

## LAB 4

เข้าไปเปลี่ยน hosts / hostname ใหม่

sudo nano etc/hosts

sudo nano etc/hostname

```
GNU nano 6.2 /etc/hosts
127.0.0.1 localhost
127.0.1.1 webserver018

# The following lines are desirable for IPv6 capable hosts
::1 ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

```
GNU nano 6.2 /etc/hostname
webserver018
```

```
GNU nano 6.2 /etc/hosts
127.0.0.1 localhost
127.0.1.1 backend018

# The following lines are desirable for IPv6 capable hosts
::1 ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

```
GNU nano 6.2 /etc/hostname
backend018
```

ทำการติดตั้ง Nodejs และตรวจสอบเวอร์ชัน

```
devuser@webserver018:~$ node -v
v20.10.0
devuser@webserver018:~$ npm -v
10.2.3
devuser@webserver018:~$
```

อนุญาตให้ PORT3000 สามารถใช้งานได้  
sudo ufw allow 3000

```
devuser@webserver018:~$ sudo ufw status
Status: active

To Action From
--
OpenSSH ALLOW Anywhere
Apache ALLOW Anywhere
Nginx Full ALLOW Anywhere
3333 ALLOW Anywhere
3000 ALLOW Anywhere
3001 ALLOW Anywhere
3002 ALLOW Anywhere
3306/tcp ALLOW Anywhere
3003 ALLOW Anywhere
OpenSSH (v6) ALLOW Anywhere (v6)
Apache (v6) ALLOW Anywhere (v6)
Nginx Full (v6) ALLOW Anywhere (v6)
3333 (v6) ALLOW Anywhere (v6)
3000 (v6) ALLOW Anywhere (v6)
3001 (v6) ALLOW Anywhere (v6)
3002 (v6) ALLOW Anywhere (v6)
3306/tcp (v6) ALLOW Anywhere (v6)
3003 (v6) ALLOW Anywhere (v6)

devuser@webserver018:~$
```

สร้าง Database (เพิ่มไปก่อนหน้านี้แล้ว)

```
mysql> CREATE TABLE IF NOT EXISTS `accounts` (
  -> `id` int(11) NOT NULL AUTO_INCREMENT INTO `accounts` (`id`, `username`, `password`, `email`) VALUES
  (1, 'test', 'test', 'test@test.com');CREMENT,
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL s
erver version for the right syntax to use near 'AUTO_INCREMENT INTO `accounts` (`id`, `username`, `password`
, `email`) VALUES (1,' at line 2
  -> `username` varchar(50) NOT NULL,
  -> `password` varchar(255) NOT NULL,
  -> `email` varchar(100) NOT NULL,
  -> PRIMARY KEY (`id`)
  -> ) ENGINE=InnoDB AUTO_INCREMENT=2 DEFAULT CHARSET=utf8;
```

```
mysql> GRANT ALL ON nodelogin.* TO 'example_user'@'%';
```

```
mysql> ALTER USER 'example_user'@'localhost' IDENTIFIED WITH mysql_native_password BY 'P@ssw0rd@2023';
```

อนุญาตให้User เข้ามาจัดการได้

```
INSERT INTO `accounts` (`id`, `username`, `password`, `email`) VALUES (1, 'test', 'test', 'test@test.com');
```

ใส่ข้อมูลและตรวจสอบ

```
SELECT * FROM accounts;
```

```
mysql> INSERT INTO `accounts` (`id`, `username`, `password`, `email`) VALUES (2, 'test2', 'test2', 'test2@test.com');
Query OK, 1 row affected (0.00 sec)

mysql> SELECT * FROM accounts;
+-----+-----+-----+-----+
| id | username | password | email          |
+-----+-----+-----+-----+
| 1 | test    | test    | test@test.com  |
| 2 | test2   | test2   | test2@test.com |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

mysql> exit
Bye
```

ไปที่โฟลเดอร์ของ Nginx

```
cd /etc/nginx/sites-available/
```

Copy myapp และเปลี่ยนชื่อเป็น nodelogin

```
sudo cp myapp nodelogin
```

```
devuser@webserver018:~$ cd /etc/nginx/sites-available/
devuser@webserver018:/etc/nginx/sites-available$ sudo cp myapp nodelogin
```

