**Python modules**

\_\_future\_\_ Future statement definitions

\_\_main\_\_ The environment where the top-level script is run.

\_dummy\_thread Drop-in replacement for the \_thread module.

\_thread Low-level threading API.

a

abc Abstract base classes according to PEP 3119.

aifc Read and write audio files in AIFF or AIFC format.

\*argparse Command-line option and argument parsing library.

array Space efficient arrays of uniformly typed numeric values.

ast Abstract Syntax Tree classes and manipulation.

asynchat Support for asynchronous command/response protocols.

asyncio Asynchronous I/O, event loop, coroutines and tasks.

asyncore A base class for developing asynchronous socket handling services.

atexit Register and execute cleanup functions.

audioop Manipulate raw audio data.

b

base64 RFC 3548: Base16, Base32, Base64 Data Encodings; Base85 and Ascii85

\*bdb Debugger framework.

binascii Tools for converting between binary and various ASCII-encoded binary representations.

binhex Encode and decode files in binhex4 format.

bisect Array bisection algorithms for binary searching.

\*builtins The module that provides the built-in namespace.

\*bz2 Interfaces for bzip2 compression and decompression.

c

\*calendar Functions for working with calendars, including some emulation of the Unix cal program.

\*cgi Helpers for running Python scripts via the Common Gateway Interface.

cgitb Configurable traceback handler for CGI scripts.

chunk Module to read IFF chunks.

cmath Mathematical functions for complex numbers.

\*cmd Build line-oriented command interpreters.

code Facilities to implement read-eval-print loops.

codecs Encode and decode data and streams.

codeop Compile (possibly incomplete) Python code.

- collections Container datatypes

colorsys Conversion functions between RGB and other color systems.

compileall Tools for byte-compiling all Python source files in a directory tree.

- concurrent

configparser Configuration file parser.

contextlib Utilities for with-statement contexts.

\*copy Shallow and deep copy operations.

copyreg Register pickle support functions.

cProfile

\*crypt (Unix) The crypt() function used to check Unix passwords.

\*csv Write and read tabular data to and from delimited files.

\*ctypes A foreign function library for Python.

- curses (Unix) An interface to the curses library, providing portable terminal handling.

d

\*datetime Basic date and time types.

- dbm Interfaces to various Unix "database" formats.

decimal Implementation of the General Decimal Arithmetic Specification.

difflib Helpers for computing differences between objects.

dis Disassembler for Python bytecode.

- distutils Support for building and installing Python modules into an existing Python installation.

doctest Test pieces of code within docstrings.

dummy\_threading Drop-in replacement for the threading module.

e

-\*email Package supporting the parsing, manipulating, and generating email messages, including MIME documents.

-encodings

ensurepip Bootstrapping the "pip" installer into an existing Python installation or virtual environment.

\*enum Implementation of an enumeration class.

\*errno Standard errno system symbols.

f

faulthandler Dump the Python traceback.

fcntl (Unix) The fcntl() and ioctl() system calls.

filecmp Compare files efficiently.

fileinput Loop over standard input or a list of files.

fnmatch Unix shell style filename pattern matching.

formatter Deprecated: Generic output formatter and device interface.

fpectl (Unix) Provide control for floating point exception handling.

fractions Rational numbers.

ftplib FTP protocol client (requires sockets).

functools Higher-order functions and operations on callable objects.

g

gc Interface to the cycle-detecting garbage collector.

getopt Portable parser for command line options; support both short and long option names.

getpass Portable reading of passwords and retrieval of the userid.

gettext Multilingual internationalization services.

glob Unix shell style pathname pattern expansion.

grp (Unix) The group database (getgrnam() and friends).

\*gzip Interfaces for gzip compression and decompression using file objects.

h

hashlib Secure hash and message digest algorithms.

heapq Heap queue algorithm (a.k.a. priority queue).

hmac Keyed-Hashing for Message Authentication (HMAC) implementation

- html Helpers for manipulating HTML.

- http HTTP status codes and messages

i

imaplib IMAP4 protocol client (requires sockets).

imghdr Determine the type of image contained in a file or byte stream.

imp Deprecated: Access the implementation of the import statement.

- importlib The implementation of the import machinery.

inspect Extract information and source code from live objects.

io Core tools for working with streams.

\*ipaddress IPv4/IPv6 manipulation library.

\*itertools Functions creating iterators for efficient looping.

j

-\* json Encode and decode the JSON format.

k

\*keyword Test whether a string is a keyword in Python.

l

lib2to3 the 2to3 library

linecache This module provides random access to individual lines from text files.

locale Internationalization services.

- logging Flexible event logging system for applications.

lzma A Python wrapper for the liblzma compression library.

m

macpath Mac OS 9 path manipulation functions.

mailbox Manipulate mailboxes in various formats

mailcap Mailcap file handling.

marshal Convert Python objects to streams of bytes and back (with different constraints).

\*math Mathematical functions (sin() etc.).

mimetypes Mapping of filename extensions to MIME types.

mmap Interface to memory-mapped files for Unix and Windows.

modulefinder Find modules used by a script.

msilib (Windows) Creation of Microsoft Installer files, and CAB files.

msvcrt (Windows) Miscellaneous useful routines from the MS VC++ runtime.

