Video Training Python

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- Python Playlist on Youtube

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

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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