# Code review for Arman

The review was conducted on July 30, 2021, using a bottom-up approach, starting from the file, and moving towards the code.

## The File

To begin, the function’s file name directly follows the PEP8 convention, which was the agreed-on standard for this project. The agreed upon standard was lowercase characters with underscore separation: standard\_deviation.py. The name also perfectly describes what the module is expected to carry and is straight to the point making the file access easy.

## The Code

Text

Description automatically generatedThe file header is short and concise, making it clear exactly what this module will do. When writing comment headers, it is best to write less, and only describe what is needed. The class header is also descriptive, but straight to the point, describing the class variables and attribute variables of the class, refer to Figure 1.

Figure 1: Class Header for standard\_deviation.py

Text

Description automatically generatedThe function headers are all descriptive, without repeating themselves and being overly informative. They clearly describe what the function does and how the passed arguments will be used. The simpler functions, such as getters and setters are described with simple one-line comments while the class specific functions are given more detail, if need be. A good example is seen in Figure 2, with the add\_values function, whose purpose cannot be immediately determined from the function name, so a short description is provided. While in Figure 3, the purpose of the function \_mean can be gathered from its name and context, meaning only a short description is needed.

Figure 2: Function Header for add\_values function in standard\_deviation.py

Text

Description automatically generated

Figure 3: Function Header for \_mean function in standard\_deviation.py

As for the implementation of the function and all its ‘helper’ functions, they follow the PEP8 convention very well. Each line is short, never exceeding 79 characters. All variable names are done using the standard convention of lower-case characters with underscore separation. There is no excessive use of blank spaces, only following the standard for keeping one space distance between equal signs and arithmetic operations. The class functions all include self as the first parameter, which follows the PEP8 convention as well. And finally, for any return values that are not variables or expressions, the None value was used, to avoid unnecessary returns. Figure 4, which shows the \_sample\_standard\_deviation function, provides a perfect example of the standard of coding in this file, displaying the use of white spaces, variable naming and return operations.

Text

Description automatically generated

Figure 4: Coding Sample of \_sample\_standard\_deviation from standard\_deviation.py