



Python Examples

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Python Variables

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Python Numbers

[Verify the type of an object](#)[Create integers](#)[Create floating point numbers](#)



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Create complex numbers

Numbers Explained

Python Casting

Casting - Integers

Casting - Floats

Casting - Strings

Casting Explained

Python Strings

Get the character at position 1 of a string

Substring. Get the characters from position 2 to position 5 (not included)

Remove whitespace from the beginning or at the end of a string

Return the length of a string

Convert a string to lower case

Convert a string to upper case

Replace a string with another string

Split a string into substrings

Strings Explained

Python Operators

Addition operator

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Python Lists

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Python Tuples

[Create a tuple](#)



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Change tuple values

Loop through a tuple

Check if a tuple item exists

Get the length of a tuple

Delete a tuple

Using the tuple() constructor to create a tuple

Tuples Explained

Python Sets

Create a set

Loop through a set

Check if an item exists

Add an item to a set

Add multiple items to a set

Get the length of a set

Remove an item in a set

Remove an item in a set by using the discard() method

Remove the last item in a set by using the pop() method

Empty a set

Delete a set

Using the set() constructor to create a set

Sets Explained

Python Dictionaries



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Access the items of a dictionary

Change the value of a specific item in a dictionary

Print all key names in a dictionary, one by one

Print all values in a dictionary, one by one

Using the values() function to return values of a dictionary

Loop through both keys and values, by using the items() function

Check if a key exists

Get the length of a dictionary

Add an item to a dictionary

Remove an item from a dictionary

Empty a dictionary

Using the dict() constructor to create a dictionary

Dictionaries Explained

Python If ... Else

The if statement

The elif statement

The else statement

Short hand if

Short hand if ... else

The and keyword

The or keyword

If ... Else Explained

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The while loop

Using the break statement in a while loop

Using the continue statement in a while loop

While Loop Explained

Python For Loop

The for loop

Loop through a string

Using the break statement in a for loop

Using the continue statement in a for loop

Using the range() function in a for loop

Else in for loop

Nested for loop

For Loop Explained

Python Functions

Create and call a function

Function parameters

Default parameter value

Let a function return a value

Recursion

Functions Explained



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A lambda function that adds 10 to the number passed in as an argument

A lambda function that multiplies argument a with argument b

A lambda function that sums argument a, b, and c

Lambda Explained

Python Arrays

Create an array

Access the elements of an array

Change the value of an array element

Get the length of an array

Loop through all elements of an array

Add an element to an array

Remove an element from an array

Arrays Explained

Python Classes and Objects

Create a class

Create an object

The `__init__()` Function

Create object methods

The self parameter

Modify object properties

Delete object properties



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Classes/Objects Explained

Python Iterators

Return an iterator from a tuple

Return an iterator from a string

Loop through an iterator

Create an iterator

Stop iteration

Iterators Explained

Python Modules

Use a module

Variables in module

Re-naming a module

Built-in modules

Using the dir() function

Import from module

Modules Explained

Python Dates

Import the datetime module and display the current date

Return the year and name of weekday

Create a date object



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Dates Explained

Python JSON

Convert from JSON to Python

Convert from Python to JSON

Convert Python objects into JSON strings

Convert a Python object containing all the legal data types

Use the indent parameter to define the numbers of indents

Use the separators parameter to change the default separator

Use the sort_keys parameter to specify if the result should be sorted or not

JSON Explained

Python RegEx

Search a string to see if it starts with "The" and ends with "Spain"

Using the findall() function

Using the search() function

Using the split() function

Using the sub() function

RegEx Explained

Python PIP

Using a package



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Python Try Except

When an error occurs, print a message

Many exceptions

Use the else keyword to define a block of code to be executed if no errors were raised

Use the finally block to execute code regardless if the try block raises an error or not

Try Except Explained

Python Files

Read a file

Read only parts of a file

Read one line of a file

Loop through the lines of a file to read the whole file, line by line

Files Explained

Python MySQL

Create a connection to a database

Create a database in MySQL

Check if a database exist

Create a table

Check if a table exist

Create primary key when creating a table



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Insert multiple rows

Get inserted ID

Select all records from a table

Select only some of the columns in a table

Use the fetchone() method to fetch only one row in a table

Select with a filter

Wildcards characters

Prevent SQL injection

Sort the result of a table alphabetically

Sort the result in a descending order (reverse alphabetically)

Delete records from an existing table

Prevent SQL injection

Delete an existing table

Delete a table if it exist

Update existing records in a table

Prevent SQL injection

Limit the number of records returned from a query

Combine rows from two or more tables, based on a related column between them

LEFT JOIN

RIGHT JOIN

MySQL Explained

Python MongoDB

Create a database



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Create a collection

Check if a collection exist

Insert into collection

Return the id field

Insert multiple documents

Insert multiple documents with specified IDs

Find the first document in the selection

Find all documents in the selection

Find only some fields

Filter the result

Advanced query

Filter with regular expressions

Sort the result alphabetically

Sort the result descending (reverse alphabetically)

Delete document

Delete many documents

Delete all documents in a collection

Delete a collection

Update a document

Update many/all documents

Limit the result

MongoDB Explained



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