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Coding Standards Paper

PEP 8, the official style guide for Python, is a source of expectations for how developers should name variables to make their code more readable and understandable even between languages. The guide says that variables should follow `snake_case`, meaning all lowercase letters with words separated by underscores. This improves readability, especially in variable names with multiple words like `total_revenue` or `user_profile_id`. PEP 8 also highlights that variable names should be descriptive, unambiguous, and concise, avoiding weird abbreviations or overly long phrases. `Count` is better than just `c`, and `max_connections` is clearer than `mxcn`. The guide talks about constants, which should be written in `ALL_CAPS`, such as `DEFAULT_TIME` or `PI`. This naming pattern signals to other developers that the value is supposed to stay the same. PEP 8 also notes that single letter variables are acceptable only in limited contexts such as loop counters or temporary placeholders.

Function naming follows similar guidelines. According to PEP 8, functions should also use `snake_case`. Besides naming, Python encourages functions to be small and focused, each performing one specific task rather than combining multiple tasks into one complex operation. PEP 8 also outlines formatting expectations: indentation is typically four spaces, blank lines should be used to separate function definitions, and operators should be spaced out between numbers to increase readability.

PEP 257 talks about documentation standards for functions and explains the structure and purpose of docstrings. A docstring should appear immediately below the function definition and start with a one sentence summary of its purpose. If more explanation is needed, it can form a multi-line docstring. The Python Standard Library uses docstrings itself, which make the included functions and modules much easier to understand.

Source Links:

<https://peps.python.org/pep-0008/>

<https://peps.python.org/pep-0257/>