# READ ME / HOW TO

**Included Files:**

1. portfowarder.py – the multithreaded port forwarding code that runs through python
2. server.py – the edge server that responds to the client that is connected
3. client.py – the multithreaded client that messages the server
4. config.txt – the configuration file that has the IP/Ports to create a connection

**Requirements:**

* 3 machines
  + A machine to be the server
  + A machine to be the client
  + A machine to be the port forwarder
* All the machines need python installed in order to have this working
* All the machines need to be on the same subnet
* Machines have to be setup in an order

1. Server
2. Port Forwarder
3. Client

**Server.py**

1. Extract the server.py file to a location on the machine #1
2. Open a terminal
3. Change directory to the location of the file server.py
4. Run the command ‘python server.py’
5. A GUI should pop up
6. Enter Information into the text box
   1. IP of the server machine
   2. Port for the server to listen
7. Press the Start button
8. Terminal should now display a message that it is listening to port

**Portfoward.py & config.txt**

1. Extract the portforward.py and config.txt file to a location on the machine #2
2. Configure the config.txt file
   1. Each line is a connection
   2. To add a connection
      1. Format ‘Machine1IP:Port,Machine2IP:Port’
3. Open a terminal
4. Change directory to the location of the file portforward.py
5. Run the command ‘python portforward.py’
6. A GUI should pop up
7. Enter information into the text box
   1. IP of the portforwarding machine
8. Press the start button
9. In the terminal, there should be a message display “listening to port … “

**Client.py**

1. Extract the Client.py file to a location on the machine #3
2. Open a terminal
3. Change directory to the location of the file server.py
4. Run the command ‘python Client.py’
5. A GUI should pop up
6. Enter Information into the text box
   1. IP of the portforward machine
   2. Port you want to send to
   3. Number of clients
   4. Number of messages
   5. Message you want to send
7. Press the Start button
8. Messages should be sent and received if setup was done properly