UNI FREIBURG

Python Course	WT 24/25

Tutorial 12

Exercise 1 (Setup poetry for the python-course repo)**.**

This exercise teaches you how to use the `poetry` package manager for your daily workflow, whilst being able to switch to a standard virtual environment if needed at anytime.
Use `poetry init` to create a new `pyproject.toml` file in the root directory of the `python-course` repository. Add needed dependencies for the tutorial sheets to it. You can also specify the sample package `portfolio-analytics` as a dependency in the `pyproject.toml` file via

```
portfolio-analytics = {path = "path/to/portfolio-analytics", develop = true}
```

to install the package in editable mode. Use a poetry environment in Pycharm and make sure that the tutorial solutions run correctly with the new setup.
Create a `requirements.txt` file from the `poetry.lock` file, switch back to a standard virtual environment, and install the dependencies from the `requirements.txt` file. Again make sure that the tutorial solutions run correctly with the new setup.

Exercise 2 (Generate documentation from docstrings)**.**

In the `portfolio_analytics` package in our GitHub repository, there is a `README_Sphinx.md` file that explains step-by-step how to generate documentation using Sphinx. Follow the `README_Sphinx.md` guide to generate documentation for the `portfolio_analytics` package and view the generated documentation in a web browser.
Add a brief introduction with sample usage as a `.rst` file to the `docs/source` directory and rebuilt the documentation.

Exercise 3 (Build and install package)**.**

Build the `portfolio_analytics` package in our GitHub repository and install on your system. Verify that the package is installed correctly by opening the Python shell, importing the package, and running a function from it.

Exercise 4 (Publish package on TestPyPI)**.**

Publish the `portfolio_analytics` package in our GitHub repository on TestPyPI. Verify that the package is available on TestPyPI by searching for it.

Exercise 5 (Read The Docs)**.**

Follow the instructions on the Read The Docs website to create an account and link your GitHub repository to Read The Docs. Build the documentation for the `portfolio_analytics` package in our GitHub repository on Read The Docs.