แก้ไข server\_name เป็น nodelogin.se-rmutl.net

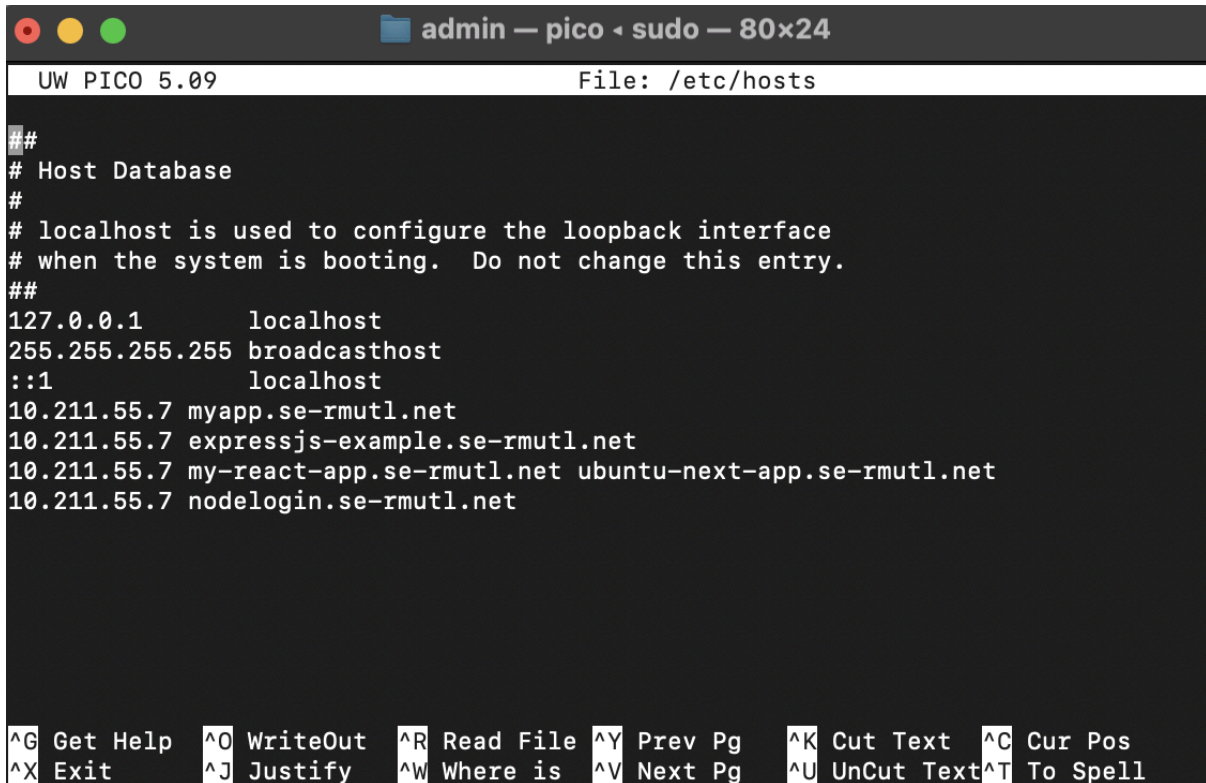
แก้ไข proxy\_pass จาก 3000 ไปเป็น 3003

```
GNU nano 6.2 nodelogin
server {
    listen 80;
    listen [::]:80;
    server_name nodelogin.se-rmutl.net;

    location / {
        proxy_pass http://127.0.0.1:3003; # !!! - change to your app port
        proxy_http_version 1.1;
        proxy_set_header Upgrade $http_upgrade;
        proxy_set_header Connection 'upgrade';
        proxy_set_header Host $host;
        proxy_cache_bypass $http_upgrade;
    }
}
```

เพิ่มโดเมน

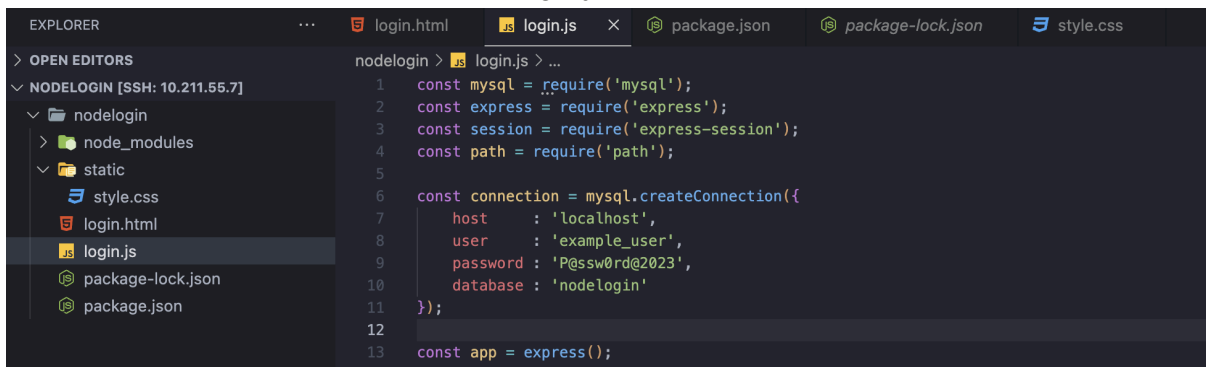
sudo nano /etc/hosts เพิ่ม 10.211.55.7 nodelogin.se-rmutl.net



```
UW PICO 5.09 File: /etc/hosts
###
# Host Database
#
# localhost is used to configure the loopback interface
# when the system is booting. Do not change this entry.
##
127.0.0.1    localhost
255.255.255.255 broadcasthost
::1         localhost
10.211.55.7  myapp.se-rmutl.net
10.211.55.7  expressjs-example.se-rmutl.net
10.211.55.7  my-react-app.se-rmutl.net ubuntu-next-app.se-rmutl.net
10.211.55.7  nodelogin.se-rmutl.net

^G Get Help ^O WriteOut ^R Read File ^Y Prev Pg ^K Cut Text ^C Cur Pos
^X Exit     ^J Justify  ^W Where is ^V Next Pg ^U UnCut Text ^T To Spell
```

