

NAME:THULASI.S
ROLL:NO:241901118

EXPERIMENT:5
DATE:25/8/25

DEVELOP A SIMPLE CALCULATOR USIN XMLRPC

AIM:

To develop a client-server application that perform basic arithmetic operations(add,subtract,multiply,division) using XMLRPC protocol.

ALGORITHM:

- 1.Start the server on a specific IP or port.
- 2.define function(add,sub,multiply,divide).
- 3.register all function with the server using their names.
- 4.start listening for incoming client requests.
- 5.ask the user to enter the number.
- 6.choose an operation(add,sub,mul,div).
- 7.receive the result from the server.

CODE:

SERVER

```
from xmlrpc.server import SimpleXMLRPCServer

def add(x, y): return x + y

def subtract(x, y): return x - y

def multiply(x, y): return x * y

def divide(x, y): if y == 0: return "Error: Division by zero"
return x / y
```

```
server.register_function(divide, 'div')
server.register_function(mod, 'mod')

server.serve_forever()
```

CLIENT

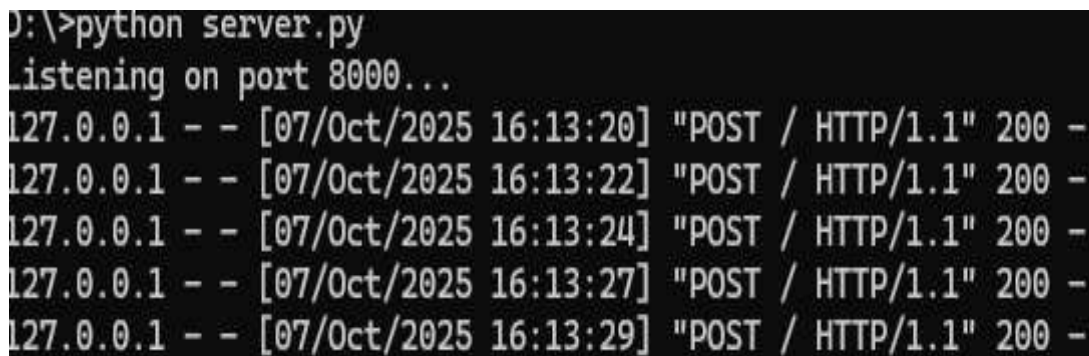
```
import xmlrpc.client

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 number is %d" % (proxy.add(a, b)))
print("sub of given number is %d" % (proxy.subtract(a, b)))
print("mul of given number is %d" % (proxy.multiply(a, b)))
print("div of given number is %d" % (proxy.division(a, b)))
print("mod of given number is %d" % (proxy.mod(a, b)))
```

OUTPUT:

A terminal window with a black background and green text. The first line shows the command 'D:\>python server.py' being executed. The second line shows the server output 'Listening on port 8000...'. The following five lines show client requests from '127.0.0.1' at various times, all resulting in a '200' status code. The requests are for POST methods: 'POST / HTTP/1.1', 'POST / HTTP/1.1', 'POST / HTTP/1.1', 'POST / HTTP/1.1', and 'POST / HTTP/1.1'.

```
D:\>python server.py
Listening on port 8000...
127.0.0.1 - - [07/Oct/2025 16:13:20] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [07/Oct/2025 16:13:22] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [07/Oct/2025 16:13:24] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [07/Oct/2025 16:13:27] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [07/Oct/2025 16:13:29] "POST / HTTP/1.1" 200 -
```

```
D:\>python client.py
Enter a number:5
Enter b number:4
addition of given number is 9
sub of given number is 1
mul of given number is 20
div of given number is 1
mod of given number is 1
Enter a number:|
```

RESULT:

The program has successfully performed simple calculator using XMLRPC and output has obtained.