

523454

Computer Network Programming

Lab 3: TCP connections with select()

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Checkpoint

■ TCP server with select()

- รับ connect จาก client มากกว่า 1 client ในช่วงเวลาเดียวกันได้
- เมื่อได้รับ message จะตอบ ACK กลับไป

■ TCP clients

- 2 clients สามารถส่ง message ขณะเดียวกันได้
- Client ปิด socket ได้จากการส่ง string ว่า close

Lab2 without select()

```
(kali㉿kali)-[~/lab_netPro/my_lab/lab3/test]
$ ./server_no
Configuring local address ...
Creating socket ...
Binding socket to local address ...
Listening ...
Waiting for connection ...
Received request from a new client ...
String received from the client: Client A
String received from the client: Ready
```

```
(kali㉿kali)-[~/lab_netPro/my_lab/lab3/test]
$ ./client_no
Configuring remote address ...
Server address is: 127.0.0.1
Port is: 7777
Creating socket ...
Connected.
Client A
String: Ready
String: █
```

```
(kali㉿kali)-[~/lab_netPro/my_lab/lab3/test]
$ ./client_no
Configuring remote address ...
Server address is: 127.0.0.1
Port is: 7777
Creating socket ...
Connected.
Client B
String: Ready
String: █
```

Lab3's Results (using select())

```
(kali㉿kali)-[~/lab_netPro/my_lab/lab3]
$ ./server
Configuring local address ...
Creating socket ...
Binding socket to local address ...
Listening ...
Waiting for connection ...
[ ...Received request from a new client... ]
New connection from 127.0.0.1
Msg received from the client (Socket = 4): Client A
Msg received from the client (Socket = 4): Ready for sending
[ ...Received request from a new client... ]
New connection from 127.0.0.1
Msg received from the client (Socket = 5): Client B
Msg received from the client (Socket = 5): Ready for sending
Msg received from the client (Socket = 4): close
Closing this socket client (Socket = 4)
Msg received from the client (Socket = 5): close
Closing this socket client (Socket = 5)
```

```
(kali㉿kali)-[~/lab_netPro/my_lab/lab3/test]
$ ./client ~/lab_netPro/my_lab/lab3
Configuring remote address ...
Server address is: 127.0.0.1
Port is: 7777
Creating socket ...
Connected.
Sending from me: Client A
Receiving from server: ACK from Server
Sending from me: Ready for sending
Receiving from server: ACK from Server
Sending from me: close
Receiving from server:
Sending from me:
```

```
(kali㉿kali)-[~/lab_netPro/my_lab/lab3]
$ ./client
Configuring remote address ...
Server address is: 127.0.0.1
Port is: 7777
Creating socket ...
Connected.
Sending from me: Client B
Receiving from server: ACK from Server
Sending from me: Ready for sending
Receiving from server: ACK from Server
Sending from me: close
Receiving from server:
Sending from me: test
Receiving from server:
Sending from me: test
```