Python Language Overview

> Prerequisites:
>
> - The `python` Utility
> - The `pip` Utility

Official Python Resources

See also these official reference materials:

- Python 3 Documentation
- Python 3 Tutorial
- Python 3 Built-in Functions
- Python 3 Built-in Constants
- PEP 8 Style Guide

Professor Rossetti's Python Language Reference

A curated, high-level overview of the Python programming language:

- Syntax and Style
- Comments
- Printing and Logging
- Debugging
- Datatypes:
    - Null Values
    - Booleans
    - Strings
    - Numbers
    - Dates and Times
    - Lists and Sets
    - Dictionaries
    - Custom Classes
- Variables
- Functions
- Control Flow
- Errors
- File Management

Built-in Python Modules

General Support:

- The `pprint` Module
- The `os` Module

Dates and Times:

- The `datetime` Module
- The `time` Module

Data Processing:

- The `collections` Module
- The `itertools` Module
- The `csv` Module
- The `json` Module

Math and Statistics:

- The `math` Module
- The `random` Module
- The `statistics` Module

Third-party Python Packages

General Support:

- The `dotenv` Package
- The `pytest` Package

User Interfaces:

- The `PySimpleGUI` Package
- The `tkinter` Package
- The `flask` Package
- The `speech_recognition` Package

Data Processing:

- The `pandas` Package
- The `gspread` Package
- The `psycopg` Package
- The `pymysql` Package

Data Visualization:

- The `plotly` Package
- The `matplotlib` Package
- The `altair` Package

Math and Statistics:

- The `nltk` Package
- The `scikitlearn` Package - for machine learning
- The `keras` Package

Internet Connectivity (HTTP Requests and Web Scraping):

- The `requests` Package
- The `BeautifulSoup` Package
- The `selenium` Package

Sending Messages:

- The `sendgrid` Package
- The `twilio` Package
- The `tweepy` Package

Other Services:

- The `spotipy` Package