AET's
Atharva College of Engineering, Malad(W)
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Affiliated to University of Mumbai, ISO certified 9001:2015
**Department of Information Technology**
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# Experiment No : 10

**Aim :** Write python programs to understand, Creating User-defined modules/packages and import them in a program.

**Description:**
Python **modules** and Python **packages**, two mechanisms that facilitate **modular programming**.

**Python Modules**
Modules refer to a file containing Python statements and definitions.
A file containing Python code, for example: example.py, is called a module, and its module name would be example.
We use modules to break down large programs into small manageable and organized files. Furthermore, modules provide reusability of code.
We can define our most used functions in a module and import it, instead of copying their definitions into different programs.
We use the **import** keyword to import the definitions inside a module to another module.

**Python Packages**
Python has packages for directories and modules for files.
As our application program grows larger in size with a lot of modules, we place similar modules in one package and different modules in different packages. This makes a project (program) easy to manage and conceptually clear.
Similarly, as a directory can contain subdirectories and files, a Python package can have sub-packages and modules.
A directory must contain a file named __init__.py in order for Python to consider it as a package. This file can be left empty but we generally place the initialization code for that package in this file.

**Implementation:**

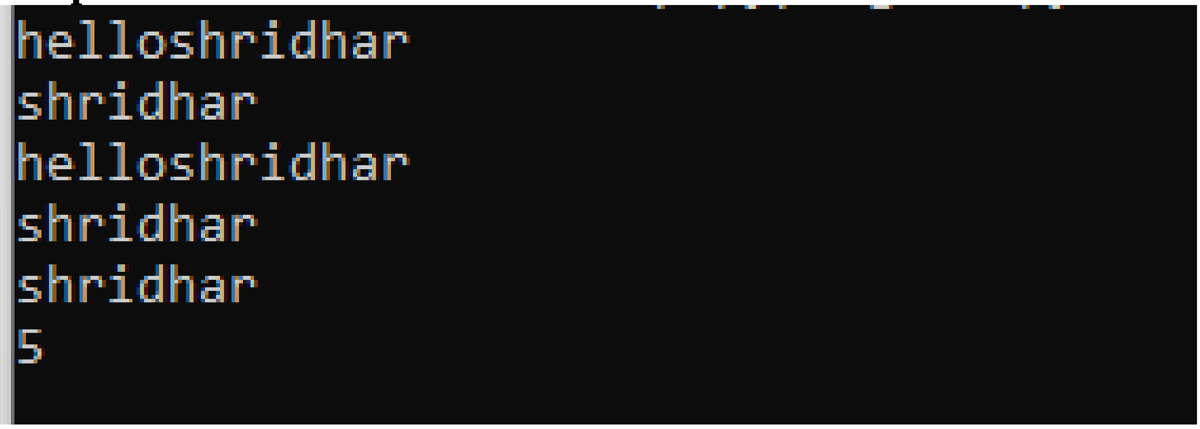
**Code :**

```
#module ((file) list, tuple , dictionary etc)
def abc(name):
 print("hello" + name)

shri={
   "a" : "shridhar",
   "b" : 5,
   "c" : True
}
```

---

```
# in  my project (need modules).without running it, result of function
display( because mymodule is import)
import mymodules
mymodules.abc("shridhar")
# dictionary name ( inside key a)
x=mymodules.shri["a"]
print(x)
# use short form of module(means rename using  as)
import mymodules as xyz
xyz.abc("shridhar")
x=xyz.shri["a"]
print(x)

# use mymodules part (like shri dictionary) use from
from mymodules import shri
print(shri["a"])
x=shri["b"]
print(x)
```

**Output:**



```
helloshridhar
shridhar
helloshridhar
shridhar
shridhar
5
```

**Conclusion :** We have successfully implemented the python programs, Creating User-defined modules/packages and import them in a program.