

```
#server side

import xmlrpc.server

# Define the factorial function
def factorial(n):
    if n == 0:
        return 1
    else:
        return n * factorial(n-1)

# Create an XML-RPC server
server = xmlrpc.server.SimpleXMLRPCServer(("localhost", 8000))

# Register the factorial function with the server
server.register_function(factorial, "factorial")

# Start the server
print("Server is running on port 8000...")
server.serve_forever()

#client side

import xmlrpc.client

# Create an XML-RPC proxy to connect to the server
proxy = xmlrpc.client.ServerProxy("http://localhost:8000/")

# Prompt the user to enter an integer
```

```
num = int(input("Enter an integer: "))
```

```
# Call the remote factorial function on the server
```

```
result = proxy.factorial(num)
```

```
# Display the result
```

```
print(f"The factorial of {num} is {result}.")
```

```
Last login: Sun Apr 14 23:47:24 on ttys006
(base) omkarsomeshwarkondhalkar@Omkars-MacBook-Air ~ % cd ~/Documents

(base) omkarsomeshwarkondhalkar@Omkars-MacBook-Air Documents % python server.py

Server is running on port 8888.
127.0.0.1 - - [14/Apr/2024 23:52:56] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [14/Apr/2024 23:53:16] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [14/Apr/2024 23:53:43] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [14/Apr/2024 23:53:49] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [14/Apr/2024 23:54:31] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [14/Apr/2024 23:54:44] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [14/Apr/2024 23:54:50] "POST / HTTP/1.1" 200 -
127.0.0.1 - - [14/Apr/2024 23:55:31] "POST / HTTP/1.1" 200 -
█
```

```
Last login: Sun Apr 14 23:47:30 on ttys007
(base) omkarsomeshwarkondhalkar@Omkars-MacBook-Air ~ % cd ~/Documents

(base) omkarsomeshwarkondhalkar@Omkars-MacBook-Air Documents % python client.py
Enter an integer: 9
The factorial of 9 is 362880.
(base) omkarsomeshwarkondhalkar@Omkars-MacBook-Air Documents % python client.py
Enter an integer: 5
The factorial of 5 is 120.
(base) omkarsomeshwarkondhalkar@Omkars-MacBook-Air Documents % python client.py
Enter an integer: 2
The factorial of 2 is 2.
(base) omkarsomeshwarkondhalkar@Omkars-MacBook-Air Documents % python client.py
Enter an integer: 8
The factorial of 8 is 40320.
(base) omkarsomeshwarkondhalkar@Omkars-MacBook-Air Documents % █
```