Remote ไปที่ Ubuntu ไปที่โฟลเดอร์ lab4/login.js และแก้ไข user & password



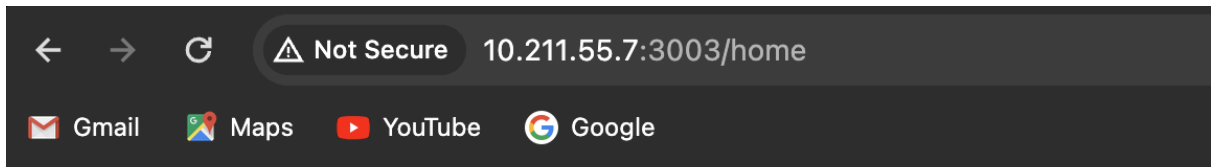
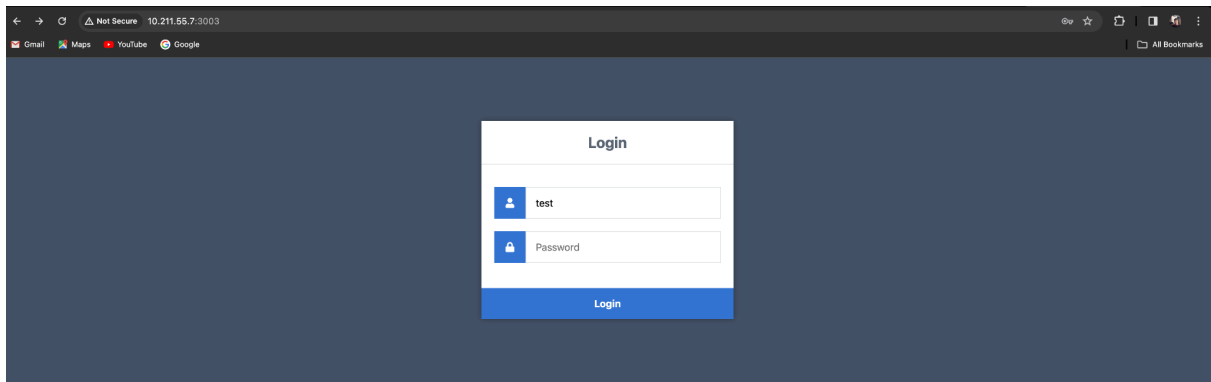
```
EXPLORER login.html login.js package.json package-lock.json style.css
> OPEN EDITORS
NODELOGIN [SSH: 10.211.55.7]
  nodelogin
    node_modules
    static
      style.css
      login.html
      login.js
      package-lock.json
      package.json
nodelogin > login.js > ...
1  const mysql = require('mysql');
2  const express = require('express');
3  const session = require('express-session');
4  const path = require('path');
5
6  const connection = mysql.createConnection({
7    host : 'localhost',
8    user : 'example_user',
9    password : 'P@ssw0rd@2023',
10   database : 'nodelogin'
11 });
12
13 const app = express();
14
```

