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DEVELOP A SIMPLE CALCULATOR USING XML-RPC

Aim:

To develop a simple calculator using XML-RPC that performs basic arithmetic operations like addition, subtraction, multiplication, and division between two numbers.

ALGORITHM:

Server:

- 1.Start the server program.
- 2.Import the XML-RPC library.
- 3.Define functions for add, subtract, multiply, and divide.
- 4.Register these functions with the XML-RPC server.
- 5.Run the server and wait for client requests.

Client:

- 1.Start the client program.
- 2.Import the XML-RPC library.
- 3.Connect to the XML-RPC server using its URL.
- 4.Call the required calculator function (add, subtract, etc.) with input values.
- 5.Display the result returned by the server.
- 6.Stop the program.

PROGRAM:

Server:

Server.py

```
From xmlrpc.server import
```

```
SimpleXMLRPCServer def add(a,b):
```

```
    return a+b
```

```
def sum(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.server_forever()
```

Client:

Client.py

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

OUTPUT

:

Server:

```
Microsoft Windows [Version 10.0.26100.1457]
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C:\Users\user>cd C:\Users\user\OneDrive\Documents

C:\Users\user\OneDrive\Documents>python calserver.py
Listening on port 8000...
127.0.0.1 - - [06/Oct/2025 14:25:20] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2025 14:25:22] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2025 14:25:24] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2025 14:25:26] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [06/Oct/2025 14:25:28] "POST / HTTP/1.1" 200 -
|
```

Client:

```
Windows PowerShell
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PS C:\Users\user> cd C:\Users\user\OneDrive\Documents
PS C:\Users\user\OneDrive\Documents> python calclient.py
Enter a number: 4
Enter b number: 7
Addition of given numbers is 11
Subtraction of given numbers is -3
Multiplication of given numbers is 28
Division of given numbers is 0
Modulus of given numbers is 4
-----
Enter a number: |
```

Result:

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