

Python Modules



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What is a Module?

Consider a module to be the same as a code library.

A file containing a set of functions you want to include in your application.

Create a Module

To create a module just save the code you want in a file with the file extension .py:

```
Example

Save this code in a file named mymodule.py

def greeting(name):
    print("Hello, " + name)
```

Use a Module

Now we can use the module we just created, by using the import statement:

Example

Import the module named mymodule, and call the greeting function:

```
import mymodule
mymodule.greeting("Jonathan")
```

Run Example »

Note: When using a function from a module, use the syntax: module_name.function_name.

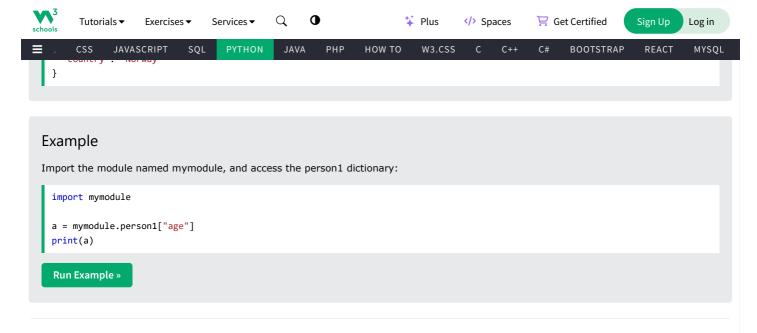
Variables in Module

The module can contain functions, as already described, but also variables of all types (arrays, dictionaries, objects etc):

Example

Save this code in the file mymodule.py





Naming a Module

You can name the module file whatever you like, but it must have the file extension .py

Re-naming a Module

You can create an alias when you import a module, by using the as keyword:

```
Example
Create an alias for mymodule called mx:

import mymodule as mx

a = mx.person1["age"]
print(a)

Run Example »
```

Built-in Modules

There are several built-in modules in Python, which you can import whenever you like.

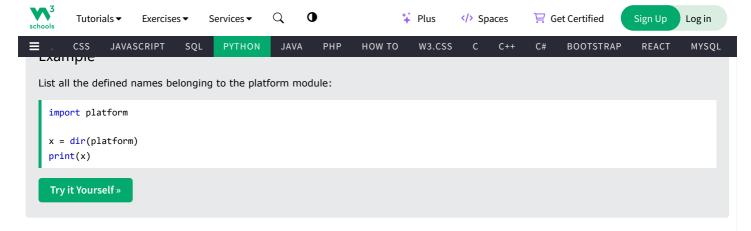
```
Example
Import and use the platform module:

import platform

x = platform.system()
print(x)

Try it Yourself »
```

Using the dir() Function



Note: The dir() function can be used on all modules, also the ones you create yourself.

Import From Module

You can choose to import only parts from a module, by using the **from** keyword.

Example

The module named mymodule has one function and one dictionary:

```
def greeting(name):
    print("Hello, " + name)

person1 = {
    "name": "John",
    "age": 36,
    "country": "Norway"
}
```

Example

Import only the person1 dictionary from the module:

```
from mymodule import person1
print (person1["age"])
```

Run Example »

Note: When importing using the from keyword, do not use the module name when referring to elements in the module. Example: person1["age"], **not** mymodule.person1["age"]

Test Yourself With Exercises

Exercise:

What is the correct syntax to import a module named "mymodule"?