แก้ไข PORT3000 > 3003 ที่หน้า login.js



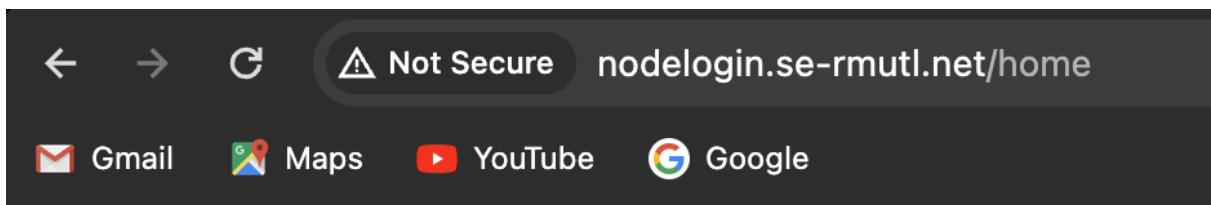
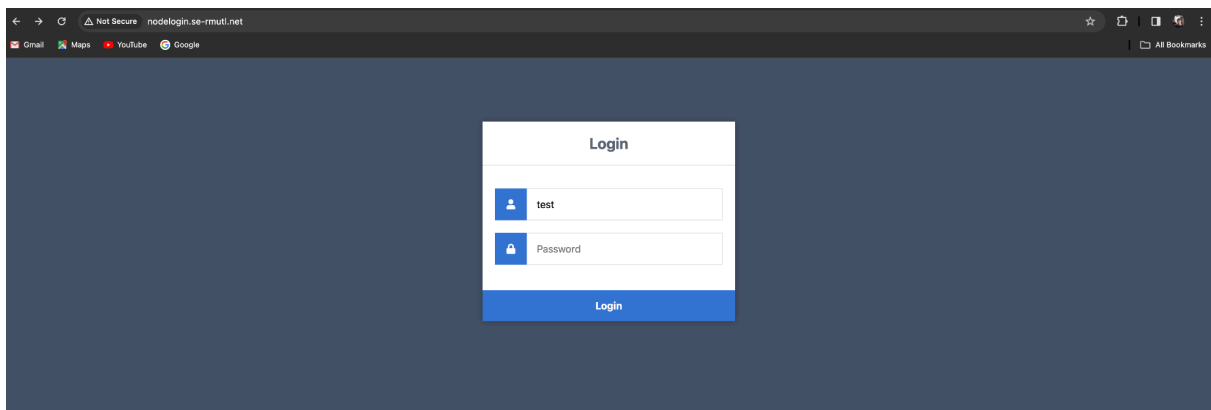
```
app.listen(3003);
```

# 10.211.55.7



Welcome back, test!

# nodelogin.se-rmutl.net

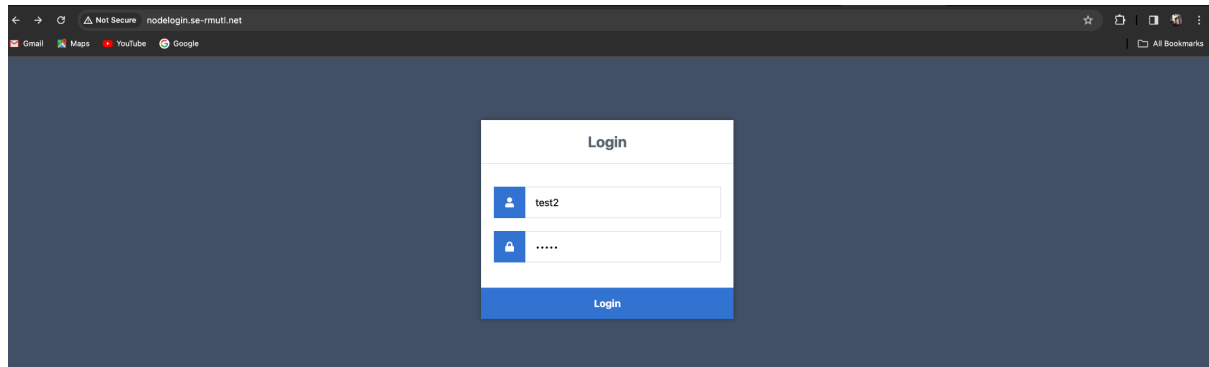


Welcome back, test!

## ลองเพิ่ม user

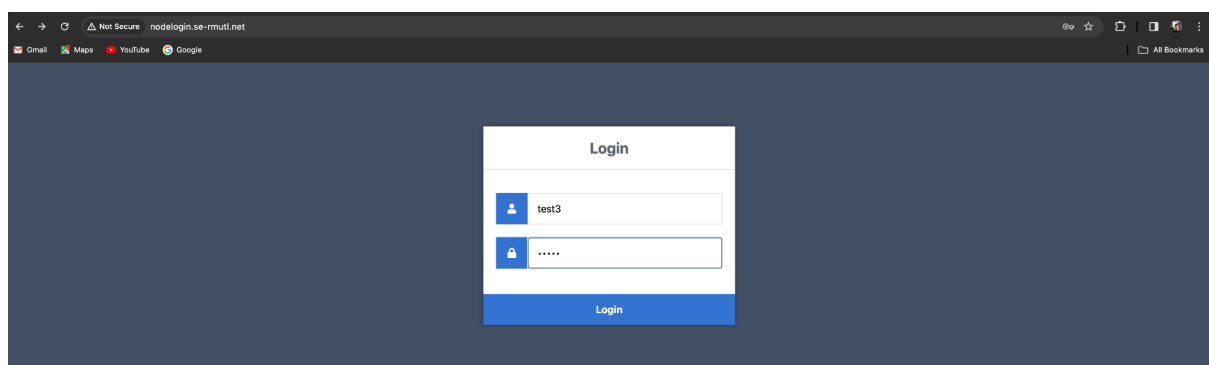
```
INSERT INTO `accounts` (`id`, `username`, `password`, `email`) VALUES (2, 'test2', 'test2', 'test2@test.com');  
INSERT INTO `accounts` (`id`, `username`, `password`, `email`) VALUES (3, 'test3', 'test3', 'test3@test.com');
```

```
Database changed  
mysql> INSERT INTO `accounts` (`id`, `username`, `password`, `email`) VALUES (3, 'test3', 'test3', 'test3@test.com');  
Query OK, 1 row affected (0.01 sec)  
  
mysql> SELECT * FROM accounts;  
+-----+  
| id | username | password | email |  
+-----+  
| 1 | test    | test    | test@test.com |  
| 2 | test2   | test2   | test2@test.com |  
| 3 | test3   | test3   | test3@test.com |  
+-----+  
3 rows in set (0.00 sec)
```



