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Batch : B4

Aim : Program for distributed application using RPC

rpsserver.py

```
from xmlrpc.server import SimpleXMLRPCServer
```

```
import xmlrpc.client
```

```
def fact(n):
```

```
    if n < 0:
```

```
        return 0
```

```
    elif n == 0 or n == 1:
```

```
        return 1
```

```
    else:
```

```
        fact = 1
```

```
        while(n > 1):
```

```
            fact *= n
```

```
            n -= 1
```

```
        return fact
```

```
server = SimpleXMLRPCServer(("localhost",8000))
```

```
print("Server is listening on port 8000...")
```

```
server.register_function(fact,"fact")
```

```
server.serve_forever()
```

rpcclient.py

```
import xmlrpc.client
```

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

```
n = int(input("Enter a number to calculate factorial: "))
```

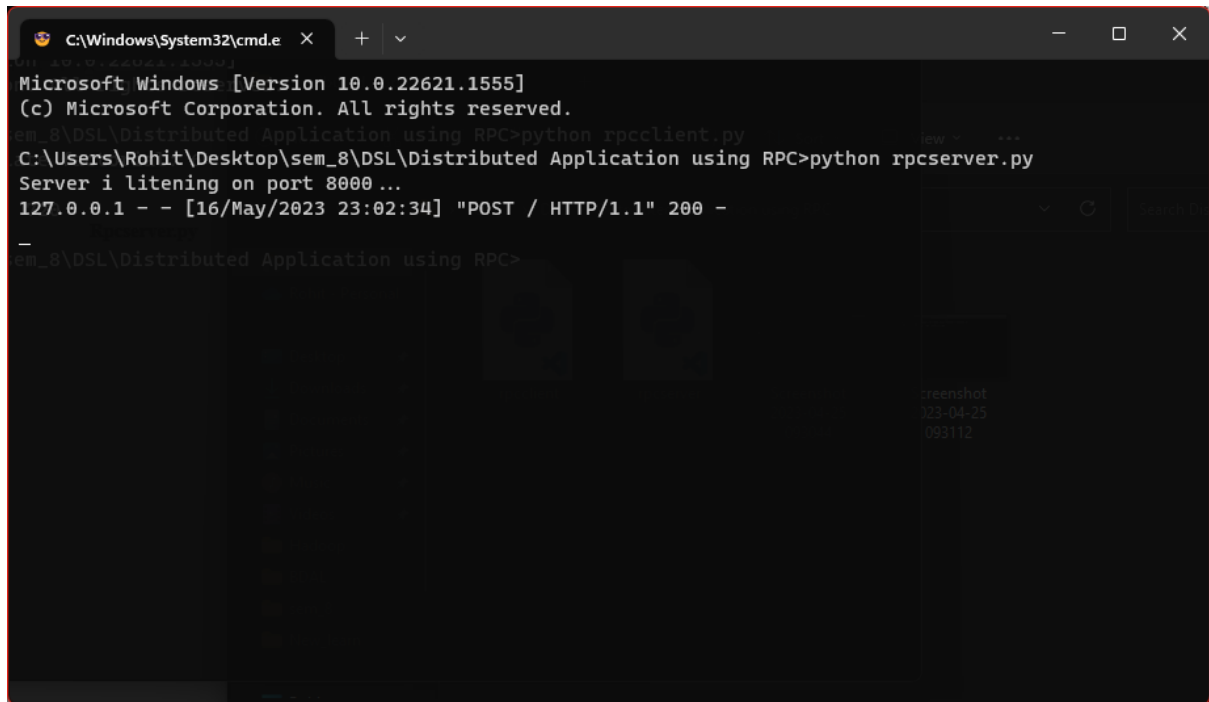
```
factorial = proxy.fact(n)
```

```
print("Response from server..")
```

```
print("Factorial of number is :",factorial)
```

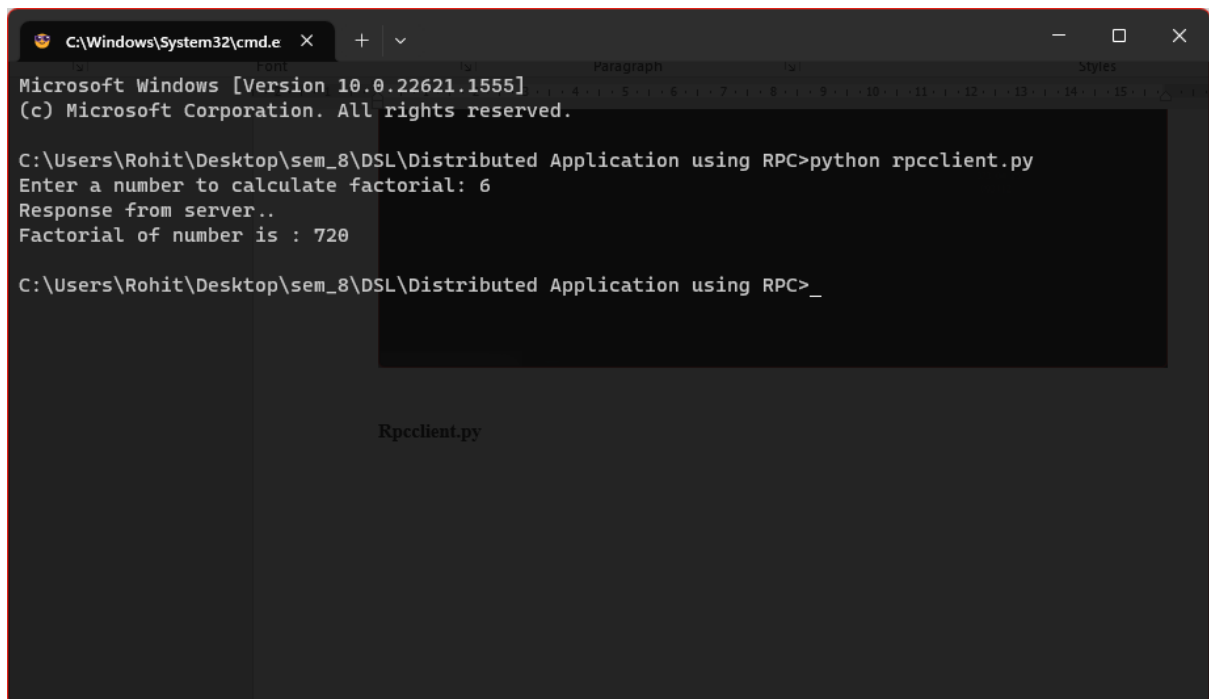
Output :

Rpcserver.py



```
C:\Windows\System32\cmd.e X + v
Microsoft Windows [Version 10.0.22621.1555]
(c) Microsoft Corporation. All rights reserved.
em_8\DSL\Distributed Application using RPC>python rpcclient.py
C:\Users\Rohit\Desktop\sem_8\DSL\Distributed Application using RPC>python rpcserver.py
Server i litening on port 8000...
127.0.0.1 - - [16/May/2023 23:02:34] "POST / HTTP/1.1" 200 -
em_8\DSL\Distributed Application using RPC>
```

Rpcclient.py



```
C:\Windows\System32\cmd.e X + v
Microsoft Windows [Version 10.0.22621.1555]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Rohit\Desktop\sem_8\DSL\Distributed Application using RPC>python rpcclient.py
Enter a number to calculate factorial: 6
Response from server..
Factorial of number is : 720

C:\Users\Rohit\Desktop\sem_8\DSL\Distributed Application using RPC>_
```