Read me

The Prog Assn #2 has three files :
1. Server.py
2. Client.py
3. P2.py

On Machine 1 Run P2

python3 P2.py

Similarly, on n machines we run P2.py. P2 starts a server in the background and client and Linda in the foreground.

Commands supported are :

add ip port : To add a host. Hosts connect with each other only when the add command is given.

out(1,2) : Outputs a tuple to two hosts. Host 1 is selected by md5 hashing and host 2 is selected as back up.

rd(1,2) : Reads Tuple from the Tuple space. If a process is killed, it will read from the back up.

in_(1,2) : In command is implemented as in_(). It reads a data and then deletes it from Tuple Space.

Sample Execution screenshots :
Machine 1

```
[Sumithas-MacBook-Air:P2 sumitha$ python3 P2.py
10.0.0.70 at port number: 63000
Server is running.....
Linda> Host added : ('10.0.0.70', 63000)
Connection Accepted from ('10.0.0.70', 63001)
HOST ID
{0: ('10.0.0.70', 63000)}

Linda> add 10.0.0.70 63003
Linda> Host added : ('10.0.0.70', 63003)
HOST ID
{0: ('10.0.0.70', 63000), 1: ('10.0.0.70', 63003)}

Linda> add 23.253.20.67 52353
Linda> Host added : ('23.253.20.67', 52353)
HOST ID
{0: ('10.0.0.70', 63000), 1: ('10.0.0.70', 63003), 2: ('23.253.20.67', 52353)}

Linda> out(1,2)
Out operation: Put tuple (1, 2)on 23.253.20.67
Out operation: Put tuple (1, 2)on 10.0.0.70


Tuple Space
(1, 2)
Linda> out(6,6)
Out operation: Put tuple (6, 6)on 10.0.0.70
Out operation: Put tuple (6, 6)on 23.253.20.67
Linda> ^Z
[8]+  Stopped                 python3 P2.py
Sumithas-MacBook-Air:P2 sumitha$ ▊
```

Machine 2:

```
Sumithas-MacBook-Air:P2 sumitha$ python3 P2.py
10.0.0.70 at port number: 63003
Server is running.....
Linda> Host added : ('10.0.0.70', 63003)
Connection Accepted from ('10.0.0.70', 63004)
HOST ID
{0: ('10.0.0.70', 63003)}

Linda> Connection Accepted from ('10.0.0.70', 63005)


Tuple Space
(1, 2)

Linda> rd(1,2)


Tuple Space
(1, 2)
Read operation: Tuple (1, 2) available in Tuple Space
Linda> out('abc',3)


Tuple Space
(1, 2)
('abc', 3)


Tuple Space
(1, 2)
('abc', 3)
('abc', 3)
Linda>

Tuple Space
(1, 2)
('abc', 3)
('abc', 3)
(6, 6)

Linda> ^Z
[4]+  Stopped                 python3 P2.py
Sumithas-MacBook-Air:P2 sumitha$
```

Machine 3:

```
$ python3 P2.py
23.253.20.67 at port number: 52353
Server is running.....
Linda> Connection Accepted from ('23.253.20.67', 42017)
Host added : ('23.253.20.67', 52353)
HOST ID
{0: ('23.253.20.67', 52353)}

Linda> Connection Accepted from ('50.156.90.56', 63006)


Tuple Space
(1, 2)

Linda>

Tuple Space
(1, 2)
(6, 6)

Linda> in_(6,6)


Tuple Space
In operation: Get tuple (6, 6)on 23.253.20.67
(1, 2)
Linda>
```