**MODULE CREATION**

**INDEX**

* What is a Module?
* Create a Module
* Use a Module
* Variables in Module
* Re-naming a Module
* Built-in Modules
* Using the dir() Function
* Import From Module

**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")***

**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

***person1 = {***

***"name": "John",***

***"age": 36,***

***"country": "Norway"***

***}***

Example

Import the module named mymodule, and access the person1 dictionary:

***import mymodule***

***a = mymodule.person1["age"]***

***print(a)***

**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)***

**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)***

**Using the dir() Function**

There is a built-in function to list all the function names (or variable names) in a module. The dir() function:

Example

List all the defined names belonging to the platform module:

***import platform***

***x = dir(platform)***

***print(x)***

**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"])***