← → ↻ ⚠ Not Secure nodelogin.se-rmutl.net/home  
Gmail Maps YouTube Google

Welcome back, test2!



← → ↻ ⚠ Not Secure nodelogin.se-rmutl.net/home  
Gmail Maps YouTube Google

Welcome back, test3!

## STEP 6.1

สร้างไฟล์ Directory และติดตั้ง React

```
devuser@webserver018:/var/www/lab4/client$ ls
node_modules package.json package-lock.json public README.md src
devuser@webserver018:/var/www/lab4/client$
```

เข้า VScode และแก้ไขไฟล์ App.css , App.js , Index.js



```
App.css × package.json Js App.js
client > src > App.css > input
1  .App {
2    text-align: center;
3  }
4
5  .registration {
6    display: flex;
7    flex-direction: column;
8    justify-content: center;
9    align-items: center;
10 }
11
12 .login {
13   display: flex;
14   flex-direction: column;
15   justify-content: center;
16   align-items: center;
17 }
18 input {
19   width: 250px;
20   height: 40px;
21 }
```

client > src >  App.js >  App

```
1  import React, { useEffect, useState } from "react";
2  import Axios from 'axios';
3  import './App.css';
4  function App() {
5    const [usernameReg, setUsernameReg] = useState("");
6    const [passwordReg, setPasswordReg] = useState("");
7    const [username, setUsername] = useState("");
8    const [password, setPassword] = useState("");
9    const [loginStatus, setLoginStatus] = useState("");
10   const register = () => {
11     Axios.post("http://10.211.55.7:3004/register", {
12       username: usernameReg,
13       password: passwordReg,
14     }).then((response) => {
15       console.log(response);
16
17
18       if (!response.data.err) {
19         setLoginStatus("""+usernameReg + "" was inserted.");
20       } else {
21         setLoginStatus(response.data.err.sqlMessage);
22       }
23
24     });
25   };
26 };
27 const login = () => {
28   Axios.post("http://10.211.55.7:3004/login", {
29     username: username,
30     password: password,
31   }).then((response) => {
32     console.log(response);
33     //console.log("response.data.message: "+response.data[0].message);
34
35
36     if (!response.data.message) {
37       setLoginStatus("""+response.data[0].username + "" was logged in.");
38     } else {
39       setLoginStatus(response.data.message);
40     }
41
42   });
43 };
```



เปลี่ยน PORT=3004

```
1  {
2    "name": "client",
3    "version": "0.1.0",
4    "private": true,
5    "dependencies": {
6      "@testing-library/jest-dom": "^5.17.0",
7      "@testing-library/react": "^13.4.0",
8      "@testing-library/user-event": "^13.5.0",
9      "axios": "^1.6.5",
10     "cors": "^2.8.5",
11     "express": "^4.18.2",
12     "mysql2": "^3.7.0",
13     "react": "^18.2.0",
14     "react-dom": "^18.2.0",
15     "react-scripts": "5.0.1",
16     "web-vitals": "^2.1.4"
17   },
18    Debug
19   "scripts": {
20     "start": "PORT=3004 react-scripts start",
21     "build": "react-scripts build",
22     "test": "react-scripts test",
23     "eject": "react-scripts eject"
24   },
25   "eslintConfig": {
26     "extends": [
27       "react-app",
28       "react-app/jest"
29     ],
30     "browserslist": {
31       "production": [
32         ">0.2%",
33         "not dead",
34         "not op_mini all"
35       ],
36       "development": [
37         "last 1 chrome version",
38         "last 1 firefox version",
39         "last 1 safari version"
40       ]
41     }
42   }
43 }
```

คำสั่งเข้าไปแก้ไขไฟล์ weblogin

```
devuser@webserver018:~$ cd /etc/nginx/sites-available/  
devuser@webserver018:/etc/nginx/sites-available$ ls  
default expressjs-example myapp my-react-app nodelogin ubuntu-next-app weblogin  
devuser@webserver018:/etc/nginx/sites-available$ nano weblogin  
devuser@webserver018:/etc/nginx/sites-available$
```