- multiprocessing Process-based parallelism.

n

netrc Loading of .netrc files.

nis (Unix) Interface to Sun's NIS (Yellow Pages) library.

nntplib NNTP protocol client (requires sockets).

numbers Numeric abstract base classes (Complex, Real, Integral, etc.).

o

operator Functions corresponding to the standard operators.

optparse Deprecated: Command-line option parsing library.

- os Miscellaneous operating system interfaces.

ossaudiodev (Linux, FreeBSD) Access to OSS-compatible audio devices.

p

\*parser Access parse trees for Python source code.

pathlib Object-oriented filesystem paths

pdb The Python debugger for interactive interpreters.

\*pickle Convert Python objects to streams of bytes and back.

pickletools Contains extensive comments about the pickle protocols and pickle-machine opcodes, as well as some useful functions.

\*pipes (Unix) A Python interface to Unix shell pipelines.

pkgutil Utilities for the import system.

platform Retrieves as much platform identifying data as possible.

plistlib Generate and parse Mac OS X plist files.

poplib POP3 protocol client (requires sockets).

posix (Unix) The most common POSIX system calls (normally used via module os).

pprint Data pretty printer.

profile Python source profiler.

pstats Statistics object for use with the profiler.

pty (Linux) Pseudo-Terminal Handling for Linux.

\*pwd (Unix) The password database (getpwnam() and friends).

py\_compile Generate byte-code files from Python source files.

pyclbr Supports information extraction for a Python class browser.

pydoc Documentation generator and online help system.

q

\*queue A synchronized queue class.

quopri Encode and decode files using the MIME quoted-printable encoding.

r

\*random Generate pseudo-random numbers with various common distributions.

\*re Regular expression operations.

\*readline (Unix) GNU readline support for Python.

reprlib Alternate repr() implementation with size limits.

resource (Unix) An interface to provide resource usage information on the current process.

rlcompleter Python identifier completion, suitable for the GNU readline library.

runpy Locate and run Python modules without importing them first.

s

sched General purpose event scheduler.

select Wait for I/O completion on multiple streams.

selectors High-level I/O multiplexing.

shelve Python object persistence.

shlex Simple lexical analysis for Unix shell-like languages.

\*shutil High-level file operations, including copying.

signal Set handlers for asynchronous events.

site Module responsible for site-specific configuration.

smtpd A SMTP server implementation in Python.

smtplib SMTP protocol client (requires sockets).

sndhdr Determine type of a sound file.

\*socket Low-level networking interface.

\*socketserver A framework for network servers.

\*spwd (Unix) The shadow password database (getspnam() and friends).

\*sqlite3 A DB-API 2.0 implementation using SQLite 3.x.

ssl TLS/SSL wrapper for socket objects

stat Utilities for interpreting the results of os.stat(), os.lstat() and os.fstat().

statistics mathematical statistics functions

string Common string operations.

stringprep String preparation, as per RFC 3453

struct Interpret bytes as packed binary data.

subprocess Subprocess management.

sunau Provide an interface to the Sun AU sound format.

symbol Constants representing internal nodes of the parse tree.

symtable Interface to the compiler's internal symbol tables.

sys Access system-specific parameters and functions.

sysconfig Python's configuration information

syslog (Unix) An interface to the Unix syslog library routines.

t

tabnanny Tool for detecting white space related problems in Python source files in a directory tree.

\*tarfile Read and write tar-format archive files.

telnetlib Telnet client class.

tempfile Generate temporary files and directories.

termios (Unix) POSIX style tty control.

- test Regression tests package containing the testing suite for Python.

textwrap Text wrapping and filling

\*threading Thread-based parallelism.

\*time Time access and conversions.

timeit Measure the execution time of small code snippets.

- tkinter Interface to Tcl/Tk for graphical user interfaces

token Constants representing terminal nodes of the parse tree.

tokenize Lexical scanner for Python source code.

trace Trace or track Python statement execution.

traceback Print or retrieve a stack traceback.

tracemalloc Trace memory allocations.

tty (Unix) Utility functions that perform common terminal control operations.

turtle An educational framework for simple graphics applications

turtledemo A viewer for example turtle scripts

types Names for built-in types.

typing Support for type hints (see PEP 484).

u

unicodedata Access the Unicode Database.

- unittest Unit testing framework for Python.

- urllib

uu Encode and decode files in uuencode format.

uuid UUID objects (universally unique identifiers) according to RFC 4122

v

venv Creation of virtual environments.

w

warnings Issue warning messages and control their disposition.

wave Provide an interface to the WAV sound format.

weakref Support for weak references and weak dictionaries.

webbrowser Easy-to-use controller for Web browsers.

winreg (Windows) Routines and objects for manipulating the Windows registry.

winsound (Windows) Access to the sound-playing machinery for Windows.

- wsgiref WSGI Utilities and Reference Implementation.

x

xdrlib Encoders and decoders for the External Data Representation (XDR).

- xml Package containing XML processing modules

- xmlrpc

z

zipapp Manage executable python zip archives

zipfile Read and write ZIP-format archive files.

zipimport support for importing Python modules from ZIP archives.

zlib Low-level interface to compression and decompression routines compatible with gzip