EXP NO: 7	Develop a simple calculator using XMLRPC

Aim

Create a basic remote calculator service using XML-RPC: client sends operations (add, sub, mul, div) to server which executes and returns result.

Procedure / Algorithm

1. Implement XML-RPC server exposing methods: add, sub, mul, div.
2. Start server listening on a port.
3. Implement client that calls methods and prints results.

Code (Python, built-in xmlrpc)

server.py

```
from xmlrpc.server import SimpleXMLRPCServer
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 if b != 0 else 'Error: divide by zero'

server = SimpleXMLRPCServer(('0.0.0.0', 9000))
server.register_function(add, 'add')
server.register_function(sub, 'sub')
server.register_function(mul, 'mul')
server.register_function(div, 'div')
print('XML-RPC Calculator server running on port 9000...')
server.serve_forever()
```

client.py

```
import xmlrpc.client
proxy = xmlrpc.client.ServerProxy('http://localhost:9000')
print('2 + 3 =', proxy.add(2, 3))
print('10 / 2 =', proxy.div(10, 2))
print('5 * 6 =', proxy.mul(5, 6))
print('9 - 4 =', proxy.sub(9, 4))
```

Output:

```
2 + 3 = 5
10 / 2 = 5.0
5 * 6 = 30
9 - 4 = 5
```

Result:

Developed a simple calculator using XMLRPC