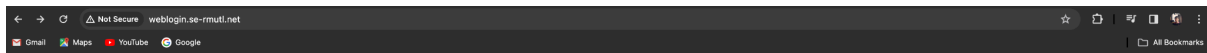
แก้ไข server\_name เป็น weblogin และแก้ไข proxy\_pass เป็น 3004

```
GNU nano 6.2 weblogin  
server {  
    listen 80;  
    listen [::]:80;  
    server_name weblogin.se-rmutl.net;  
  
    location / {  
        proxy_pass http://127.0.0.1:3004; # !!! - change to your app port  
        proxy_http_version 1.1;  
        proxy_set_header Upgrade $http_upgrade;  
        proxy_set_header Connection 'upgrade';  
        proxy_set_header Host $host;  
        proxy_cache_bypass $http_upgrade;  
    }  
}
```

sudo nano /etc/hosts เพื่อเพิ่ม 10.211.55.7 weblogin.se-rmutl.net เข้าไปใน hosts

```
admin — pico — 80x24  
UW PICO 5.09 File: /etc/hosts  
##  
# Host Database  
#  
# localhost is used to configure the loopback interface  
# when the system is booting. Do not change this entry.  
##  
127.0.0.1 localhost  
255.255.255.255 broadcasthost  
::1 localhost  
10.211.55.7 myapp.se-rmutl.net  
10.211.55.7 expressjs-example.se-rmutl.net  
10.211.55.7 my-react-app.se-rmutl.net ubuntu-next-app.se-rmutl.net  
10.211.55.7 nodelogin.se-rmutl.net  
10.211.55.7 weblogin.se-rmutl.net  
  
^G Get Help ^O WriteOut ^R Read File ^Y Prev Pg ^K Cut Text ^C Cur Pos  
^X Exit ^J Justify ^W Where is ^V Next Pg ^U UnCut Text ^T To Spell
```

weblogin.se-rmutl.net



### Registration

Username

password

### Login

Username...

Password...

## STEP 6.2

mkdir server เพื่อสร้างไฟล์ server ขึ้นมา

```
devuser@webserver018:/var/www/lab4$ mkdir server
devuser@webserver018:/var/www/lab4$ cd server
devuser@webserver018:/var/www/lab4/server$ npm init
This utility will walk you through creating a package.json file.
It only covers the most common items, and tries to guess sensible defaults.

See `npm help init` for definitive documentation on these fields
and exactly what they do.

Use `npm install <pkg>` afterwards to install a package and
save it as a dependency in the package.json file.

Press ^C at any time to quit.
package name: (server)
version: (1.0.0)
description:
entry point: (index.js)
test command:
git repository:
keywords:
author:
license: (ISC)
About to write to /var/www/lab4/server/package.json:

{
  "name": "server",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "author": "",
  "license": "ISC"
}
```

ติดตั้ง Middleware

npm install express --save

npm install --save mysql2

npm i --save cors

```
devuser@webserver018:/var/www/lab4/server$ npm install express --save
added 62 packages, and audited 63 packages in 22s

11 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
devuser@webserver018:/var/www/lab4/server$ npm install --save mysql2
added 11 packages, and audited 74 packages in 601ms

11 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
devuser@webserver018:/var/www/lab4/server$ npm i --save cors
added 2 packages, and audited 76 packages in 11s

11 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
```

sudo npm install -g nodemon

```
devuser@webserver018:/var/www/lab4/server$ sudo npm install -g nodemon
[sudo] password for devuser:

changed 33 packages in 1s

3 packages are looking for funding
  run `npm fund` for details
npm notice
npm notice New patch version of npm available! 10.2.3 -> 10.2.5
npm notice Changelog: https://github.com/npm/cli/releases/tag/v10.2.5
npm notice Run npm install -g npm@10.2.5 to update!
npm notice
```

## สร้าง Database ชื่อ loginsystem

```
mysql> CREATE DATABASE IF NOT EXISTS `loginsystem` DEFAULT CHARACTER SET utf8 COLLATE utf8_general_ci;
Query OK, 1 row affected, 2 warnings (0.01 sec)

mysql> USE loginsystem;
Database changed
mysql> CREATE TABLE IF NOT EXISTS `users` (
  ->   `username` varchar(50) NOT NULL,
  ->   `password` varchar(500) NOT NULL,
  ->   PRIMARY KEY (`username`)
  -> ) ENGINE=InnoDB DEFAULT CHARSET=utf8;
Query OK, 0 rows affected, 1 warning (0.02 sec)

mysql> INSERT INTO `users` (`username`, `password`) VALUES ('test', 'test');
Query OK, 1 row affected (0.01 sec)

mysql> select * from users;
+-----+-----+
| username | password |
+-----+-----+
| test     | test     |
+-----+-----+
1 row in set (0.00 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

mysql> ALTER USER 'example_user'@'%' IDENTIFIED WITH mysql_native_password BY 'P@ssw0rd@2023';
Query OK, 0 rows affected (0.00 sec)

mysql> GRANT ALL ON loginsystem.* TO 'example_user'@'%';
Query OK, 0 rows affected (0.00 sec)

mysql> 
```

