

To show the user communication and the use of this app, the following images related to establishing and sending messages between three friends named Zahra, Mona and Saba are given, which in this example, the features of registration, friend list, private message, conference message, login to the user account successfully, failure to login to the account and the message file are shown. Also, received messages are displayed in blue.

Zahra :

```
[*] Connecting to 127.0.0.1:5002...
[*] Connected.
Hello and Welcome <3
For sign up enter s and for login enter l: s
Enter your name for signing up (it has to be unique and only letters) : zahra
Enter your password : 1234567890
sign up Successfully! You can send messages now
select between q for quit, m for message, f for friend list, c for conference: m
enter receiver name: saba
entered name does not belong to your friend list... you can add it by entering f
select between q for quit, m for message, f for friend list, c for conference: f

enter your new friend name, to exit this section enter q, to delete a friend name enter d: saba
added successfully!
select between q for quit, m for message, f for friend list, c for conference: m
enter receiver name: saba
hi saba, this is zahra
select between q for quit, m for message, f for friend list, c for conference:
[2022-07-03 21:58:23] saba: hi zahra how are you?
q
enter receiver name: saba
is saba
select between q for quit, m for message, f for friend list, c for conference:
Conference->[2022-07-03 21:59:40] mona: hello saba and zahra, this is mona!
```

```
enter receiver name: saba
entered name does not belong to your friend list... you can add it by entering f
select between q for quit, m for message, f for friend list, c for conference: f

enter your new friend name, to exit this section enter q, to delete a friend name enter d: saba
added successfully!
select between q for quit, m for message, f for friend list, c for conference: m
enter receiver name: saba
hi saba, this is zahra
select between q for quit, m for message, f for friend list, c for conference:
[2022-07-03 21:58:23] saba: hi zahra how are you?
q
enter receiver name: saba
is saba
select between q for quit, m for message, f for friend list, c for conference:
Conference->[2022-07-03 21:59:40] mona: hello saba and zahra, this is mona!

Conference->[2022-07-03 22:06:53] saba: hey, sorry i have to leave

saba is out.
q
enter message (for leaving the conference enter quit): hi im sorry i will make another conf soon
select between q for quit, m for message, f for friend list, c for conference: q
enter message (for leaving the conference enter quit): quit
select between q for quit, m for message, f for friend list, c for conference: |
```

Saba :

```
[*] Connecting to 127.0.0.1:5002...
[*] Connected.
Hello and Welcome <3
For sign up enter s and for login enter l: s
Enter your name for signing up (it has to be unique and only letters) : saba
Enter your password : 123456789
sign up Successfully! You can send messages now
select between q for quit, m for message, f for friend list, c for conference:
[2022-07-03 21:57:58] zahra: hi saba, this is zahra
f

enter your new friend name, to exit this section enter q, to delete a friend name enter d: zahra
added successfully!
select between q for quit, m for message, f for friend list, c for conference: m
enter receiver name: zahra
hi zahra how are you?
select between q for quit, m for message, f for friend list, c for conference:
[2022-07-03 21:58:35] zahra: im good

Conference->[2022-07-03 21:59:40] mona: hello saba and zahra, this is mona!
c
enter message (for leaving the conference enter quit): hey, sorry i have to leave
select between q for quit, m for message, f for friend list, c for conference: q
enter message (for leaving the conference enter quit): quit
```

