

# Video Training Python

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## Installation & Getting Started

- [Get Started Tutorial for Python in Visual Studio Code](#)
- [Python in Visual Studio Code](#)
- [Hello World](#)
- [How to: Install Jupyter Notebook on an Android device](#)
- [Learn How to Copy Code from Social Media Images Like a Pro](#)

## Python Exercises

### Python Introduction

#### Print() Function

- [Python print\(\) function](#)
- [How to print multiple lines](#)
- [100 times "hello world" without loop](#)

#### Comments

- [A Comprehensive Guide to Single Line & Multi-Line Comments](#)

#### Indentation

### Python Quiz - Basics

### Variables and Assignments

- [Variables in Python](#)
- [Python Variables and Assignment](#)
- [Asterisk \(\\*\) in Variable Assignment \(New\)](#)
- [Local vs Global Variables in Python](#)
- Python Challenge to test your knowledge [Quiz #1](#)

## Python Quiz - Variables

### Operators

- [Calculating The Exponential Value](#)
- [Understand the OR operator](#)
- [Why You Should Avoid Using the 'not...is' Operator | Python Best Practices](#)
- [Why does -22 // 10 return -3?](#)

## Python Quiz -Operators

### Scalar Types

#### str

- [Find Occurrences in Strings Effortlessly with Python's Count Method](#)
- [How to Replace the Second Occurrence of a Character in a String](#)
- [String swapcase\(\) Method](#)

## Python Quiz -String

#### int

- [How to use int variable](#)
- [int variable](#)
- [How to Convert a Python String to int](#)
- [How to Convert a Python integer to string](#)
- [Convert integer to octal and hexadecimal](#)

#### float

- [float variable](#)

#### bool

- [Exploring Boolean Values and Type Checking with isinstance\(\) and bool\(\) functions](#)

## Python Quiz - Scalar Types

### Control Flow Statements

#### if Statement

- [How to check if a number is odd or even](#)
- [Python Program to Find Grade of a Student Using if elif else](#)
- [Use Walrus Operator with if-else \(New\)](#)
- [How to Write Single-Line Code Instead of If-Else Statements \(New\)](#)

## Python Quiz -IF

#### for Statement

- [For loops in Python](#)
- [Underscore to Ignore Values in for loop \(New\)](#)

## while Statement

- [Learn how to use while loops](#)
- [Learn how to use INFINITE while loop](#)
- [Python while loop](#)

## The Range() function

- [The range\(\) Function](#)
- [Use of range\(\) in for loop](#)

## The break and continue Statement

- [How to Effectively Use Break and Continue Statements](#)
- [Using Python break statement with a while loop](#)

## The else Clauses on Loops

## pass Statement

## match Statement

- Python Challenge to test your knowledge [Quiz1](#) | [Quiz2](#) | [Quiz3](#) | [Quiz4](#) | [Quiz5](#)

# Data Structures and Sequences

## Lecture Notes

## Tuple

- [#1 Tuple Assignment](#)
- [#2 Tuple Assignment -How to create a tuple in Python](#)
- [Learn how to print elements of a tuple](#)
- [How to Calculate the Sum of a Tuple Using a For Loop](#)
- [How to create an Empty tuple and Single value tuple](#)
- [How to: Access Tuple Items in Python](#)

## List

- [How to use list](#)
- [Python List Slicing](#)
- [Python Nested List](#)
- [How to modify a list by replacing multiple elements with a single element](#)
- [Adding and Removing Elements from a Python List](#)
- [Check if Data Structure is Empty Using 'not' Operator](#)
- [Remove duplicate elements from a list](#)
- [List Index Function: Find the Index of an Element in a List](#)

- [List pop\(\) Method](#)

## Built-in Sequence Functions

- [#1 Python zip\(\) Function](#)
- [#2 Python Zip Function: Handling Lists with Different Numbers of Elements](#)
- [Python Iterators and Iterables: How to Loop Over Lists and Iterators](#)
- [How to Iterate Over Tuples with the Enumerate Function](#)
- [Finding the maximum value in a list using a one-liner](#)
- [Find the sum of all even numbers between 1 and 100 using a one-liner](#)
- [Counting the number of occurrences of an element in a list](#)

## dict

- [Use of dict](#)
- [How to Print a Dictionary](#)
- [Python Dictionary with For Loop](#)
- [How to Merge Dictionaries with the | Operator](#)
- [dictionary copy\(\) method](#)

## set

- [How to: Add or Remove Elements in a Set](#)
- [How to: Create Empty Set in Python](#)
- [Find the Union of Two Sets in Python](#)

## List, Set and Dict Comprehensions

- [List Comprehension with Easy-to-Understand Code Example](#)
- [List Comprehension: Create a list of squares of all even numbers](#)
- [List Comprehension: How to Convert List Elements to Upper Case](#)
- [List Comprehension: How to: Use list comprehension for DATA CLEANING -List Comprehension: Real-Life Use Case for List Comprehension](#)
- [Python Challenge to test your knowledge Quiz1 Quiz2 Quiz3](#)

## Python Sorting

- [List sort\(\) Function](#)
- [sorted\(\) Function](#)
- [Sorting a List of Colors by Length using Python's sorted\(\) Function](#)
- [How to Sort a List of Fruit Tuples](#)
- [Sorting a List of Dictionaries by Age using Lambda Function](#)

## Functions

- [How to Add Two Numbers and Print the Result](#)
- [How to Find the Maximum Value in a List of Numbers](#)

- [How to Write a Python Function to Find the Length of a Word](#)
- [Learn How to Use Default Parameters in Function Definition](#)
- [Understanding \\*args in Functions - How to Add Any Number of Arguments with \\*args](#)
- [How to Use \\*args in Python Functions](#)
- [How to use \\*\\*kwargs in Python](#)

## Python Quiz - Functions

### Anonymous (Lambda) Functions

#### Lecture Notes

- [#1 How to: Use of Lambda function](#)
- [#2 How to: Use of Lambda function](#)
- [How to: use a LAMBDA function as an argument in filter\(\) and map\(\)](#)

### Generators

- [How to Use Yield to Generate Values](#)
- [Learn to Generate the Fibonacci Sequence in Python using Generators](#)

## Python Performance

- [List vs Tuple Memory Usage Comparison using sys module](#)
- [Performance Comparison of For Loop vs List Comprehension](#)

## Modules

### calendar

- [Print the calendar for a specific month](#)

### pandas

- [How to Create a Data Frame with Fruits and Colors Example](#)

## Classes

- [Python Classes: Creating a Class in Python](#)
- [Python Classes: Class and Instance Attribute Example](#)

## Error and Exception Handling

- [Python Exception Handling run-time error : division by zero](#)

## File Handling

### Read CSV and XML Files

## Python Regular Expressions

# Python Utilities

## Testing

## Modules

## Data Analysis

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