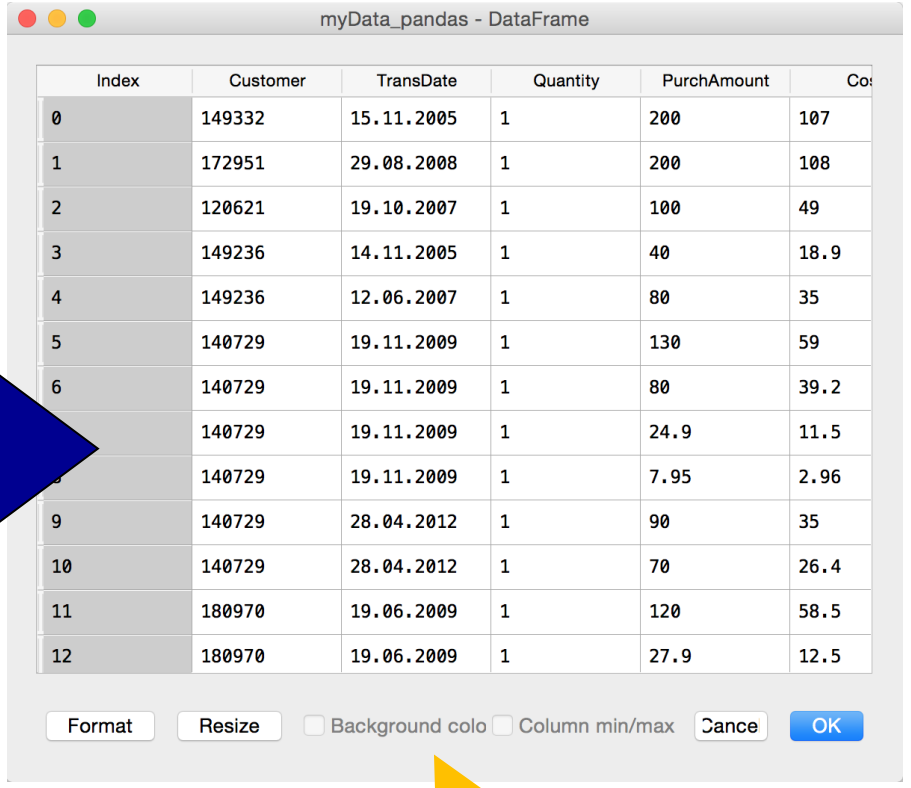
Run your code (and watch what happens in the console):



- Shortcuts for running a cell:
  Windows: Shift + Enter
  Mac: Ctrl + Enter

Spyder offers further functionalities





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