Mona :

```
[*] Connecting to 127.0.0.1:5002...
[*] Connected.
Hello and Welcome <3
For sign up enter s and for login enter l: s
Enter your name for signing up (it has to be unique and only letters) : saba
Enter your password : 123456789
sign up Successfully! You can send messages now
select between q for quit, m for message, f for friend list, c for conference: c
for conference enter at least 2 names from friend list, enter q when its done

1'st friend: saba
entered name is wrong!

1'st friend: f
for starting conference you need at least 2 friends, try again later!
select between q for quit, m for message, f for friend list, c for conference: f

enter your new friend name, to exit this section enter q, to delete a friend name enter d: saba
added successfully!
select between q for quit, m for message, f for friend list, c for conference: f

saba
enter your new friend name, to exit this section enter q, to delete a friend name enter d: zahra
added successfully!
select between q for quit, m for message, f for friend list, c for conference: c
for conference enter at least 2 names from friend list, enter q when its done
saba, zahra

1'st friend: saba
2'st friend: zahra
3'st friend: q
select between q for quit, m for message, f for friend list, c for conference: m
enter message (for leaving the conference enter quit): hello saba and zahra, this is mona!
select between q for quit, m for message, f for friend list, c for conference:
Conference->[2022-07-03 22:06:53] saba: hey, sorry i have to leave

saba is out.

Conference->[2022-07-03 22:08:04] zahra: hi im sorry i will make another conf soon

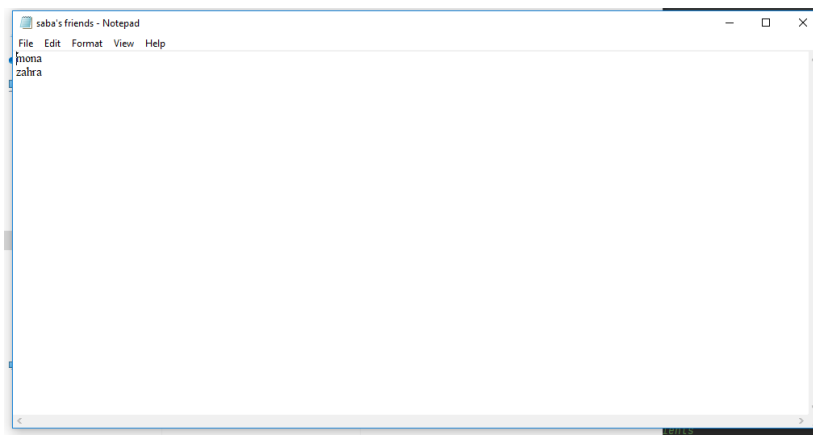
zahra is out.
```

Server :

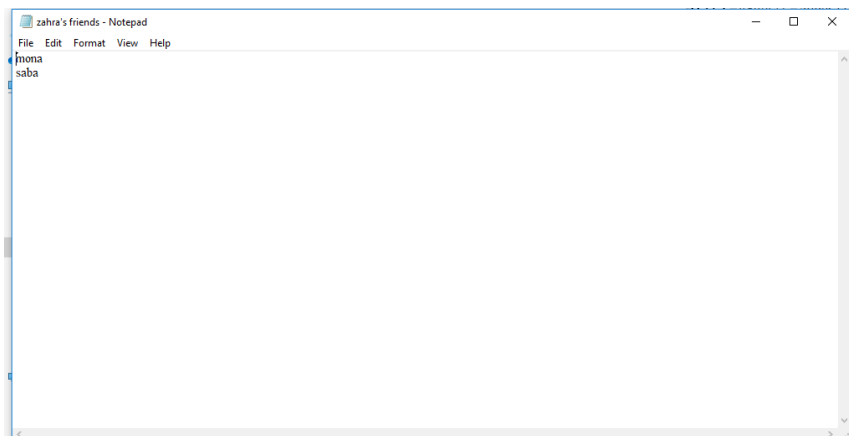
```
C:\Users\mona> python C:\Users\mona\Documents\python\Project\mona\mona.py
[*] Listening as 0.0.0.0:5002
[+] ('127.0.0.1', 12739) connected.
[+] ('127.0.0.1', 12746) connected.
[+] ('127.0.0.1', 12749) connected.
```

Friends list:

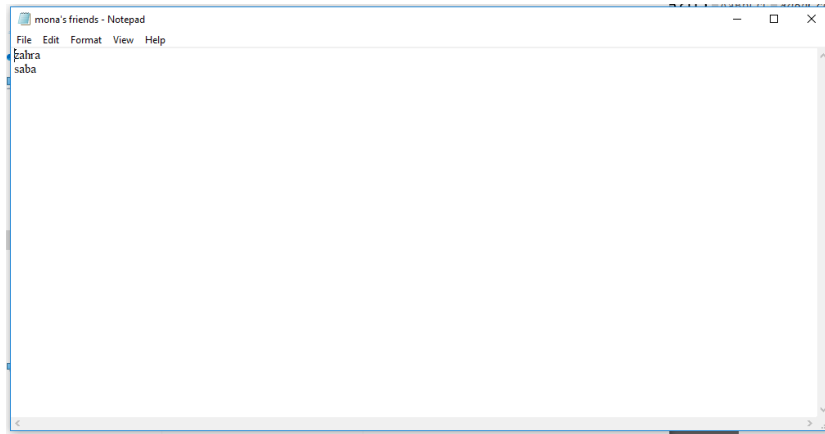
Saba :



Zahra :

