

Báo cáo Week 11 - Thực hành Lập trình mạng - Kỳ 2025.1

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Github: https://github.com/nammannam/IT4062_Network_Programming

File account.txt:

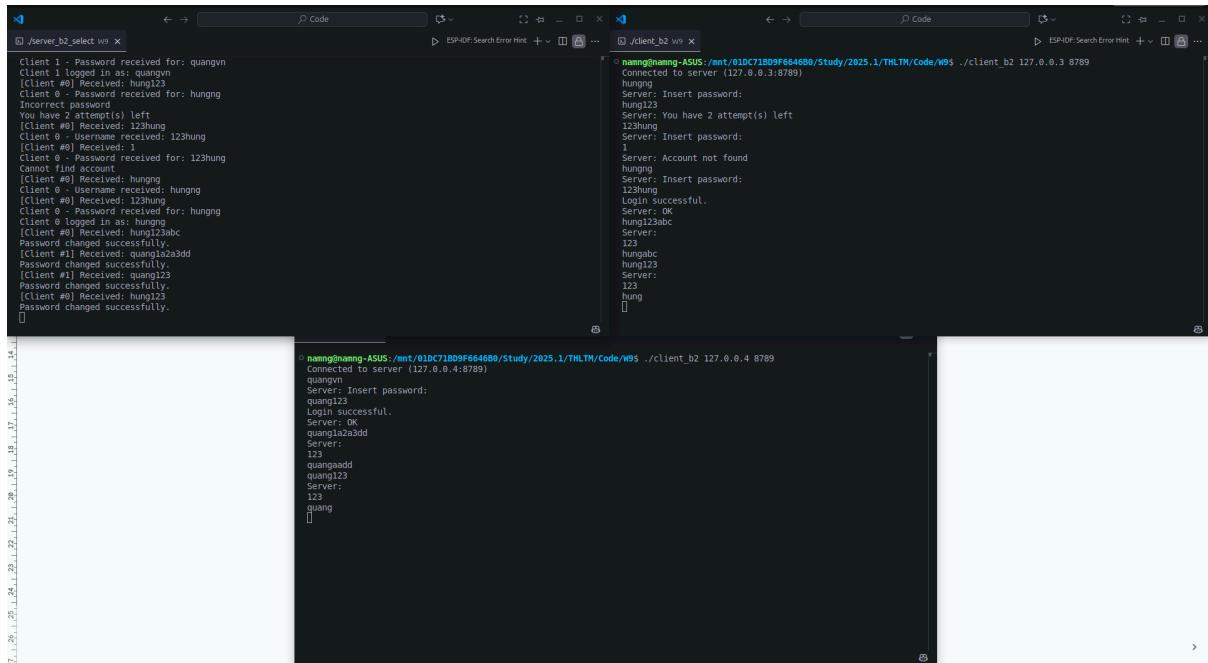


```
cat account.txt
1 admin admin123 admin@gmail.com google.com 0
2 namk namnk123 namnk@gmail.com youtube.com 0
3 hungng 123hung hungng@hust.edu soict.hust.edu.vn 1
4 locdinh loc2004 123@gmail.com daotao.ai 0
5 quangvn quang123 quangvn22@gmail.com youtube.com 1
6 test2 test123 test2new@gmail.com youtube.com 1
```

