

COMP 7005

Assignment 2

Testing

Winston Nguyen
A01297231
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Test 1	3
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Test 5	4
Test 6	4
Test 7	5
Test 8	5
Test 9	6

Test	Expected	Actual	Screenshot
No arguments	fail	fail	Test 1
Too many arguments	fail	fail	Test 2
Invalid IPv4/IPv6 address	fail	fail	Test 3
Wrong server IPv4/IPv6	fail	fail	Test 4
Empty file	fail	fail	Test 5
Missing file	fail	fail	Test 6
File with only spaces	pass	pass	Test 7
Valid file with limited characters	pass	pass	Test 8
Valid big file	pass	pass	Test 9
Sending data via IPv6 address	pass	pass	Test 10
Sending data from a different system	pass	pass	Test 11
Sending multiple connections concurrently via threads	pass	pass	Test 12

Tests

Test 1

```
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets$ python3 ./source/client.py
Error: Invalid number of arguments
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets$
```

Test 2

```
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets$ python3 ./source/client.py test.txt 0.0.0.0 extra
Error: Invalid number of arguments
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets$
```

Test 3

```
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets
wonton@wonton-IdeaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$ python3 ./source/client.py test.txt notAnAddress
Error: Invalid IP Address found.
wonton@wonton-IdeaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$
```

Test 4

```
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets
wonton@wonton-IdeaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$ python3 ./source/client.py test.txt 100.100.100.100
Error: Failed to connect to socket
wonton@wonton-IdeaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$
```

Test 5

```
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets
wonton@wonton-IdeaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$ python3 ./source/client.py test.txt 10.0.0.34
Error: File is empty.
wonton@wonton-IdeaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$
```

Test 6

```
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets
wonton@wonton-IdeaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$ python3 ./source/client.py missing.txt 10.0.0.34
Error: File 'missing.txt' not found.
wonton@wonton-IdeaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$
```

Test 7

```
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets
wonton@wonton-IdeaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$ python3 ./source/client.py test.txt 10.0.0.34
Received response
Word Count: 0
Character Count: 0
Character Frequencies:
wonton@wonton-IdeaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$
```

Test 8

```
wonton@wonton-ideaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets  ×
wonton@wonton-ideaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets  ×
wonton@wonton-ideaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$ python3 ./source/client.py test.txt 10.0.0.34
Received response
Word Count: 20
Character Count: 21
Character Frequencies:
0: 1
1: 2
2: 1
3: 1
4: 1
5: 1
6: 1
7: 1
8: 1
9: 1
a: 1
b: 1
c: 1
d: 1
e: 1
f: 1
g: 1
h: 1
i: 1
j: 1
wonton@wonton-ideaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$
```

Test 9

```
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets$ python3 ./source/client.py guten.txt 10.0.0.34
Received response
Word Count: 736603
Character Count: 3312659
Character Frequencies:
: 3
!: 5910
#: 1
&: 36
(: 174
): 174
*: 6
,: 71803
-: 2837
.: 70604
0: 29
1: 126
2: 64
3: 41
4: 40
5: 32
6: 27
7: 26
8: 28
9: 28
:: 2403
;: 9323
?: 8816
[: 3290
]: 3288
_: 7376
a: 237705
b: 49418
c: 71637
```

Test 10

```
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets$ python3 ./source/client.py test.txt 2604:3d08:597e:ef00:a21d:8635:3d84:d9d1
Received response
Word Count: 20
Character Count: 21
Character Frequencies:
0: 1
1: 2
2: 1
3: 1
4: 1
5: 1
6: 1
7: 1
8: 1
9: 1
a: 1
b: 1
c: 1
d: 1
e: 1
f: 1
g: 1
h: 1
i: 1
j: 1
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets$
```

Test 11

```
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets
wonton@wonton-IdeaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$ python3 ./source/server.py
Server running on dual-stack mode (IPv4 and IPv6).
Server is listening on port 8080 for incoming connections...
Connection Received: ('::ffff:192.168.250.18', 35292, 0, 0)
Connection Received: ('::ffff:192.168.250.18', 35306, 0, 0)
Connection Received: ('::ffff:192.168.250.18', 35316, 0, 0)
Connection Received: ('::ffff:192.168.250.18', 35328, 0, 0)
Connection Received: ('::ffff:192.168.250.18', 35334, 0, 0)
Connection Received: ('::ffff:192.168.250.174', 53436, 0, 0)
```

Test 12

```
wonton@wonton-IdeaPad-Slim-7-14ITL05: ~/work/comp7005/Assignment 2: Network Sockets
wonton@wonton-IdeaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$ python3 ./source/thread_client.py 192.168.250.18
Received response
Word Count: 1
Character Count: 1
Character Frequencies:
1: 1

Received response
Word Count: 1
Character Count: 1
Character Frequencies:
2: 1

Received response
Word Count: 1
Character Count: 1
Character Frequencies:
3: 1

Received response
Word Count: 1
Character Count: 1
Character Frequencies:
4: 1

Received response
Word Count: 1
Character Count: 1
Character Frequencies:
5: 1

wonton@wonton-IdeaPad-Slim-7-14ITL05:~/work/comp7005/Assignment 2: Network Sockets$
```