# Python Programming

## Overview

This folder contains Python basics, such as syntax, loops, functions, and data structures. It serves as the foundation for Python programming, which is essential for understanding more advanced topics like data science, machine learning, and automation.

## Content

- \*\*basics.py\*\*: Introduces Python syntax, variables, data types, and simple operations.

- \*\*loops.py\*\*: Examples of different loops (for, while) and how they are used.

- \*\*functions.py\*\*: Demonstrates how to define and use functions in Python.

- \*\*data\_structures.py\*\*: Covers lists, dictionaries, sets, and tuples in Python.

## Purpose

This folder helps in mastering the basics of Python programming. It is crucial for building a solid foundation to understand more complex coding problems and libraries used in data science.

## References

- [Python Documentation](https://docs.python.org/3/)

- [W3Schools Python Tutorial](https://www.w3schools.com/python/)

- \*\*Book\*\*: Python Crash Course by Eric Matthes

## Usage

Run each `.py` file to practice specific concepts. You can execute the code in the terminal or use an IDE like PyCharm or Jupyter Notebook for experimentation.