



Docstrings

Docstring, or documentation strings, are valuable pieces of documentation that explain the functionality of any function or module in your code. Ideally, each of your functions should always have a docstring.

Docstrings are surrounded by triple quotes. The first line of the docstring is a brief explanation of the function's purpose.

One line docstring

```
def population_density(population, land_area):
 """Calculate the population density of an area."""
 return population / land_area
```

If you think that the function is complicated enough to warrant a longer description, you can add a more thorough paragraph after the one line summary.

Multi line docstring

```
def population_density(population, land_area):
 """Calculate the population density of an area.
Args:
population: int. The population of the area
land_area: int or float. This function is unit-agnostic, if you pass in values
 Returns:
population_density: population/land_area. The population density of a
particular area.
 return population / land_area
```

The next element of a docstring is an explanation of the function's arguments. Here you list the arguments, state their purpose, and state what types the arguments should be. Finally it is common to provide some description of the output of the function. Every piece of the docstring is optional; however, doc strings are a part of good coding practice.

Resources:

- PEP 257 Docstring Conventions
- NumPy Docstring Guide

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