PYTHON MODULES

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

```python
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")
```

To import module from specific path :

import sys

sys.path.append('D:\VNSGU\MCA 4\MCA 4 2020-21\PythonPrograms')

import moduledemo

moduledemo.greetings("Gargi")

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`

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

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

```python
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)
```

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:

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


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

Import only the person1 dictionary from the module:

```python
from mymodule import person1


print (person1["age"])
```