สร้างไฟล์ index.js ขึ้นมา

```
JS App.js JS index.js ×
server > JS index.js > ...
1  const express = require("express");
2  const mysql = require("mysql2");
3  const cors = require("cors");
4
5
6  const app = express();
7
8
9  const db = mysql.createConnection({
10     host: 'localhost',
11     user: 'example_user',
12     password: 'P@ssw0rd@2023',
13     database: 'loginsystem',
14 });
15
16 app.use(express.json());
17 app.use(
18     cors({
19         origin: ["http://weblogin.se-rmutl.net"],
20         methods: ["GET", "POST"],
21         credentials: true,
22     })
23 );
24
25
26 app.get('/', (req, res) => {
27     console.log("Hello from API");
28 });
29
30
31 app.post('/login', (req, res) => {
32     let username = req.body.username;
33     let password = req.body.password;
34
35
36     console.log("body: " + JSON.stringify(req.body));
37
38
39     console.log("username: "+username);
40     console.log("password: "+password);
41
```

เปิด PORT 4000

```
devuser@webserver018:/var/www/lab4/server$ sudo ufw allow 4000
[sudo] password for devuser:
Rule added
Rule added (v6)
```

ทดสอบ

← → ↻ Not Secure weblogin.se-rmutl.net ☆ 📄 🗨️ 📱 ⋮

Gmail Maps YouTube Google

All Bookmarks

Registration

Username

password

Register

Login

test

\*\*\*

Login

'test' was logged in.

← → ↻ Not Secure weblogin.se-rmutl.net ☆ 📄 🗨️ 📱 ⋮

Gmail Maps YouTube Google

All Bookmarks

Registration

Username

password

Register

Login

Username...

Password...

Login

Wrong username/password comination!

← → ↻ Not Secure weblogin.se-rmutl.net ☆ 📄 🗨️ 📱 ⋮

Gmail Maps YouTube Google

All Bookmarks

Registration

Username

password

Register

Login

Username...

Password...

Login

Duplicate entry '' for key 'users.PRIMARY'

## STEP 7

sudo mkdir server เพื่อสร้างไฟล์ server ขึ้นมา

```
devuser@backend018:/var/www/lab4$ sudo mkdir server
devuser@backend018:/var/www/lab4$ cd server
devuser@backend018:/var/www/lab4/server$ sudo chown -R $USER:$USER /var/www/lab4/server
```

npm init เพื่อสร้างไฟล์ package.json

```
devuser@backend018:/var/www/lab4/server$ npm init
This utility will walk you through creating a package.json file.
It only covers the most common items, and tries to guess sensible defaults.

See `npm help init` for definitive documentation on these fields
and exactly what they do.

Use `npm install <pkg>` afterwards to install a package and
save it as a dependency in the package.json file.

Press ^C at any time to quit.
package name: (server)
version: (1.0.0)
description:
entry point: (index.js)
test command:
git repository:
keywords:
author:
license: (ISC)
About to write to /var/www/lab4/server/package.json:

{
  "name": "server",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "author": "",
  "license": "ISC"
}

Is this OK? (yes)
npm notice
npm notice New patch version of npm available! 10.2.3 -> 10.2.5
npm notice Changelog: https://github.com/npm/cli/releases/tag/v10.2.5
npm notice Run npm install -g npm@10.2.5 to update!
npm notice
```



## ติดตั้ง Middleware

```
devuser@backend018:/var/www/lab4/server$ npm i --save cors

added 3 packages, and audited 4 packages in 641ms

found 0 vulnerabilities
devuser@backend018:/var/www/lab4/server$ sudo npm install -g nodemon

changed 33 packages in 337ms

3 packages are looking for funding
  run `npm fund` for details
devuser@backend018:/var/www/lab4/server$ npm install --save mysql2

added 12 packages, and audited 16 packages in 2s

found 0 vulnerabilities
devuser@backend018:/var/www/lab4/server$ npm install express --save

added 61 packages, and audited 77 packages in 1s

11 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
```

## Setup example\_user

```
devuser@backend018:/var/www/lab4/server$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.35-0ubuntu0.22.04.1 (Ubuntu)

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> CREATE USER 'example_user'@ '%' IDENTIFIED BY 'P@ssw0rd@2023';
Query OK, 0 rows affected (0.02 sec)

mysql> ALTER USER 'example_user'@ '%' IDENTIFIED WITH mysql_native_password BY 'P@ssw0rd@2023';
Query OK, 0 rows affected (0.00 sec)
```

