

# DSCD ASSIGNMENT 1

## Part 2: Using ZeroMQ to Low-Level Group Messaging Application

There are three files: message\_Server.py, group.py, user\_1.py

```
PS C:\Users\Poorvi\Downloads\IIITD imp\Sem 6\DSCD\Assignment1_zmq> py .\message_server.py
Server started, listening on 5555
```

The message\_server has two functions. To register a group or to fetch grouplist for the user.

```
PS C:\Users\Poorvi\Downloads\IIITD imp\Sem 6\DSCD\Assignment1_zmq> py .\message_server.py
Server started, listening on 5555
JOIN REQUEST FROM group1 - 192.168.44.146:5662
GROUP LIST REQUEST FROM 08be6c8b-ccf0-11ee-80d9-84144db2bec9
```

Above the join request is made from group1 with port 5662. Group list request is made by user with given uuid.

```
PS C:\Users\Poorvi\Downloads\IIITD imp\Sem 6\DSCD\Assignment1_zmq> py .\group.py
Attempting to register the group...
Enter group name: group1
SUCCESS
Group server started, listening on 5662
```

group.py prints "SUCCESS" after getting registered and is ready to receive messages from the user.

```

PS C:\Users\Poorvi\Downloads\IIITD imp
DSCD\Assignment1_zmq> py .\user_1.py

---- Operations ----

1: Get Group List
2: Join Group
3: Leave Group
4: Get Messages
5: Send Message
6: Exit
Enter your choice: 1
Group List [NAME - IP:PORT]:
group1 - 192.168.44.146:5662

```

user\_1.py operates with a menu. Here the user has requested the message\_server for all registered group. Other functions the user can perform are shown in the menu.

<pre> JOIN REQUEST FROM 08be6c8b-ccf0-11ee-80d9-8414 4db2bec9 </pre>	<pre> ---- Operations ----  1: Get Group List 2: Join Group 3: Leave Group 4: Get Messages 5: Send Message 6: Exit Enter your choice: 2 Enter the group PORT to join: 5662 Joined the group group1. SUCCESS </pre>
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User joining group1.

<pre> MESSAGE SEND FROM 08be6c8b-ccf0-11ee-80d9-8414 4db2bec9 </pre>	<pre> ---- Operations ----  1: Get Group List 2: Join Group 3: Leave Group 4: Get Messages 5: Send Message 6: Exit Enter your choice: 5 Enter the group PORT to send message: 5662 Enter the message content: hi i am user1 SUCCESS </pre>
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Upon successfully sending a message to group1, the user prints "SUCCESS"

<pre> MESSAGE REQUEST FROM 08be6c8b-ccf0-11ee-80d9-8 4144db2bec9 [ </pre>	<pre> 1: Get Group List 2: Join Group 3: Leave Group 4: Get Messages 5: Send Message 6: Exit Enter your choice: 4 Enter the group PORT to get messages: 5662 Enter timestamp [DD/MM/YYYY HH:MM:SS] (press Enter to skip): Messages: (16/02/2024 23:06:08) hi i am user1 </pre>
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Upon requesting the messages of the group, the messages are displayed on the user side along with the timestamps.

<pre> LEAVE REQUEST FROM 08be6c8b-ccf0-11ee-80d9-841 44db2bec9 [ </pre>	<pre> 2: Join Group 3: Leave Group 4: Get Messages 5: Send Message 6: Exit Enter your choice: 3 Enter the group PORT to leave: 5662 Left the group group1. SUCCESS </pre>
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After the user has left group1, the user side prints "SUCCESS"