Kết quả: Mô hình 1 Server -2 Clients

A. select()

- Login + Đổi mật khẩu



The screenshot shows three terminal windows. The top-left window is titled 'server_b2_select w9' and shows the server's log output. The top-right window is titled 'client_b2 w9' and shows the first client's log output. The bottom window is also titled 'client_b2 w9' and shows the second client's log output. All three clients are successfully logging in and changing their passwords.

```
server_b2 Select w9
Client 1 - Password received for: quangvn
[Client #0] Received: hung123
Client 0 - Password received for: hungng
[Client #1] Received: hungng
You have 2 attempt(s) left
[Client #0] Received: 123hung
[Client #0] Username received: 123hung
[Client #0] Received: hungng
Client 0 - Password received for: 123hung
Cannot find account
[Client #0] Received: hungng
[Client #0] Username received: hungng
[Client #0] Received: 123hung
Client 0 - Password received for: hungng
Client 0 logged in as: hungng
[Client #0] Received: hung123abc
Password changed successfully.
[Client #1] Received: quang1a2a3dd
Password changed successfully.
[Client #0] Received: hung123
Password changed successfully.
[Client #0] Received: hung123
Password changed successfully.

client_b2 w9
namng@namp-ASUS:/mnt/01DC71BD9F6646B0/Stud... ./client_b2 127.0.0.3 8789
Connected to server (127.0.0.3:8789)
hungng
Server: Insert password:
hungng
Server: You have 2 attempt(s) left
123hung
Server: Insert password:
1
Server: Account not found
hungng
Server: Insert password:
123hung
Login successful.
Server: OK
hung123abc
Server:
123
hungabc
hung123
Server:
123
hung
hung

client_b2 w9
namng@namp-ASUS:/mnt/01DC71BD9F6646B0/Stud... ./client_b2 127.0.0.4 8789
Connected to server (127.0.0.4:8789)
quangvn
Server: Insert password:
quang1a2a3dd
Login successful.
Server: OK
quang1a2a3dd
Server:
123
quangadd
quang123
Server:
123
quang
```

- Sai mật khẩu + Bị block

The screenshot shows two terminal windows. The left window is titled 'server_b2_select w9' and the right window is titled 'client_b2 w9'. Both windows are running on the same machine ('namng@namn - ASUS'). The server window shows a log of a connection attempt from 'Client 1' (IP 127.0.0.1) with a password of 'test'. The server rejects the password, indicating 'Incorrect password'. It also notes that the user has 2 attempts left. The client window shows the user attempting to log in with 'hung123' and 'hung'. The server rejects both attempts, indicating 'Account is blocked due to 3 failed login attempts'.

The screenshot shows a terminal window with the title 'account.txt'. The file contains a list of users and their details:

User	Username	Email	Website	Status
1	admin	admin@gmail.com	google.com	0
2	namnk	namnk123@gmail.com	youtube.com	0
3	hungng	hungng@hust.edu.vn	soict.hust.edu.vn	1
4	locdinh	loc2004@gmail.com	daotao.ai	0
5	quangvn	quangvn22@gmail.com	youtube.com	1
6	test2	test2new@gmail.com	youtube.com	0
7				+

The screenshot shows two terminal windows from the ESP-IDF environment. The top window is titled 'ESP-IDF: Search En...' and displays the output of the server application ('./server_b2_select w9'). The bottom window is also titled 'ESP-IDF: Search En...' and displays the output of the client application ('./client_b2 w9'). Both windows show a series of text messages indicating password attempts and account status.

```
[Client #1] Received: test
Client 1 - Password received for: test2
Incorrect password
You have 2 attempt(s) left
[Client #1] Received: test2
Client 1 - Username received: test2
[Client #1] Received: test
Client 1 - Password received for: test2
Incorrect password
You have 1 attempt(s) left
[Client #1] Received: test2
Client 1 - Username received: test2
[Client #1] Received: test
Client 1 - Password received for: test2
Incorrect password
Account is blocked due to 3 failed login attempts
[Client #0] Received: hung@123
[Client #0] Received: hung@@@12@
[Client #0] Received: hung12@
[Client #1] Received: test2
Client 1 - Username received: test2
[Client #1] Received: test123
Client 1 - Password received for: test2
Account is blocked
```



```
namng@namng-ASUS:/mnt/01DC71BD9F6646B0/Study/2025.1/THLTM/Code/W9$ ./client_b2 127.0.0.4 8789
Connected to server (127.0.0.4:8789)
test2
Server: Insert password:
test
Server: You have 2 attempt(s) left
test2
Server: Insert password:
test
Server: You have 1 attempt(s) left
test2
Server: Insert password:
test
Server: Account is blocked due to 3 failed login attempts
test2
Server: Insert password:
test123
Server: Account is blocked
```

- Sai format mật khẩu mới:

```

Client #1 disconnected
New connection from 127.0.0.1:60418 (Client #1, Total: 2)
Client 1 - Username received: test2
Client 1 - Password received: test2
Client 1 - Received: test2
Client 1 - Password received for: test2
Incorrect password
You have 2 attempt(s) left
[Client #1] Received: test2
Client 1 - Username received: test2
[Client #1] Received: test
Client 1 - Password received for: test2
Incorrect password
You have 1 attempt(s) left
[Client #1] Received: test2
Client 1 - Username received: test2
[Client #1] Received: test
Client 1 - Password received for: test2
Incorrect password
Account is blocked due to 3 failed login attempts
[Client #0] Received: hung123
[Client #0] Received: hung123@0
[Client #0] Received: hung123@0

```

B. poll()

- Đăng nhập + Đổi mật khẩu + Đổi mật khẩu lỗi:

```

Server is listening on port 8787...
Using poll() for I/O multiplexing
Max clients: 100
Client 0 added (127.0.0.1:40430) - Total clients: 1
Client 1 added (127.0.0.1:40431) - Total clients: 2
Password changed successfully.
Password changed successfully.
Password changed successfully.