## Setup database

```
mysql> CREATE DATABASE IF NOT EXISTS `loginsystem` DEFAULT CHARACTER SET utf8 COLLATE utf8_general_ci;
Query OK, 1 row affected, 2 warnings (0.00 sec)

mysql> GRANT ALL ON loginsystem.* TO 'example_user'@'%';
Query OK, 0 rows affected (0.01 sec)

mysql> USE loginsystem;
Database changed
mysql> CREATE TABLE IF NOT EXISTS `users` (
  ->   `username` varchar(50) NOT NULL,
  ->   `password` varchar(500) NOT NULL,
  ->   PRIMARY KEY (`username`)
  -> ) ENGINE=InnoDB DEFAULT CHARSET=utf8;
Query OK, 0 rows affected, 1 warning (0.02 sec)

mysql> USE loginsystem;
Database changed
mysql> INSERT INTO `users` (`username`, `password`) VALUES ('test', 'test');
Query OK, 1 row affected (0.02 sec)

mysql> select * from users;
+-----+-----+
| username | password |
+-----+-----+
| test    | test    |
+-----+-----+
1 row in set (0.00 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.01 sec)

mysql> exit
Bye
devuser@backend018: /var/www/lab4/server$
```

## Allow Port 4000

```
devuser@backend018:~$ sudo ufw allow 4000
Rule added
Rule added (v6)
```

เข้าไปที่ vscode และไปที่เครื่อง backend สร้าง index.js ที่ /var/www/lab4/server

```
JS index.js × package-lock.json
JS index.js > ...
1  const express = require("express");
2  const mysql = require("mysql2");
3  const cors = require("cors");
4
5
6  const app = express();
7
8
9  const db = mysql.createConnection({
10     host: 'localhost',
11     user: 'example_user',
12     password: 'P@ssw0rd@2023',
13     database: 'loginsystem',
14   });
15
16  app.use(express.json());
17  app.use(
18     cors({
19       origin: ["http://weblogin.se-rmutl.net"],
20       methods: ["GET", "POST"],
21       credentials: true,
22     })
23  );
24
25
26  app.get('/', (req, res) => {
27     console.log("Hello from API");
28   });
29
30
31  app.post('/login', (req, res) => {
32     let username = req.body.username;
33     let password = req.body.password;
34
35
36     console.log("body: " + JSON.stringify(req.body));
37
38
39     console.log("username: "+username);
40     console.log("password: "+password);
41
42
43     db.execute(
44       "SELECT * FROM users WHERE username = ? AND password = ?"
```

ทำการเปลี่ยน port และ ip เป็น 10.211.55.9:4000

```
JS App.js ×
src > JS App.js > App > register > then() callback
1  import React, { useEffect, useState } from "react";
2  import Axios from 'axios';
3  import './App.css';
4  function App() {
5    const [usernameReg, setUsernameReg] = useState("");
6    const [passwordReg, setPasswordReg] = useState("");
7    const [username, setUsername] = useState("");
8    const [password, setPassword] = useState("");
9    const [loginStatus, setLoginStatus] = useState("");
10   const register = () => {
11     Axios.post("http://10.211.55.9:4000/register", {
12       username: usernameReg,
13       password: passwordReg,
14     }).then((response) => {
15       console.log(response);
16     });
17
18     if (!response.data.err) {
19       setLoginStatus(" "+usernameReg + " was inserted.");
20     } else {
21       setLoginStatus(response.data.err.sqlMessage);
22     }
23
24   };
25 };
26
27 const login = () => {
28   Axios.post("http://10.211.55.9:4000/login", {
29     username: username,
30     password: password,
31   }).then((response) => {
32     console.log(response);
33     //console.log("response.data.message: "+response.data[0].message);
34
35     if (!response.data.message) {
36       setLoginStatus(" "+response.data[0].username + " was logged in.");
37     } else {
38       setLoginStatus(response.data.message);
39     }
40   });
41 }
```

ทดสอบ

←→🔍Not Secureweblogin.se-rmutl.net

GmailMapsYouTubeGoogle

All Bookmarks

Registration

Username

password

Register

Login

Username...

Password...

Login

Duplicate entry " for key 'users.PRIMARY'

←→🔍Not Secureweblogin.se-rmutl.net

GmailMapsYouTubeGoogle

All Bookmarks

Registration

Username

test

password

test

Register

Login

Username...

Password...

Login

Duplicate entry 'test' for key 'users.PRIMARY'

←→🔍Not Secureweblogin.se-rmutl.net

GmailMapsYouTubeGoogle

All Bookmarks

Registration

Username

password

Register

Login

Username...

Password...

Login

" was logged in.

←→🔍Not Secureweblogin.se-rmutl.net

GmailMapsYouTubeGoogle

All Bookmarks

Registration

Username

password

Register

Login

test

\*\*\*

Login

'test' was logged in.