```
cd /var/www/lab3 เพื่อเข้าไปไฟล์ lab3
npx create-react-app my-react-app สร้างไฟล์ react
cd my-react-app เพื่อเข้าไปในไฟล์ react
```

`devuser@server:/var/www/lab3/my-react-app$`

sudo nano package.json เพื่อเข้าไปแก้ไข PORT 3000 > PORT 3001

`devuser@server:/var/www/lab3/my-react-app$ sudo nano package.json`

แก้ไข PORT จาก 3000 > 3001 = "start": "PORT=3001 react-scripts start",

```
  GNU nano 6.2                              package.json
{
  "name": "my-react-app",
  "version": "0.1.0",
  "private": true,
  "dependencies": {
    "@testing-library/jest-dom": "^5.17.0",
    "@testing-library/react": "^13.4.0",
    "@testing-library/user-event": "^13.5.0",
    "react": "^18.2.0",
    "react-dom": "^18.2.0",
    "react-scripts": "5.0.1",
    "web-vitals": "^2.1.4"
  },
  "scripts": {
    "start": "PORT=3001 react-scripts start",
    "build": "react-scripts build",
    "test": "react-scripts test",
    "eject": "react-scripts eject"
  },
  "eslintConfig": {
    "extends": [
      "react-app",
      "react-app/jest"
    ]
  },
  "browserslist": {
    "production": [
      ">0.2%",
      "not dead",
      "not op_mini all"
    ],
    "development": [
      "last 1 chrome version",
      "last 1 firefox version",
      "last 1 safari version"
    ]
  }
}
```

npm start เพื่อเริ่ม

`devuser@server:/var/www/lab3/my-react-app$ npm start`

```
Compiled successfully!

You can now view my-react-app in the browser.

  Local:            http://localhost:3001
  On Your Network:  http://10.211.55.7:3001

Note that the development build is not optimized.
To create a production build, use npm run build.

webpack compiled successfully
```
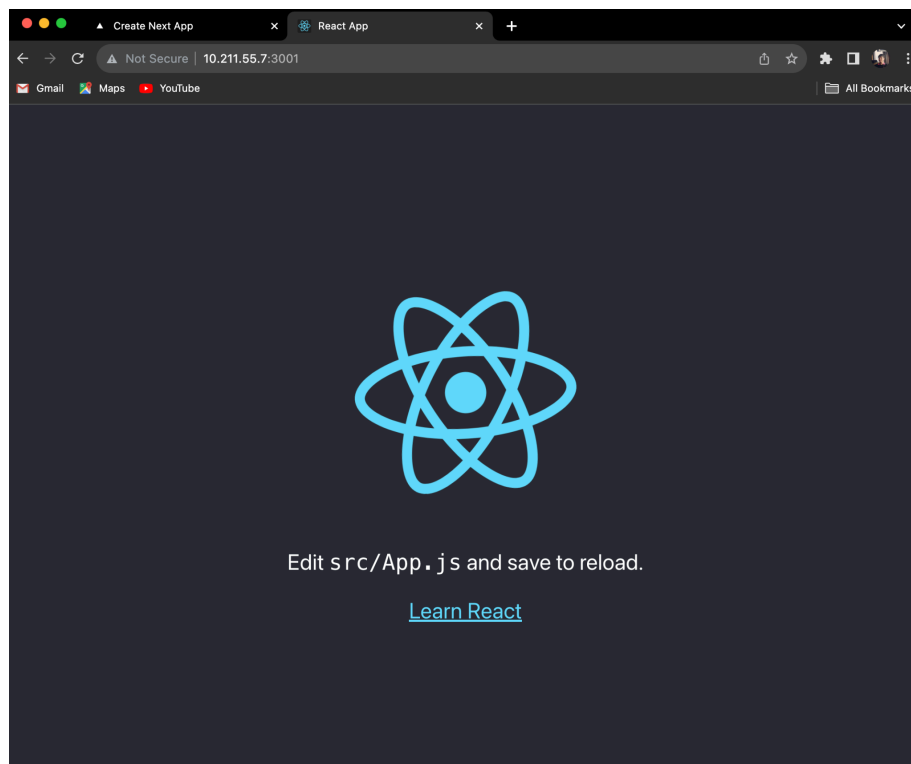
10.211.55.7:3002

cd /var/www/lab3 **เข้าไปในไฟล์** lab3
npx create-next-app@latest ubuntu-next-app **สร้างไฟล์** ubuntu-next-app
cd ubuntu-next-app **เข้าไปในไฟล์** ubuntu-next-app

```
devuser@server:/var/www/lab3/ubuntu-next-app$
```

sudo nano package.json **เพื่อเข้าไปแก้ไข** PORT **เป็น** PORT3002

```
devuser@server:/var/www/lab3/ubuntu-next-app$ sudo nano package.json
```

