Practical Data Analysis with Python

Summer 2018 — Homework assignment 02

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This homework exercise gives you the opportunity to familiarize yourself with the Git process of collaborating with other people. While this homework assignment is optional, I still strongly encourage you to participate, since later on, we will use this exact same process to obtain and submit your exam homework projects. So this assignment gives you a free learning opportunity to prepare for the upcoming graded homework projects.

1 Prerequisites

This homework exercise assumes that you successfully completed the first homework exercise; most notably, you will need a working Git setup and your Github account.

2 The Git workflow

The basic Git workflow is described in the chapter GitHub - Contributing to a Project of the Pro Git book.

On that page, all the steps on the GitHub website and all the Git commands you need are described. In our case, you need to

1. Login to the GitHub website

2. Go to the course repository `https://github.com/iup-bremen/pdap-2018`

3. Create a *Fork* of the repository

4. Clone your fork of the project to your computer:

   ```
   git clone git@github.com:YOURGITHUBUSERNAME/pdap-2018.git
   ```

5. Create a branch for this homework assignment:

   ```
   git checkout -b homework2_YOURLASTNAME
   ```

   One word of caution (this only applies to the PDAP-2018 course repository): Make sure to not modify the *master* branch; always checkout a new branch before modifying any files in the repository. Especially, **never** commit anything to the *master* branch of this repository, as this will complicate future updates to the course repository.

6. Complete the exercises in the homework notebook (see below)

7. Commit the changes you made to the notebook file:

   ```
   git add homework/PDAP2018_Homework-02_YOURLASTNAME.ipynb
   git commit [...]
   ```

8. Push your homework branch to GitHub:

   ```
   git push origin homework2_YOURLASTNAME
   ```

9. On the GitHub website, you will see that GitHub 'noticed' that you pushed the branch; you can now press the green *Compare & pull request* button

Et voilà – you submitted your homework ☺

3   Basic Python in the Notebook

In the course repository, you will a file `homework/PDAP2018_Homework-02_template.ipynb`. This is the Jupyter notebook file that contains your homework assignment. Make a copy of that file, called `PDAP2018_Homework-02_YOURLASTNAME.ipynb`, and also place it in the directory `homework/` in the repository.

Now, open this new file in JupyterLab (or the classic Jupyter Notebook, whatever you prefer) and follow the instructions given in that file.

While working on the Notebook, don't forget to *save* the file regularly.