In this assignment, I am going to talk about coding standards for Python and my reasoning behind using them. Before I begin, let us talk about what a coding standard is. A coding standard is a set of rules for a specific programming language that recommend the programming style, practices, and methods for each part of the program that is written in that language. I am primarily going to talk about the coding standards for variable names and function documentation. The standard for variable names that I will use is making my variable names lowercase with words separated by underscores which is also known as Snake Case. An example of snake case would be user\_age. My reasoning for using this standard is that it helps improve the readability of the program and makes the code easier to scan and analyze. The standard for function documentation that I will be using is Docstrings. Docstrings is a widely used standard when it comes to documenting code in Python. They allow the programmer to explain the purpose, parameters, and return values of functions. The Docstrings format is a one-line summary line, a blank line proceeding the summary, further elaboration for the docstring, and another blank line. Using an example from my sources for docstrings, it might look something like this:

"""This is the summary line

This is the further elaboration of the docstring. Within this section,

you can elaborate further on details as appropriate for the situation.

Notice that the summary and the elaboration is separated by a blank new

line.

"""

# Notice the blank line above. Code should continue on this line.

The rationale for using this standard is that it helps improve the readability of the code and it helps promotes code understanding since developers can quickly look to see the information regarding functions. A coding style that I will be implementing is the use of indentation. My reasoning for using indentation is that it makes the code easier to read and it identifies the control flow. Another coding convention that I will be using is the use of comments. The use of comments allows the programmer to provide an explanation and background for the code without affecting the way the code is carried out. My reasoning for using this is that helps me understand what I want the code to do while also allowing me to work on my code with others and allow them to see what I want the code to do.

**Cited Resources**

* <https://realpython.com/documenting-python-code/#documenting-your-python-code-base-using-docstrings>
* <https://peps.python.org/pep-0008/>
* <https://en.wikipedia.org/wiki/Naming_convention_(programming)#Python_and_Ruby>
* <https://en.wikipedia.org/wiki/Python_(programming_language)>
* <https://en.wikipedia.org/wiki/Coding_conventions>
* <https://en.wikipedia.org/wiki/Programming_style>