Test1: Multiple publishers and subscribers work concurrently
Command: **pubsub pub send -t [topic] -p [publication]**
1. You need to register pub/sub firstly
2. If a publisher publish a message with a new topic, instead of its initial topic,
   broker will assign a random ownership strength for the publisher on this topic.
   In some cases, if the publisher gets the highest ownership strength on this topic,
   previous publisher who had highest ownership strength on this topic
   would lose its permission to publish message.

Test2: Failing publishers
Command: **pubsub shutoff/(ctr+C)**
We provide two ways to shutdown a publisher:
1. Soft shutdown: pubsub shutoff
2. Hard shutdown: Interrupt program via keyboard (ctr+C)
After shutdown a publisher, please wait about one minute,
then you can see broker shows this publisher has dead.

Test3: Publisher drops a topic
Command: **pubsub pub -d [topic]**

Test4: Receive history publications
Command: **pubsub sub -r [address] -P [port] -t [topic] -h [requested history samples amount]**
After running subscribers, please wait about 10 seconds, broker will send
history publications to subscriber.
For history publications, the time interval on receipt represents the difference between
publisher publish time and current time.

---Tips:
Get help info:
Command: **pubsub -h**
Get version info:
Command: **pubsub -v**

Examples:

-------------------------Broker-------------------------
python3 PubSub.py
pubsub broker -l 5556 5557

-----------------------Publishers-------------------------
--- Pub1
python3 PubSub.py

```
pubsub pub -r localhost -P 5556 -t name
pubsub pub send -t name -p zhuangwei
pubsub pub send -t name -p manyao
pubsub pub send -t name -p yingqi
pubsub pub send -t name -p minhui

--- Pub2
python3 PubSub.py
pubsub pub -r localhost -P 5556 -t class
pubsub pub send -t class -p Java
pubsub pub send -t class -p Python
pubsub pub send -t class -p Distributed System Principles
pubsub pub send -t class -p Writing Intensive

--- Pub3
python3 PubSub.py
pubsub pub -r localhost -P 5556 -t weather
pubsub pub send -t weather -p cloudy
pubsub pub send -t weather -p sunny
pubsub shutoff

--- Pub4
python3 PubSub.py
pubsub pub -r localhost -P 5556 -t name
pubsub pub send -t name -p kang
pubsub pub send -t name -p peng
pubsub pub send -t name -p li
pubsub pub send -t name -p zhou
! You interrupt program through keyboard

--- Pub5
python3 PubSub.py
pubsub pub -r localhost -P 5556 -t foods
pubsub pub send -t foods -p pizza
pubsub pub send -t foods -p noodles
pubsub pub send -t foods -p chicken
pubsub -d foods

----------------------Subscribers-------------------------
--- Sub1
python3 PubSub.py
pubsub sub -r localhost -P 5557 -t name -h 10

--- Sub2
```

```
python3 PubSub.py
pubsub sub -r localhost -P 5557 -t class -h 5

--- Sub3
python3 PubSub.py
pubsub sub -r localhost -P 5557 -t foods -h 3
```