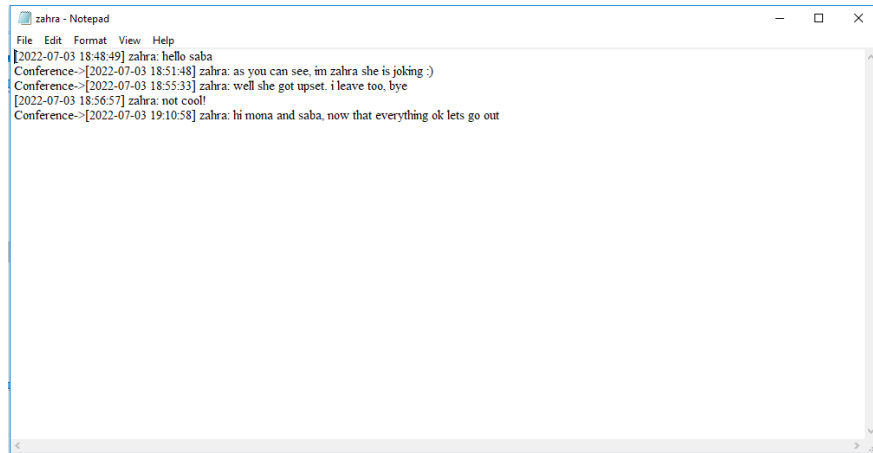


Mona :

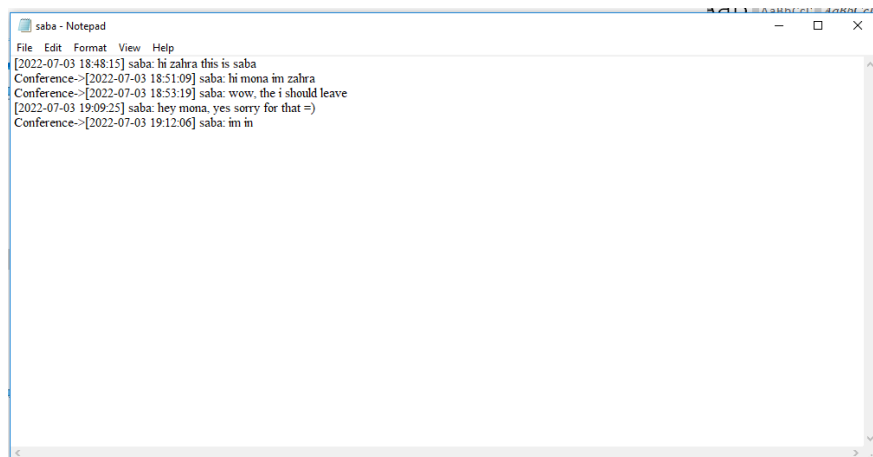


Messages:

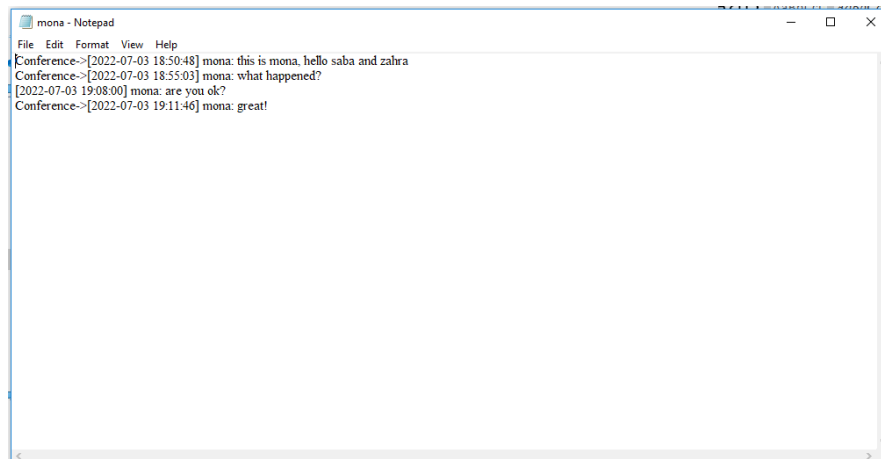
Zahra :



Saba :



Mona :



Login:

Unsuccessful:

```
[*] Connecting to 127.0.0.1:5002...
[+] Connected.
Hello and Welcome <3
For sign up enter s and for login enter l: l
Enter your name for logging in (it has to be only letters) : saba
Enter your password : 123456
saba or password is incorrect! Try again later...
[+] Disconnected.

Process finished with exit code 0
```

Successful:

```
[*] Connecting to 127.0.0.1:5002...
[+] Connected.
Hello and Welcome <3
For sign up enter s and for login enter l: l
Enter your name for logging in (it has to be only letters) : saba
Enter your password : 123456
Login Successfully! You can send messages now
select between q for quit, m for message, f for friend list, c for conference: m
enter receiver name: zahra
In Room :)
select between q for quit, m for message, f for friend list, c for conference:
```