

# Python Tutorial

## Python Tutorial

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Welcome to Python Tutorial by TutorialKart!

This series of Python Tutorials help you get started with the basics of Python programming.

Also, we will look into most used Python Libraries with thorough examples.

**Prerequisites** – There is nothing you need to know in prior. If you are interested in learning Python programming from scratch, we have a well built and organised set of tutorials to help you master Python.

## Quick Introduction to Python

Basically, Python is an interactive, interpreted, high level and object oriented programming language.

## Python Tutorial Index

## Get Started

The following tutorials help us to install Python in our computer.

- [Install Python](#)
- [Install Anaconda Python](#)

## Python Basic Concepts

The following tutorials cover basics of any programming language like variables, datatypes, comments, conditional statements, looping statements, functions, etc.

- Basics
  1. [Python Variables](#)
  2. [Python Variable Data Type Conversion](#)
  3. [Python Comments](#)
- Conditional Statements

1. [Python If](#)
  2. [Python If Else](#)
  3. [Python Elif](#) (short for Else If)
- **Looping Statements**
    1. [Python While Loop](#)
      - [Infinite While Loop in Python](#)
      - [Nested While Loop in Python](#)
      - [While Loop with Break in Python](#)
      - [While Loop with Continue in Python](#)
    2. [Python For Loop](#)
      - [For Loop with Index in Python](#)
      - [For Loop with Range in Python](#)
      - [For Loop with Loop Increment in Python](#)
    3. [Python Break Loop](#)
    4. [Python Continue Loop](#)
  - **Functions**
    1. [Python Functions](#)
    2. [Python Builtin Functions](#)

## [Python Sequences](#)

Python Sequences are objects whose elements are ordered and could be accessed using index. The following tutorials cover different sequences in Python programming language.

- **Tuples**
  - [Python Tuple – Initialize and Access](#)
  - [Get Length of Tuple in Python](#)
- **Lists**
  - [Python Lists](#)
  - [Python List Methods](#)
  - [Python List – Length](#)
  - [Python List – Iterate over items](#)
    - [Iterate over List using While Loop in Python](#)
    - [Iterate over List using For Loop in Python](#)
  - [Python List – Sorting](#)
  - [Python List – Reverse](#)
  - [Python List – Pop](#)
  - [Python List – Remove specific item from List](#)
  - [Convert Tuple into List in Python](#)
- **Strings**
  - [Python String Methods](#)
  - [Python String Length](#)
  - [Python String – Replace Substring](#)
  - [Python Split String](#)
  - [Sort List of Strings in Python](#)
- **Bytes**

- [Get Length of Bytes in Python](#)
- Ranges
  - [range\(\) builtin function in Python](#)
  - [Python Range with Floating Point Numbers](#)
  - [Python Range in Reverse or Negative Steps](#)
  - [Get Length of Python Range](#)
  - [Convert Range to List in Python](#)
  - [Check if Number is in Range or not in Python](#)

## Python Collections

Python Collections are objects whose elements are not ordered and could be accessed using an iterator. The following tutorials cover different collections in Python programming language.

- Dictionary
  - [Python Dictionary](#)
  - [Python Dictionary Methods](#)
  - [Length of Python Dictionary](#)
- Set
  - [Get Length of Python Set](#)
- Frozen Set
  - [Get Length of Frozen Set in Python](#)

## Python File Operations

The following tutorials cover basic CRUD file operations: Create, Read, Update and Delete.

- [Read File as String in Python](#)
- [Write String to Text File in Python](#)
- [Delete File in Python](#)

## Other Concepts in Python

- [Python Multithreading](#)
- [Python XML Parsing](#)

## Python JSON

- [Python JSON Tutorial](#)

## Python DateTime

- [Python DateTime Format](#)

## Python Pandas

- [Pandas Tutorial](#)

## Python – MongoDB

- [Connect to MongoDB from Python](#)

## Python – Spark

- [Apache Spark Application in Python](#)
- [Python Spark Shell](#)

## Python – OpenCV

- [Python OpenCV Tutorial](#)

## Python Programs

- [Check Leap Year in Python](#)
- [Pattern Programs using While Loop in Python](#)

## Interview Questions

- [Python Interview Questions](#)

## Conclusion

In this **Python Tutorial**, we have learned the basics of Python programming, some of the most used builtin functions, python modules, how to work with file system, string operations, and many advanced concepts.

### **Python Programming**

#### ⇒ **Python Tutorial**

- ◆ [Install Python](#)
- ◆ [Install Anaconda Python](#)
- ◆ [Python HelloWorld Program](#)
- ◆ [Python Variables](#)
- ◆ [Python Datatype Conversion](#)
- ◆ [Python Comments](#)

▶ [Python If](#)

- ◆ [Python II](#)
- ◆ [Python If Else](#)
- ◆ [Python While Loop](#)
- ◆ [Python For Loop](#)
- ◆ [Python Operators](#)
- ◆ [Python Functions](#)
- ◆ [Python Lambda Functions](#)
- ◆ [Python Builtin Functions](#)

## Python Collections

- ◆ [Python Strings](#)
- ◆ [Python Lists](#)
- ◆ [Python Tuples](#)
- ◆ [Python Dictionary](#)
- ◆ [Python Sets](#)

## Libraries

- ◆ [Python Numpy Tutorial](#)
- ◆ [Python SciPy Tutorial](#)
- ◆ [Python Pandas Tutorial](#)
- ◆ [Python Matplotlib Tutorial](#)

## Advanced Topics

- ◆ [Python Multithreading](#)

## Useful Resources

- ◆ [Python Interview Questions](#)