"dev": "next dev **เพิ่ม** -p 3002",
"build": "next build",
"start": "next start **เพิ่ม** -p 3002"

```json
  GNU nano 6.2                          package.json
{
  "name": "ubuntu-next-app",
  "version": "0.1.0",
  "private": true,
  "scripts": {
    "dev": "next dev -p 3002",
    "build": "next build",
    "start": "next start -p 3002",
    "lint": "next lint"
  },
  "dependencies": {
    "react": "^18",
    "react-dom": "^18",
    "next": "14.0.4"
  },
  "devDependencies": {
    "typescript": "^5",
    "@types/node": "^20",
    "@types/react": "^18",
    "@types/react-dom": "^18",
    "autoprefixer": "^10.0.1",
    "postcss": "^8",
    "tailwindcss": "^3.3.0",
    "eslint": "^8",
    "eslint-config-next": "14.0.4"
  }
}
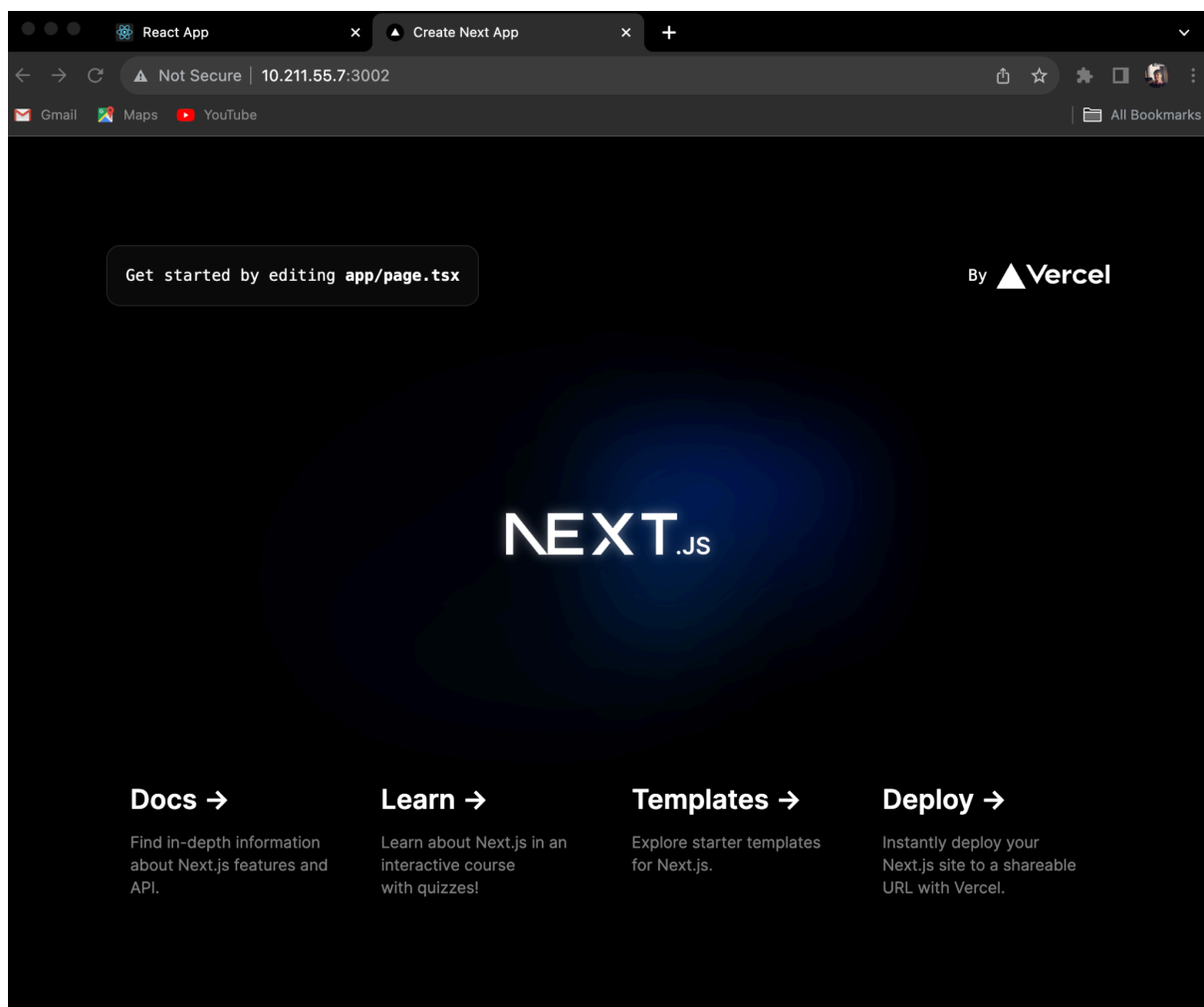```

npm start เพื่อเริ่ม

