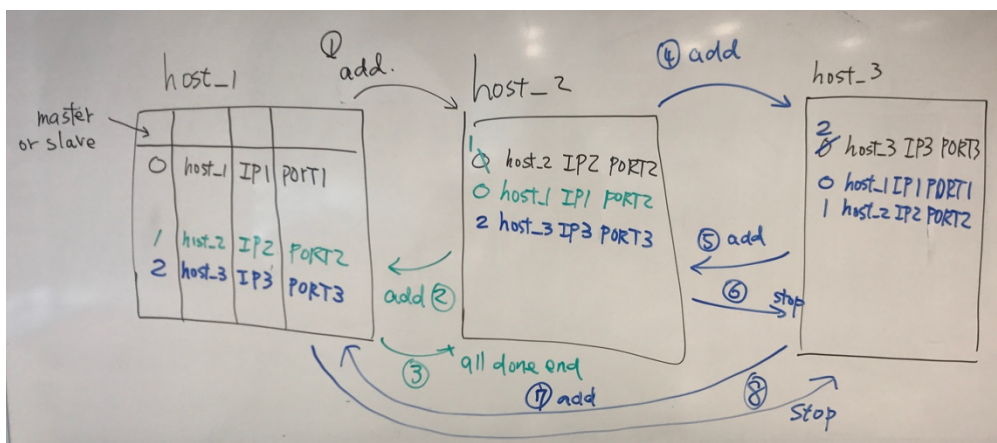
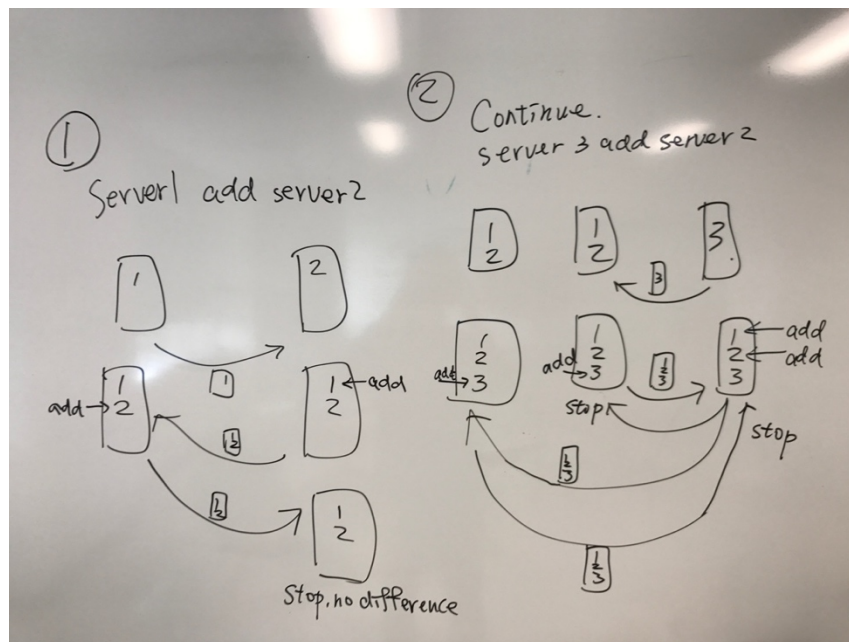


