

Python Course Content

An Introduction to Python

- Introduction
- Python Versions
- Installing Python
- Environment Variables
- Executing Python from the Command Line
- IDLE
- Editing Python Files
- Dynamic Types
- Python Reserved Words

Basic Python Syntax

- Basic Syntax
- Comments
- String Values
- String Methods
- The format Method
- String Operators
- Numeric Data Types
- Conversion Functions
- Simple Input
- The % Method
- The print Function

Language Components

- Indenting Requirements
- The if Statement
- Relational , Logical Operators, Bit Wise, membership, assigning Operators
- The while Loop
- break and continue pass
- The for Loop

Collections

- Introduction
- Lists
- Tuples
- Sets
- Dictionaries

Functions

- Introduction
- Defining Your Own Functions
- Parameters
- Function Documentation

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- Keyword and Optional Parameters
- Passing Collections to a Function
- Variable Number of Argument
- Scope
- Passing Functions to a Function
- Arrays in python
- Map
- Filter
- Lambda
- Inner Functions
- Lambda functions

Modules

- Modules
- Standard Modules - math
- Standard Modules - time
- The dir Function

Exceptions

- Errors
- Runtime Errors
- The Exception Model
- Handling Multiple Exceptions
- Raise

Input and Output

- Introduction
- Data Streams
- Access Modes
- Writing Data to a File

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- Reading Data From a File
- Additional File Methods
- Handling IOExceptions

Classes in Python

- Classes in Python
- Principles of Object Orientation
- Creating Classes
- Instance Methods
- Special Methods
- Class Variables
- Inheritance
- Polymorphism

Regular Expressions

- Introduction
- Simple Character Matches
- Special Characters
- Quantifiers
- The Dot Character
- Grouping
- Matching at Beginning or End
- Match Objects
- Substituting
- Splitting a String