

# Learn Python Programming

This site contains materials and exercises for the Python 3 programming language.

In this course you will learn how to write code, the basics and see examples.

Python is a programming language supports several programming paradigms including Object-Oriented Programming (OOP) and functional programming.

**Related course:** [Complete Python Programming Course & Exercises](#)

## Table of Contents:

Overview of articles and exercises:

### Introduction

- [7 reasons to learn Python](#)
- [Why Python is Awesome](#)

### Learn Python

- [Getting started](#)
- [Execute Python scripts](#)
- [Variables](#)
- [Strings](#)
- [Replace](#)
- [Join](#)
- [String find](#)
- [Split](#)
- [Random numbers](#)
- [Keyboard input](#)

### Control structures

- [If statements](#)
- [For Loops](#)
- [While loop](#)

### Data and operations

- [Functions](#)
- [List](#)
- [List operations](#)
- [Sort list](#)
- [Range function](#)
- [Dictionary](#)
- [Read file](#)
- [Write file](#)
- [Nested loops](#)
- [Slices](#)
- [Multiple return](#)
- [Scope](#)
- [time and date](#)
- [Try exception](#)
- [How to use pip and pypi](#)

### OOP

- [Class](#)
- [Constructor](#)
- [Getter and setter](#)
- [Modules](#)
- [Inheritance](#)
- [Static method](#)
- [Iterable](#)
- [Class method](#)
- [Multiple Inheritance](#)

### Advanced

- [Virtualenv](#)
- [Enumerate](#)
- [Pickle](#)
- [Regular Expressions](#)
- [JSON](#)
- [Read JSON file](#)
- [Decorators](#)
- [Web server](#)

### Audio

- [Play Sound](#)
- [Text to speech](#)
- [Convert MP3 to WAV](#)
- [Transcribe audio](#)

### Tkinter

- [Tkinter](#)
- [Tkinter button](#)
- [Tkinter menu](#)
- [Tkinter label](#)
- [Tkinter image](#)
- [Tkinter canvas](#)
- [tkinter checkbox](#)
- [tkinter entry](#)
- [tkinter filedialog](#)
- [tkinter frame](#)
- [tkinter listbox](#)
- [tkinter messagebox](#)
- [tkinter radiobutton](#)
- [tkinter scale](#)

### Plotting

- [Matplotlib Bar Chart](#)
- [Matplotlib Line Chart](#)
- [Seaborn Distplot](#)
- [Seaborn barplot](#)
- [Seaborn boxplot](#)
- [Seaborn heatmap](#)
- [Seaborn line plot](#)
- [Seaborn pairplot](#)
- [Seaborn palette](#)
- [Seaborn pandas](#)
- [Seaborn scatterplot](#)
- [Plotly](#)

### PyQt

- [PyQt](#)
- [Install pyqt](#)
- [PyQt Hello World](#)
- [PyQt Buttons](#)
- [PyQt QMessageBox](#)
- [PyQt grid](#)
- [QLineEdit](#)
- [PyQt QPixmap](#)
- [PyQt Combobox](#)
- [QCheckBox](#)
- [QSlider](#)
- [Progressbar](#)
- [PyQt table](#)
- [QVBoxLayout](#)
- [PyQt style](#)
- [Compile PyQt to exe](#)
- [QDial](#)
- [Qcheckbox](#)
- [Pyqt-radiobutton](#)
- [Pyqt-groupbox](#)
- [Pyqt-tooltip](#)
- [PyQt toolbox](#)
- [PyQt toolbar](#)
- [PyQt menubar](#)
- [PyQt tabwidget](#)
- [PyQt auto complete](#)
- [PyQt list box](#)
- [PyQt input dialog](#)
- [Qt designer python](#)

### Machine Learning

- [Data Science](#)
- [How to seriously start with Machine Learning and AI](#)
- [Why Python for Machine Learning?](#)
- [Machine Learning Libraries](#)
- [What is Machine Learning?](#)
- [Difference Machine Learning, Deep Learning and AI?](#)
- [Machine Learning Algorithms](#)
- [Machine Learning Comparison](#)
- [Why use Scikit-Learn?](#)
- [How to load Machine Learning Data in Python](#)
- [Machine Learning Classifier](#)
- [Machine Learning Regression](#)
- [Polynomial Regression in Python](#)
- [Decision Tree](#)
- [k-Nearest Neighbors](#)
- [Split Train Test](#)
- [Face Detection](#)
- [How to prepare your Data for Machine Learning with Scikit Learn](#)

### Selenium

- [Selenium browsers](#)
- [Selenium cookies](#)
- [Selenium execute javascript](#)
- [Selenium find element](#)
- [Selenium firefox headless](#)
- [Selenium firefox](#)
- [Selenium get html](#)
- [Selenium keyboard](#)
- [Selenium maximize](#)
- [Selenium screenshot](#)
- [Selenium scroll down](#)
- [Selenium switch to window](#)
- [Selenium wait for page to load](#)

### Flask Tutorial

- [What is Flask](#)
- [Flask Tutorial - Hello World](#)
- [Flask Tutorial - Templates](#)
- [Flask Tutorial - Routes](#)
- [Python to Web](#)
- [Flask HTTP methods](#)
- [Flask Static Files](#)
- [Flask Template Data](#)
- [Flask cookies](#)
- [Flask sessions](#)
- [Flask redirect and errors](#)
- [Flask upload file](#)
- [Flask extensions](#)
- [Flask mail](#)
- [Flask SQLite](#)
- [Flask SQLAlchemy](#)
- [Flask Sijax](#)
- [Deploy Flask App](#)
- [Flask REST API](#)
- [Flask MongoDB](#)
- [Flask Login](#)
- [Flask boilerplate](#)

### Pandas

- [What is Pandas](#)
- [Pandas series](#)
- [Pandas Dataframe](#)
- [Read csv with pandas](#)
- [Read Excel](#)
- [Write Excel](#)
- [Pandas Web Scraping](#)
- [Pandas JSON](#)
- [Pandas iterate dataframe](#)

### About

This is a collection of tutorials for the Python programming language. It covers many topics ranging from beginner level to professional level. I write about many things including web development, machine learning, web automation and various other topics.

However, if you want to **learn Python** or are new to the world of programming, it can be quite tough getting started.

There are so many things to learn: coding, object oriented programming, building desktop apps, creating web apps with Flask or Django, learning how to plot and even how to use Machine Learning or Artificial Intelligence. You may have many questions or perhaps you don't know where to start, the book below helps you master Python in no time.

**Related course:** [Complete Python Programming Course & Exercises](#)

It helps you get started with Python, and makes learning Python a breathe. On top of that, many exercises and a video course is included with the book, making learning great fun.