

Ex No : 11 C**Date :7/11/2024****REMOTE PROCEDURE CALL FOR LIST OPERATIONS- XMLRPC****AIM:****To Implement an XML RPC code for the following functions, a. No of****items in a list****b. Smallest element in a list****c. Largest element in the list****d. Converting a list to a set.****Program****Server Side:**

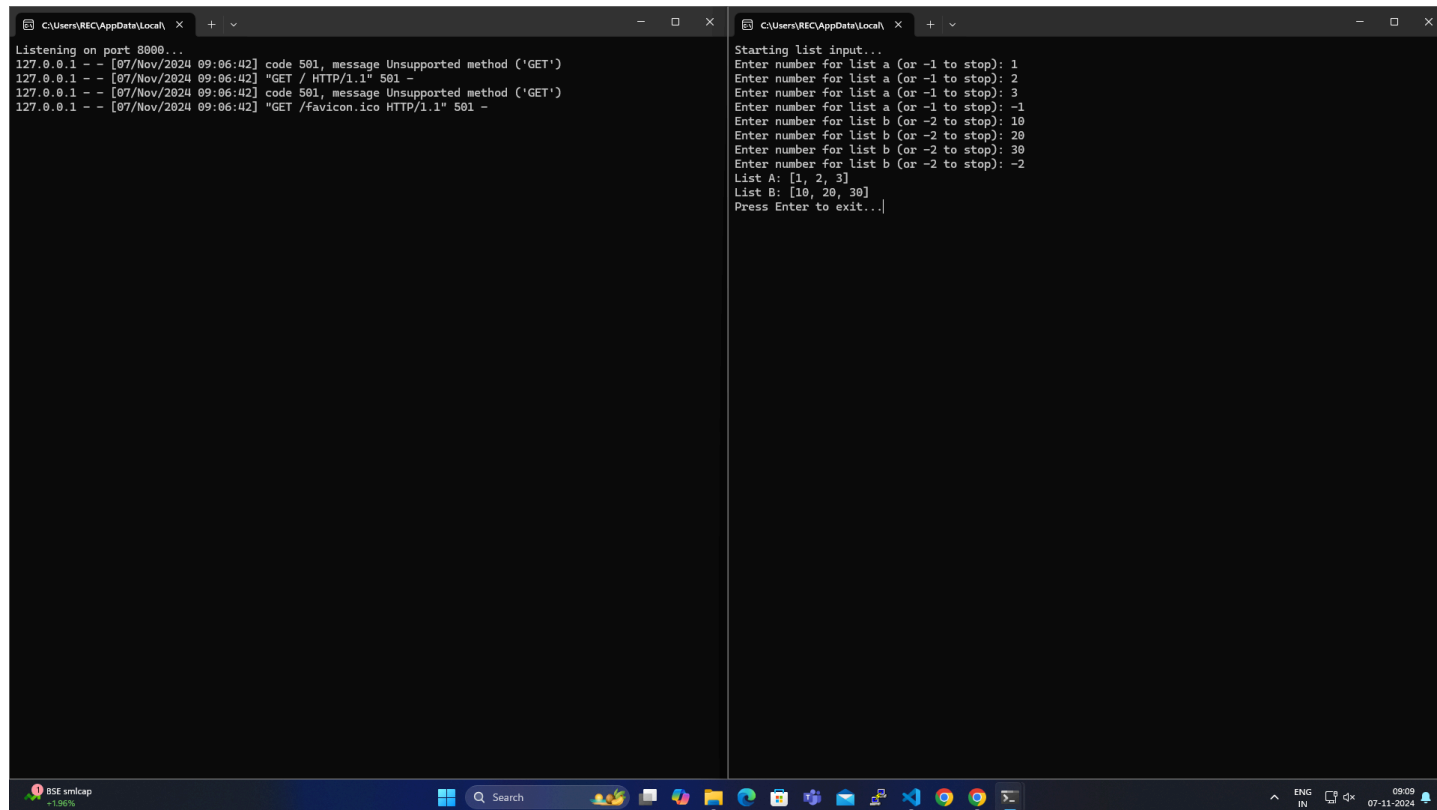
```
from xmlrpc.server import SimpleXMLRPCServer
def list_length(a):
    return len(a)
def list_maximum(a):
    return max(a)
def list_minimum(a):
    return min(a)
def list_to_set(a):
    f=list(set(a))
    return f
def list_concat(a,b):
    return a+b

server = SimpleXMLRPCServer(("localhost", 8000))
print("Listening on port 8000...")
server.register_function(list_length,"list_length")
server.register_function(list_maximum, "list_maximum")
server.register_function(list_minimum, "list_minimum")
server.register_function(list_to_set, "list_to_set")
server.register_function(list_concat, "list_concat")
server.serve_forever()
```

Client Side:

```
import xmlrpc.client
proxy= xmlrpc.client.ServerProxy('http://localhost:8000/') while
True:
    print("PRESS 1-->STRAT || 2--> STOP ")
    c=int(input("ENTER YOUR CHOICE"))
    a=[]
    b=[]
    if c==1:
        print("ENTER THE ELEMENTS TO ADD FIRST LIST") print("PRESS -1
        TO EXIT THIS LIST")
        while True:
            d=int(input("--->"))
            if d==-1:
                break
            a.append(d)
        print("ENTER THE ELEMENTS TO ADD SECOND LIST") print("PRESS -2
        TO EXIT THIS LIST")
        while True:
            e=int(input("--->"))
            if e==-2:
                break
            b.append(e)
        if c==2:
            break
        print(a)
        print(b)
        print("list_length",proxy.list_length(a))
        print("list_maximum",proxy.list_maximum(a))
        print("list_minimum",proxy.list_minimum(a))
        print("list_to_set",proxy.list_to_set(a))
        print("list_concate",proxy.list_concate(a,b))
```

Output



The image shows two side-by-side Windows command prompt windows. The left window displays network traffic logs for a server listening on port 8000. It shows three GET requests, all of which resulted in a 501 status code and the message 'Unsupported method'. The right window shows the output of a program that prompts the user to enter numbers for two lists, A and B. The user has entered 1, 2, and 3 for list A, and 10, 20, and 30 for list B. The program has displayed the entered values and is waiting for the user to press Enter to exit.

```
C:\Users\REC\AppData\Local\ x + v
Listening on port 8000...
127.0.0.1 - - [07/Nov/2024 09:06:42] code 501, message Unsupported method ('GET')
127.0.0.1 - - [07/Nov/2024 09:06:42] "GET / HTTP/1.1" 501 -
127.0.0.1 - - [07/Nov/2024 09:06:42] code 501, message Unsupported method ('GET')
127.0.0.1 - - [07/Nov/2024 09:06:42] "GET /favicon.ico HTTP/1.1" 501 -

C:\Users\REC\AppData\Local\ x + v
Starting list input...
Enter number for list a (or -1 to stop): 1
Enter number for list a (or -1 to stop): 2
Enter number for list a (or -1 to stop): 3
Enter number for list a (or -1 to stop): -1
Enter number for list b (or -2 to stop): 10
Enter number for list b (or -2 to stop): 20
Enter number for list b (or -2 to stop): 30
Enter number for list b (or -2 to stop): -2
List A: [1, 2, 3]
List B: [10, 20, 30]
Press Enter to exit...
```

Result: Thus , a remote procedure for list procedure is done using XMLRPC