```
devuser@server:/var/www/lab3/ubuntu-next-app$ npm start

> ubuntu-next-app@0.1.0 start
> next start -p 3002

   ▲ Next.js 14.0.4
   - Local:        http://localhost:3002


 ✓ Ready in 188ms
```

10.211.55.7:3002

pm2 start --name my-react-app npm--start เพื่อสร้างตัว my react

```
devuser@server:/var/www/lab3/my-react-app$ pm2 start --name my-react-app  npm -- start
[PM2] Starting /usr/bin/npm in fork_mode (1 instance)
[PM2] Done.
```

id	name	mode	↺	status	cpu	memory
0	my-react-app	fork	0	online	0%	13.3mb

pm2 start --name ubuntu-next-app npm--start เพื่อสร้างตัว ubuntu

```
devuser@server:/var/www/lab3/ubuntu-next-app$ pm2 start --name ubuntu-next-app  npm -- start
[PM2] Starting /usr/bin/npm in fork_mode (1 instance)
[PM2] Done.
```

id	name	mode	↺	status	cpu	memory
0	my-react-app	fork	0	online	0%	57.9mb
1	ubuntu-next-app	fork	0	online	0%	3.4mb

sudo nano myapp เพื่อเข้าไปในไฟล์ my app

```
devuser@server:/etc/nginx/sites-available$ sudo nano myapp
```

เข้าไปแก้ไข server_name เป็น my-react-app.se-rmutl.net

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

        location / {
                proxy_pass http://127.0.0.1:3001; # !!! - 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;
        }

}
```

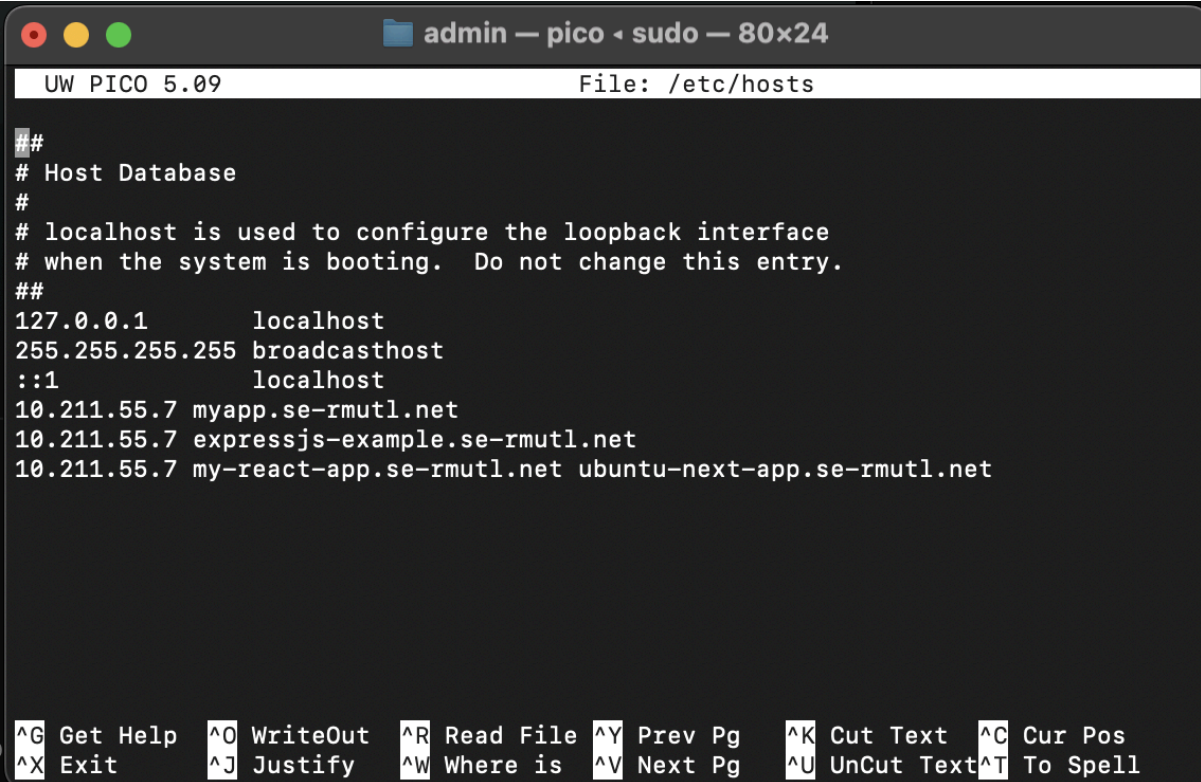sudo nano ubuntu-next-app เพื่อเข้าไปในไฟล์ ubuntu

```
devuser@server:/etc/nginx/sites-available$ sudo nano ubuntu-next-app
```

