Python for Data Mining Part 1

Python as a Programming Language

- Python is a high level general purpose programming language with many dominant areas including data analysis, data mining and artificial intelligence.
- Python Enhancement Proposal 8 (PEP 8) provides a guidance on how to write Python code to enhance readability and maintain consistency across projects.

File Operations

```
with open(file_path, mode) as file_variable:
    # Code block to work with the file
    # Perform file operations using the file_variable
```

Common modules and their usage

- NumPy: Provides an n-dimensional array (ndarray) data structure and a wide range of mathematical operations for numerical computations.
- matplotlib.pyplot: Offers high-quality data visualization capabilities for creating various types of plots and customizing their appearance.
- pandas: Introduces Series and DataFrame data structures, which facilitate data manipulation operations and provide methods for data analysis and visualization.