

Concrete Objects Layer

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\c-api\[cpython-main] [Doc] [c-api] concrete.rst, line 1)

Unknown directive type "highlight".

```
.. highlight:: c
```

The functions in this chapter are specific to certain Python object types. Passing them an object of the wrong type is not a good idea; if you receive an object from a Python program and you are not sure that it has the right type, you must perform a type check first; for example, to check that an object is a dictionary, use `cfunc:PyDict_Check`. The chapter is structured like the "family tree" of Python object types.

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Unknown interpreted text role "c:func".

Warning

While the functions described in this chapter carefully check the type of the objects which are passed in, many of them do not check for `NULL` being passed instead of a valid object. Allowing `NULL` to be passed in can cause memory access violations and immediate termination of the interpreter.

Fundamental Objects

This section describes Python type objects and the singleton object `None`.

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Unknown directive type "toctree".

```
.. toctree::

    type.rst
    none.rst
```

Numeric Objects

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Unknown directive type "index".

```
.. index:: object: numeric
```

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Unknown directive type "toctree".

```
.. toctree::

    long.rst
    bool.rst
    float.rst
    complex.rst
```

Sequence Objects

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Unknown directive type "index".

```
.. index:: object: sequence
```

Generic operations on sequence objects were discussed in the previous chapter; this section deals with the specific kinds of sequence objects that are intrinsic to the Python language.

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Unknown directive type "toctree".

```
.. toctree::

    bytes.rst
    bytearray.rst
    unicode.rst
    tuple.rst
    list.rst
```

Container Objects

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Unknown directive type "index".

```
.. index:: object: mapping
```

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Unknown directive type "toctree".

```
.. toctree::

    dict.rst
    set.rst
```

Function Objects

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Unknown directive type "toctree".

```
.. toctree::

    function.rst
    method.rst
    cell.rst
    code.rst
```

Other Objects

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Unknown directive type "toctree".

```
.. toctree::  
  
    file.rst  
    module.rst  
    iterator.rst  
    descriptor.rst  
    slice.rst  
    memoryview.rst  
    weakref.rst  
    capsule.rst  
    frame.rst  
    gen.rst  
    coro.rst  
    contextvars.rst  
    datetime.rst  
    typehints.rst
```