

電腦網路導論 HW2 Report

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1.

(a) result on local

```
chhiilnos@chhiilnos-X556UR:~/Desktop/HW2$ python3 socket_client.py
connected to 127.0.0.1
Receive server message:
Welcome to HW2 P1 Local Server. Please give me your identity. What's your name?
tina
Receive server message:
What's your student ID?
b03901070
Receive server message:
What's your favorite food?
noodles
Receive server message:
Hi tina, your student id is B03901070. And you love noodles. Is it correct? (Y/N)
y
Receive server message:
Thanks. Your response has been recorded. Please remeber to print-screen this execution, and have a nice day! (Session End)
```

(b) result on 140.112.42.108:12345 : cannot connect?

```
chhiilnos@chhiilnos-X556UR:~/Desktop/HW2/src_P1$ python3 socket_client.py
```

Use my friend's work station instead :

```
~/Desktop chhiilnos@testserv_ml
I > python3 socket_server.py
The Grading server for HW2 is running..
('140.112.238.217', 19485) connected
Welcome to HW2 P1 Local Server. Please give me your identity. What's your name?

Send server message:
What's your student ID?

Send server message:
What's your favorite food?

Send server message:
Hi {}, your student id is {}. And you love {}. Is it correct? (Y/N)

Send server message:
tina B03901070 fruits Y
Send server message:
```

```
chhiilnos@chhiilnos-X556UR:~/Desktop/HW2/src_P1$ python3 socket_client.py
connected to 59.124.162.92
Receive server message:
Welcome to HW2 P1 Local Server. Please give me your identity. What's your name?
tina
Receive server message:
What's your student ID?
b03901070
Receive server message:
What's your favorite food?
fruits
Receive server message:
Hi tina, your student id is B03901070. And you love fruits. Is it correct? (Y/N)
y
Receive server message:
Thanks. Your response has been recorded. Please remeber to print-screen this execution, and have a nice day! (Session End)
```

2.

(a) local machine

The experiment contain two files : udp_server.py and udp_client.py

Execution :

(1)Change both ip address and port to that of the server udp_server.py & udp_client.py

(2)On server machine, run python3 udp_server.py

(3)On client machine, run python3 udp_client.py

(4)Wait for about 2 minutes and get the result on the server machine

Explanation :

udp_client.py : Sends 10300 packages to server, the content of the package is its index (starts from 0).

udp_server.py : Receive package and count if the content of the package >9999, and print the number of packages (out of 10000) it receives at the end.

```
chhilnos@chhilnos-X556UR:~/Desktop/HW2$ python3 udp_server.py
UDP server is ready
10000 :break
9997/10000 were received
chhilnos@chhilnos-X556UR:~/Desktop/HW2$ python3 udp_server.py
UDP server is ready
10000 :break
9999/10000 were received
chhilnos@chhilnos-X556UR:~/Desktop/HW2$ python3 udp_server.py
UDP server is ready
10000 :break
10000/10000 were received
```

(b)

(1) Local Machine(Wifi) to the machine that is right beside it(Wifi)

```
Press ENTER or type command to continue
UDP server is ready
10000 :break
9997/10000 were received
python udp_server.py 0.37s user 0.16s system 0% cpu 1:46.79 total

Press ENTER or type command to continue
UDP server is ready
10000 :break
10000/10000 were received
python udp_server.py 0.38s user 0.15s system 0% cpu 1:46.14 total

Press ENTER or type command to continue
UDP server is ready
10000 :break
10000/10000 were received
python udp_server.py 0.37s user 0.14s system 0% cpu 1:44.40 total
```

(2) Taipei 台灣大學博理館(Wifi) to 新竹竹北(Ethernet)

```
I > python3 udp_server.py
UDP server is ready
10000 :break
10000/10000 were received

~/Desktop chhiilnos@testserv_ml 1m 47s
I > python3 udp_server.py
UDP server is ready
10000 :break
9997/10000 were received

~/Desktop chhiilnos@testserv_ml 1m 47s
I > python3 udp_server.py
UDP server is ready
10000 :break
10000/10000 were received
```

(3) Taipei 台灣大學女生第五宿舍 (Ethernet) to 香港將軍澳 (Wifi)

```
chhiilnos@chhiilnos-X556UR:~/Desktop/HW2/src_P2$ python3 udp_server.py
UDP server is ready
10000 :break
9862/10000 were received
chhiilnos@chhiilnos-X556UR:~/Desktop/HW2/src_P2$ python3 udp_server.py
UDP server is ready
10000 :break
9853/10000 were received
chhiilnos@chhiilnos-X556UR:~/Desktop/HW2/src_P2$ python3 udp_server.py
UDP server is ready
10000 :break
9869/10000 were received
```



(4) Taipei 台灣大學女生第五宿舍 (Ethernet) to 法國巴黎 (Wifi)

```
chhiilnos@chhiilnos-X556UR:~/Desktop/HW2/src_P2$ python3 udp_server.py
UDP server is ready
10000 :break
9992/10000 were received
chhiilnos@chhiilnos-X556UR:~/Desktop/HW2/src_P2$ python3 udp_server.py
UDP server is ready
10000 :break
9997/10000 were received
chhiilnos@chhiilnos-X556UR:~/Desktop/HW2/src_P2$ python3 udp_server.py
UDP server is ready
10000 :break
9996/10000 were received
```

3.

(a)

```
chhiilnos@chhiilnos-X556UR:~/Desktop/HW2/src_P3_a$ python http_server.py
Serving HTTP on 127.0.0.1 port 8000 ...
127.0.0.1 - - [15/Apr/2018 00:03:50] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [15/Apr/2018 00:03:51] "GET /tina.html HTTP/1.1" 200 -
^CTraceback (most recent call last):
  File "http_server.py", line 21, in <module>
    httpd.serve_forever()
  File "/usr/lib/python2.7/SocketServer.py", line 231, in serve_forever
    poll_interval)
  File "/usr/lib/python2.7/SocketServer.py", line 150, in _eintr_retry
    return func(*args)
KeyboardInterrupt
```

← → C ⓘ 127.0.0.1:8000/tina.html

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(b)

I did part of proxy_server.py ... not done.

But my http_server.py can serve for the same purpose.

```
chhiilnos@chhiilnos-X556UR:~/Desktop/HW2/src_P3_b$ python http_server.py
Serving HTTP on 127.0.0.1 port 8000 ...
127.0.0.1 - - [15/Apr/2018 18:03:18] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [15/Apr/2018 18:03:18] code 404, message File not found
127.0.0.1 - - [15/Apr/2018 18:03:18] "GET /favicon.ico HTTP/1.1" 404 -
127.0.0.1 - - [15/Apr/2018 18:03:25] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [15/Apr/2018 18:03:30] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [15/Apr/2018 18:03:34] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [15/Apr/2018 18:03:38] "GET /http_server.py HTTP/1.1" 200 -
127.0.0.1 - - [15/Apr/2018 18:04:13] "GET /http_server.py HTTP/1.1" 200 -
127.0.0.1 - - [15/Apr/2018 18:04:15] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [15/Apr/2018 18:04:17] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [15/Apr/2018 18:04:19] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [15/Apr/2018 18:04:23] "GET /http_server.py HTTP/1.1" 200 -
127.0.0.1 - - [15/Apr/2018 18:04:26] "GET /tina.html HTTP/1.1" 200 -
```

HTML webserver - Google Chrome

Directory listing for × Directory listing for × Directory listing for × This is a HTML webs ×

← → C ⓘ 127.0.0.1:8000/tina.html

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