```

```

Connected to server (127.0.0.4:8787)
hung123
Server: Insert password
quang123
Login successful.
Server: OK
quangsd@0344
Server:
1234344
quangsd
hung123
Server:
123
hung
hung123@0
Server: Error

```

- Đăng xuất:

```
namng@namng-ASUS:/mnt/01DC71BD9F664680/Study/2025.1/THLTM/Code/W95 ./server_b2_poll 8787
Server is listening on port 8787...
Using poll() for I/O multiplexing
Max clients: 100
Client 0 added (127.0.0.1:40430) - Total clients: 1
Client 1 added (127.0.0.1:36852) - Total clients: 2
Password changed successfully.
Password changed successfully.
Password changed successfully.
Password changed successfully.
User hunging signed out successfully.
User quangvn signed out successfully.
[]

namng@namng-ASUS:/mnt/01DC71BD9F664680/Study/2025.1/THLTM/Code/W95 ./client_b2 127.0.0.4 8787
Connected to server (127.0.0.4:8787)
quangvn
Server: Insert password
hung123
Login successful.
Server: OK
hung12a2a3
Server:
123
hungaa
hung123
Server:
123
hung
quang12a@
Server: Error
bye
Server: Goodbye
[]

namng@namng-ASUS:/mnt/01DC71BD9F664680/Study/2025.1/THLTM/Code/W95 ./client_b2 127.0.0.4 8787
Connected to server (127.0.0.4:8787)
quangvn
Server: Insert password
hung123
Login successful.
Server: OK
hung12a2a3
Server:
123
hungaa
hung123
Server:
123
hung
quang12a@
Server: Error
bye
Server: Goodbye
[]
```

- Khóa tài khoản nhập sai mật khẩu quá 3 lần:

```
Administrator:~ % ./server_b2_poll ws <---- Server 1
[...]
namen@namen-ASUS:~/ent_01DC71B09F66468B/Study/2025.1/THLTN/Code/W05 ./server_b2_poll 8787
Server is listening on port 8787...
Using poll() for I/O multiplexing
Max clients: 100
Client 0 added (127.0.0.1:49550) - Total clients: 1
Client 1 added (127.0.0.1:36852) - Total clients: 2
Password changed successfully.
Password changed successfully.
User hungin signed out successfully.
User hungin signed out successfully.
User quang123 signed out successfully.
Client 1 disconnected (127.0.0.1:36852)
Client 0 disconnected (127.0.0.1:36850) - Total clients: 2
Client 1 disconnected (127.0.0.1:58898)
Incorrect password
You have 2 attempt(s) left
Incorrect password
You have 1 attempt(s) left
Incorrect password
Account blocked after 3 failed attempts
Administrator:~ % ./client_b2_wx <---- Server 2
[...]
Connected to server (127.0.0.4:8787)
quang123
Login successful.
Server: OK
quang123d4344
Server: 1234544
quang123
hung123
Server: 123
hung
hung12300
Server: Error
bye
Server: Goodbye
hunging
Server: Insert password
123
Server: Not OK
hunging
Server: Not OK
123
Server: Account is blocked
```

```
Ξ account.txt ✘ C server_b2_poll.c ⓘ ⚡ Lec09.IOMultiplexing_linhdt_2025.pdf ⚡ C server_b2_select.c  
W9 > Ξ account.txt  
1 admin admin123 admin@gmail.com google.com 0  
2 namnk namnk123 namnk@gmail.com youtube.com 0  
3 hungng hung123 hungng@hust.edu soict.hust.edu.vn 0  
4 locdinh loc2004 123@gmail.com daotao.ai 0  
5 quangvn hung123 quangvn22@gmail.com youtube.com 1  
6 test2 test123 test2new@gmail.com youtube.com 0  
7
```