EX.NO:6

DEVELOP A SIMPLE CALCULATOR USING XML-RPC

INTRO TO XML-RPC:

XML-RPC (Extensible markup language-remote procedure call) is a simple protocol that allows a program running one computer to execute functions on another computer(server) over a network.

AIM:

To develop a simple calculator applications using XML-RPC in python where the server performs arithmetic operations inputs sent from the client.

ALGORITHM:

SERVER:

1.Import simple XML-RPC (server from xm/rpc server).

2.define arithmetic functions(add,sub,mul,div).

3.Create an XML-RPC server object with host and host(eg:localhost:8000).

4.Register the functions with the server.

5.start the server.

CLIENT:

1.Import xmlrpc client.

2.Create a serverproxy object to connects the server.

3.Ask the user for the operation and input values.

4.call the appropriate function(add,sub,mul,div)through the proxy.

5.Display the result received from the server.

SERVER CODE:

```
def add(a, b):
   return a + b
```

```
def sub(a, b):
    return a - b

def mul(a, b):
    return a * b

def div(a, b):
    return a / b

def mod(a, b):
    return a % b

server = SimpleXMLRPCServer(("localhost", 8000))
print("Listening on port 8000...")

server.register_function(add, "add")
server.register_function(sub, "sub")
server.register_function(mul, "mul")
server.register_function(div, "div")
server.register_function(mod, "mod")

server.serve_forever()
```

CLIENT CODE:

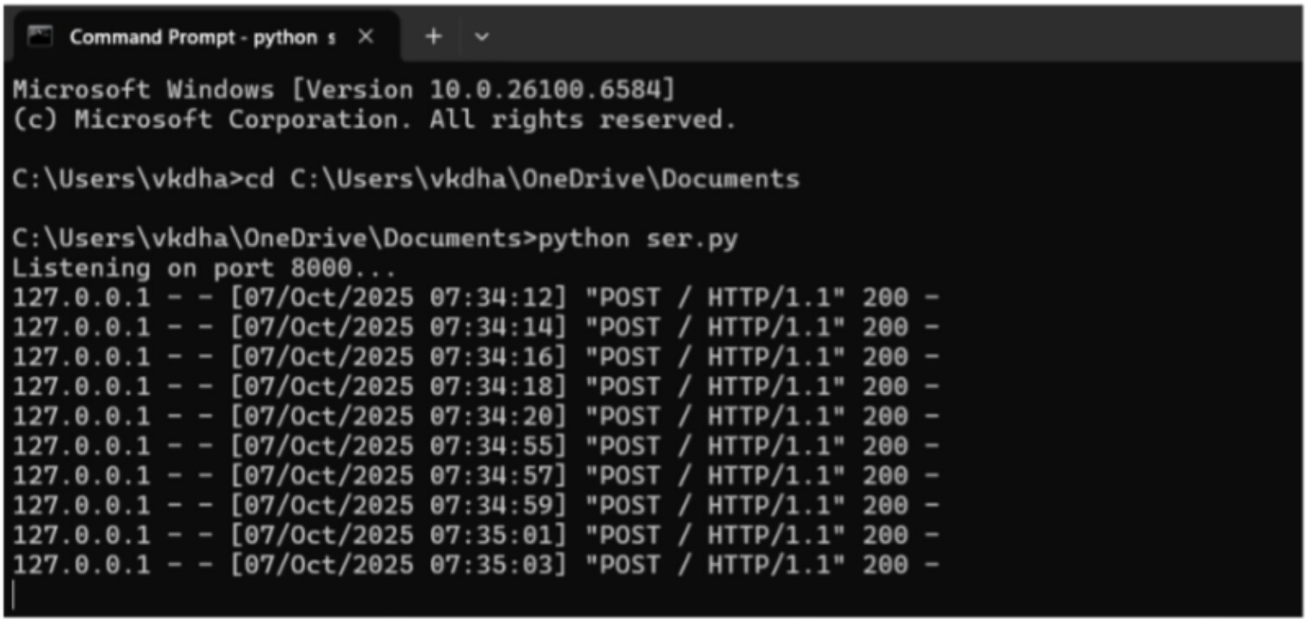
```
import xmlrpc.client

proxy = xmlrpc.client.ServerProxy('http://localhost:8000/')
```

