Experiment No 12

Title – Write a program to demonstrate calling function from another file.

A Python module is a file containing Python definitions and statements. A module can define functions, classes, and variables. A module can also include runnable code. A module allows you to logically organize your Python code. Grouping related code into a module makes the code easier to understand and use. A module is a Python object with arbitrarily named attributes that you can bind and reference.

**Create a Module**

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

# A simple module, calc.py

def add(x, y):

    return (x+y)

def subtract(x, y):

    return (x-y)

## ****Import Module in Python****

We can import the functions, and classes defined in a module to another module using the [**import statement**](https://www.geeksforgeeks.org/import-module-python/) in some other Python source file. When the interpreter encounters an import statement, it imports the module if the module is present in the search path. A search path is a list of directories that the interpreter searches for importing a module. For example, to import the module calc.py, we need to put the following command at the top of the script.

### ****Syntax of Python Import****

import module

Now, we are importing the **calc** that we created earlier to perform add operation.

|  |
| --- |
| # importing  module calc.py  import calc  print(calc.add(10, 2)) |

## ****The from-importStatement**** in Python

Python’s *from* statement lets you import specific attributes from a module without importing the module as a whole.

from calc import add, subtract

print(add(10, 2))

print(subtract(10, 2))

## Import all Names

The \* symbol used with the from import statement is used to import all the names from a module to a current namespace.

**Syntax:**

from calc import \*

print(add(10, 2))

print(subtract(10, 2))

## Renaming the Python module

We can rename the module while importing it using the keyword.

**Syntax:**Import **Module\_name** as **Alias\_name**

# importing  module calc.py

import calc as calculator

print(calculator.add(10, 2))

Exercise – Write the following programs by creating appropriate modules.

1. Write a program to check whether the number is strong number.
2. Write a program to multiply elements of two lists.
3. Write a program to test whether the tuple elements are prime numbers
4. Write a program to swap first and last letter of each word in the string.
5. Write a program to multiply digits available in a string of letters and digits. ( for e. ‘abc1234def ’ = 24)