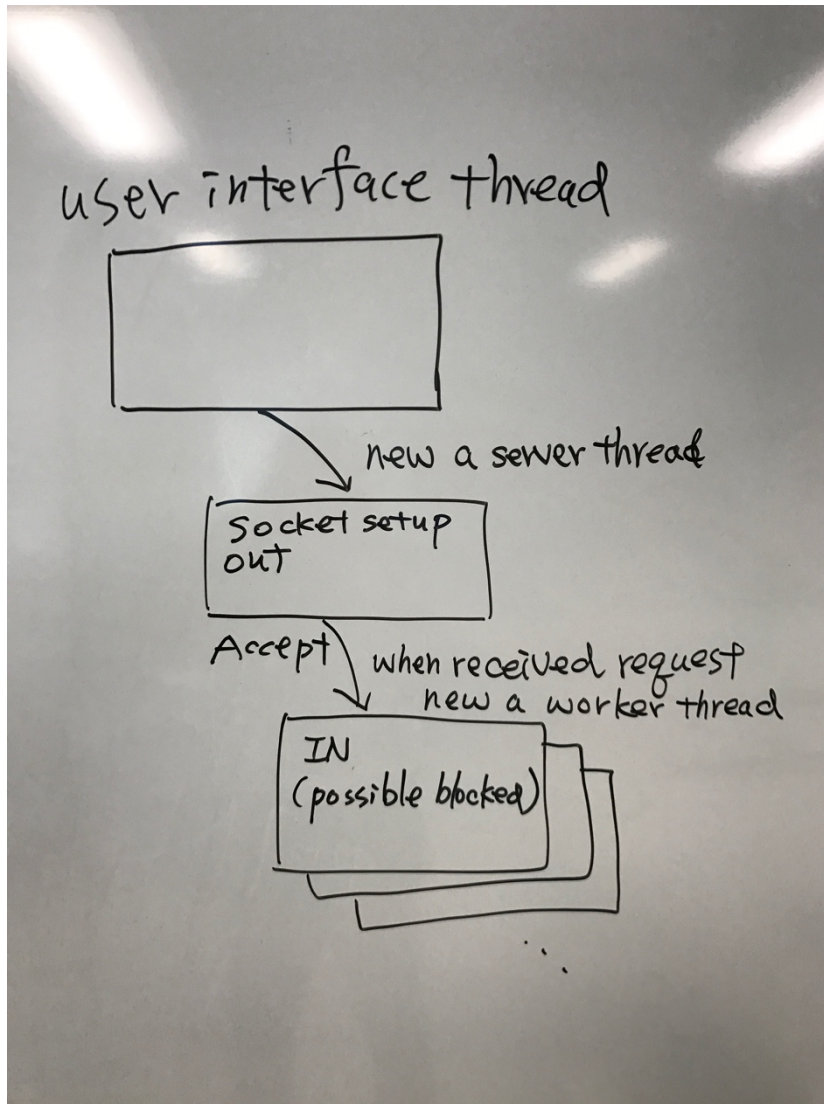
# Server Setup Stage

1. New server instance (in command line)
  - a. Use SSH with your host addr(129.210.16.80 to 99 that means host\_1 to host\_20).
  - b. Randomly pick one available port ([Link](#)).
2. Add other server at Linda Mode (your user interface, 0 is the leader.)
  - a. Read user input for IPAddr and port no.
  - b. Current server will send its nets table to the designated server. This server will check if there is any different host that he didn't contain in its nets table. If there is no difference then stop. Otherwise, he will add all the difference to its nets table first; then, send its updated nets table to all newly added hosts, the idea as shown below:



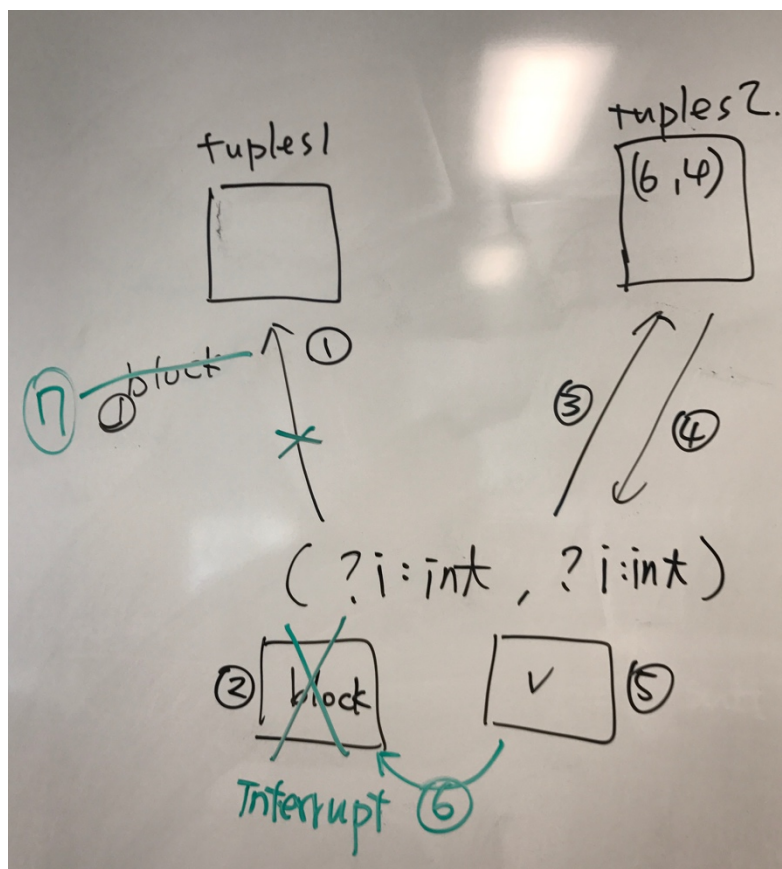
- c. Therefore, we have to develop one protocol for nets table adding.

# System Overview



# Linda command prompt

1. OUT, put the tuple in the tuple space.
  - a. Read user input.
  - b. In order to find the specific server to store the tuple, we transform the user input tuple into a string; use md5sum, mod the current server count to get the corresponding server's addr and port no; then, send the request to the server.
  - c. That means we also have to include one protocol here for add the tuple.
2. IN, retrieve tuple in the tuple space.
  - a. Read the user input and you need to parse it:
    - i. If there is "?" operator? If not, it's easy, just follow the previous step.
    - ii. Yes: (I think this is the most tricky part), how will you handle multithreading? You will need to interrupt other thread when one of the worker thread get the response.