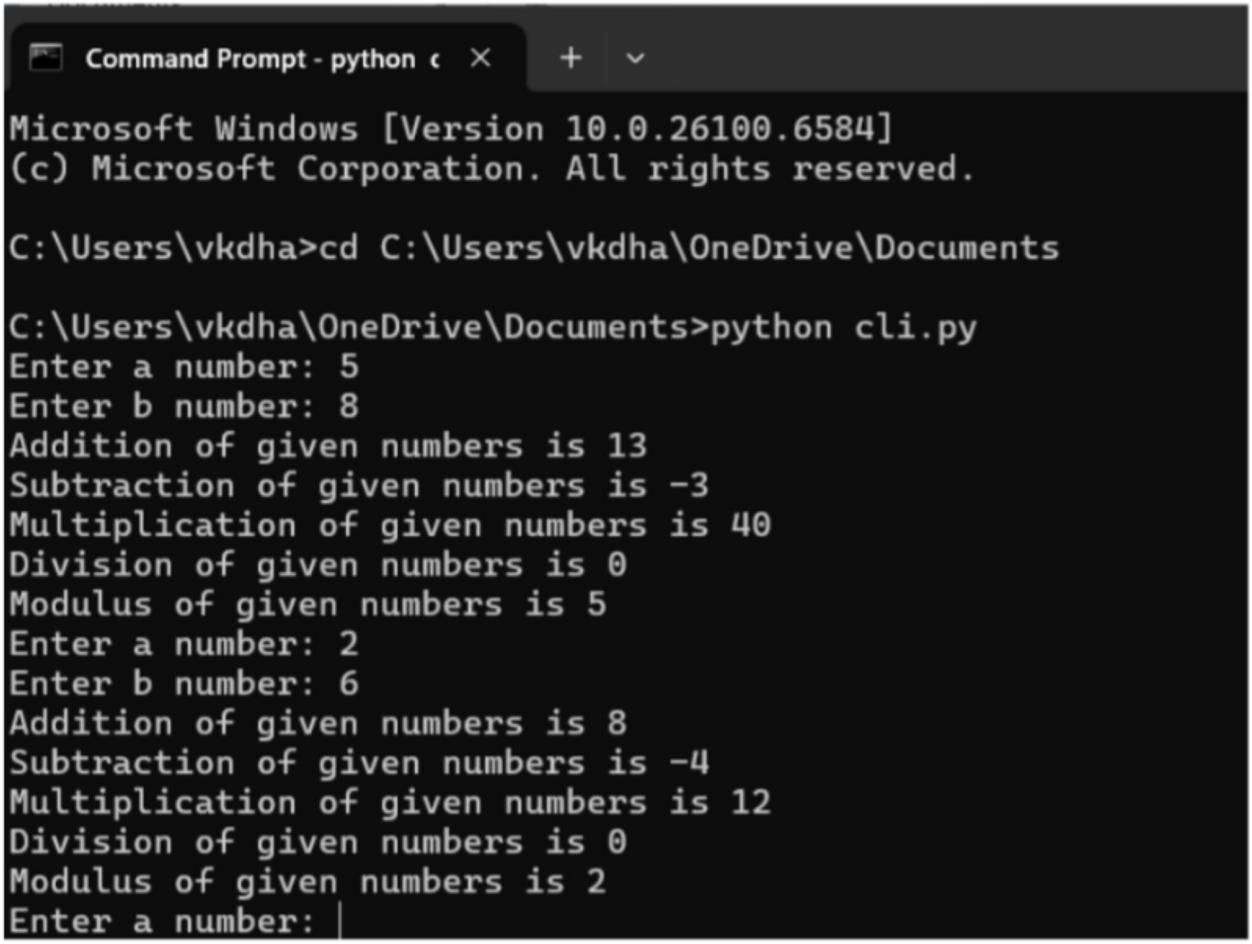
```
for i in range(5):
    a = int(input("Enter a number: "))
    b = int(input("Enter b number: "))

    print("Addition of given numbers is %d" % (proxy.add(a, b)))
    print("Subtraction of given numbers is %d" % (proxy.sub(a, b)))
    print("Multiplication of given numbers is %d" % (proxy.mul(a, b)))
    print("Division of given numbers is %d" % (proxy.div(a, b)))
    print("Modulus of given numbers is %d" % (proxy.mod(a, b)))
```

SERVER:



CLIENT:



RESULT:

A simple calculator using XML-RPC in python is successfully developed and performed arithmetic operation.