Zen of Python: Principle 12

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In the face of ambiguity, refuse the temptation to guess.

Theoretical Explanation

This principle emphasizes the importance of avoiding assumptions when faced with ambiguous situations in programming. Guessing can lead to hard-to-detect errors and unexpected behavior in the code. Instead, we should seek clarity and precision, ensuring that our decisions and the program's flow are clear and explicit.

In Python, this can translate to ensuring that all decisions are well-justified and that the code is easy to understand and follow. In situations where the data or the program's state is unclear, it is better to take a more cautious and explicit approach rather than making assumptions that might be incorrect.

Example in Python Code

```
bluedef divide(a, b):
         green"""
green
         greenFunctiongreen greentogreen greendividegreen
green
       greentwogreen greennumbers green, green greenagreen
       greenandgreen greenbgreen.
         greenIfgreen greenbgreen greenisgreen greenzerogreen,
green
       green greenreturnsgreen greenNonegreen greeninstead
       green greenofgreen greenguessinggreen greenorgreen
       greenraisinggreen greenangreen greenunhandledgreen
       greenexceptiongreen.
         green"""
green
    blueif b == 0:
```

Explanation of the Example

In this example, the divide function performs a division between two numbers. Before performing the operation, it checks if the divisor (b) is zero. If b is zero, the function does not attempt to guess the result or raise an unhandled exception. Instead, it prints an error message and returns None. This way, ambiguity is avoided, and a clear and manageable behavior is provided for a situation that could cause an error.