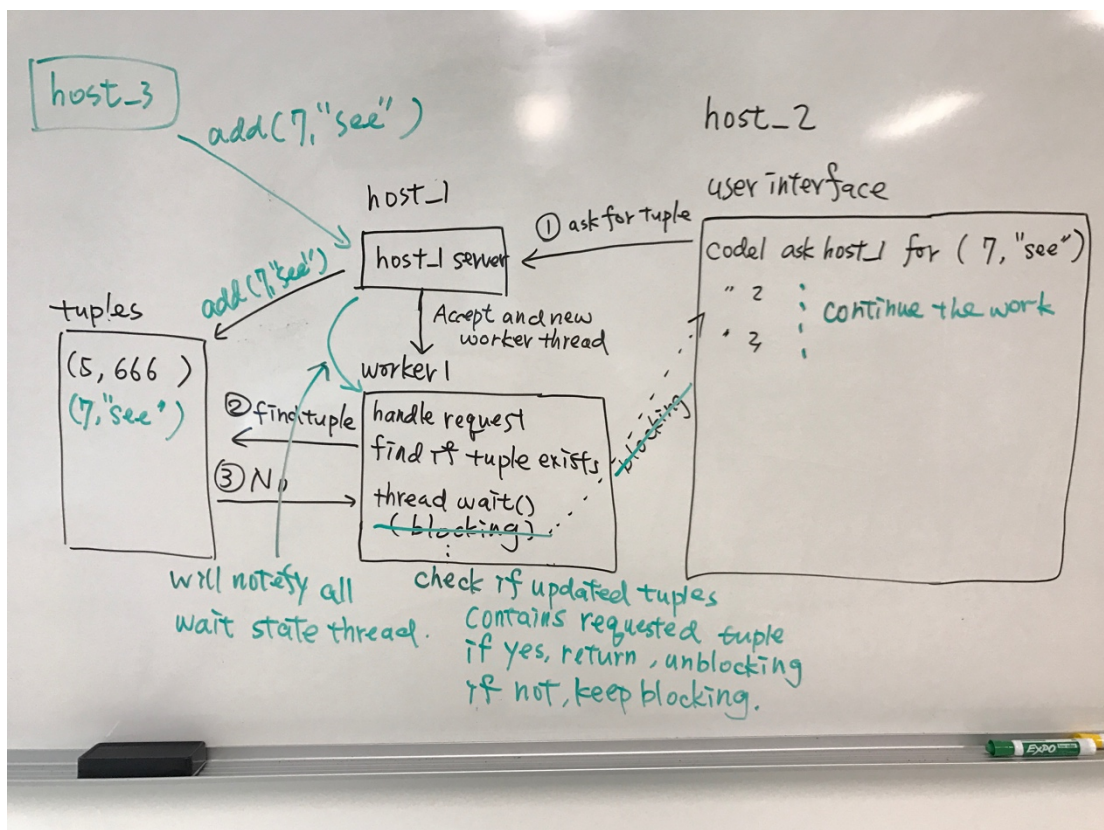
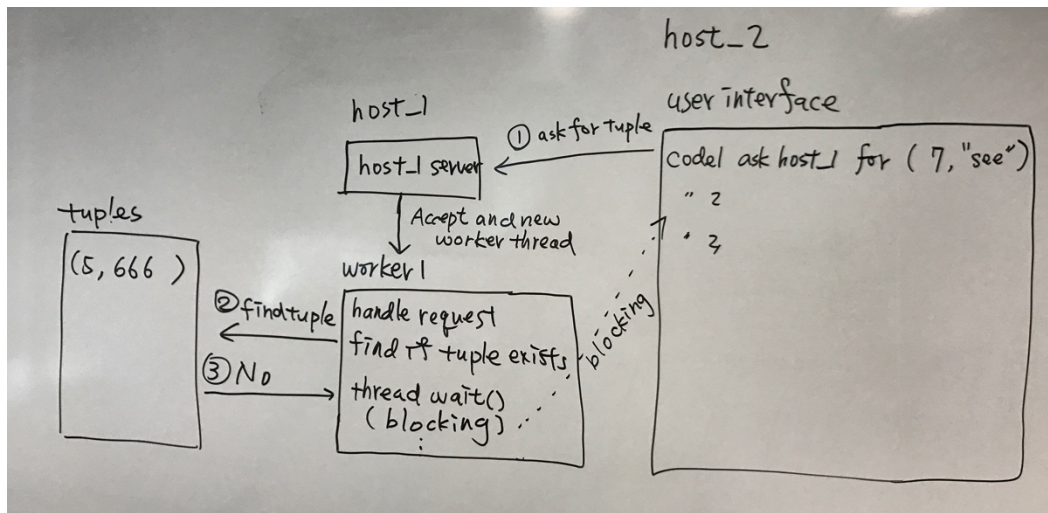


# Blocking or non-blocking

Add operation won't be blocked.

OUT operation won't be blocked.

IN operation will be blocked.



This is how to unblock.

# What is tuples looks like?

In txt file

```
Data type value Data type value Data type value
Data type value Data type value
Data type value Data type value Data type value Data type value
Data type value
...
```

Or you can use JSON

```
{
  [Data type:value Data, Data type:value Data, Data type:value Data],
  [Data type:value Data, Data type:value Data],
  [Data type:value Data],
  [Data type:value Data, Data type:value Data, Data type:value Data, ]
}
```