เข้าไปแก้ไข server_name เป็น ubuntu-next-app.se-rmutl.net

```
  GNU nano 6.2                          ubuntu-next-app                                    S
server {
        listen 80;
        listen [::]:80;
        server_name ubuntu-next-app.se-rmutl.net;

        location / {
                proxy_pass http://127.0.0.1:3002; # !!! - 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;
        }

}
```
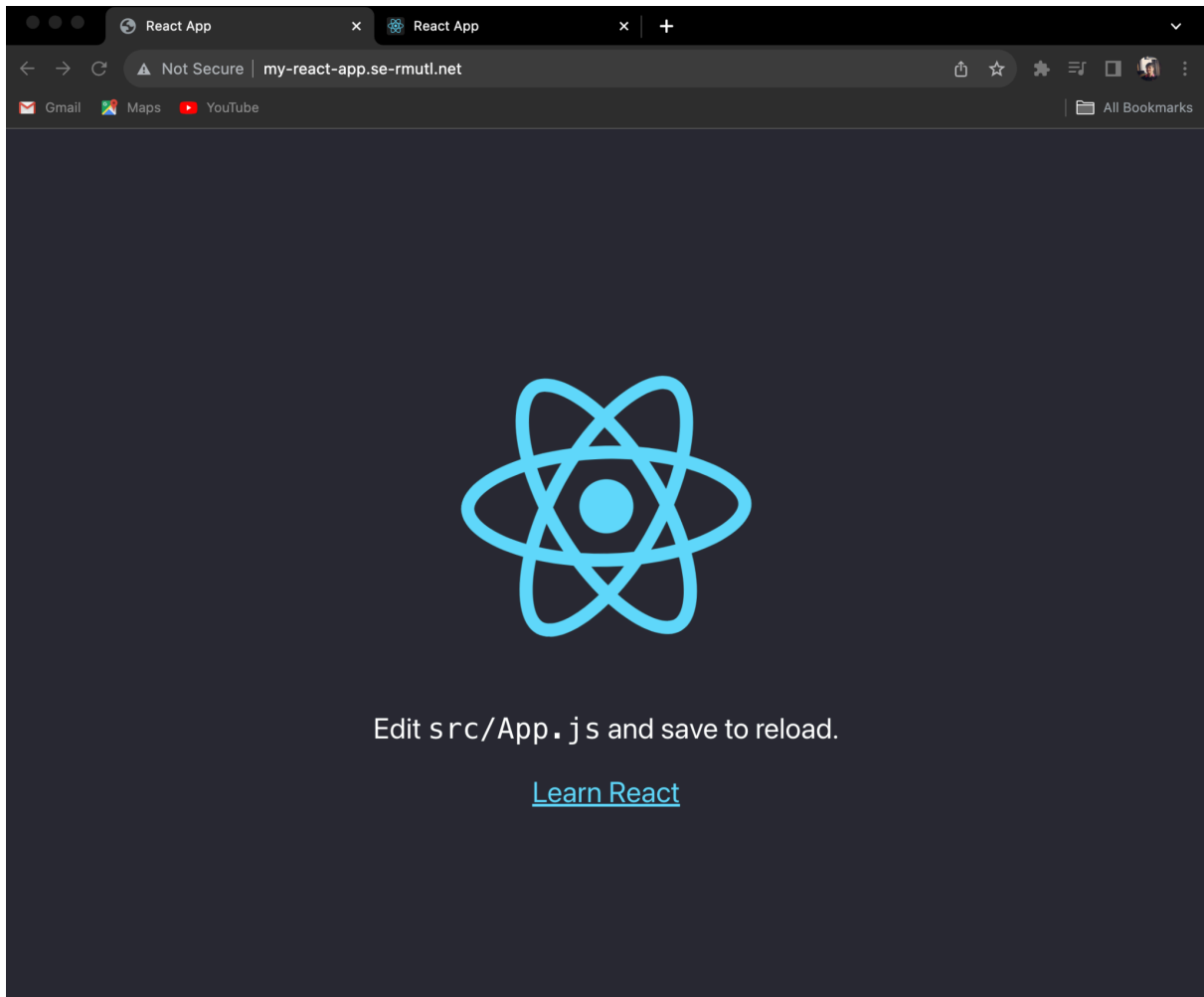
เข้าไปที่ `terminal` เพื่อเข้าไปแก้ไข `host`
```
sudo nano /etc/hosts
```
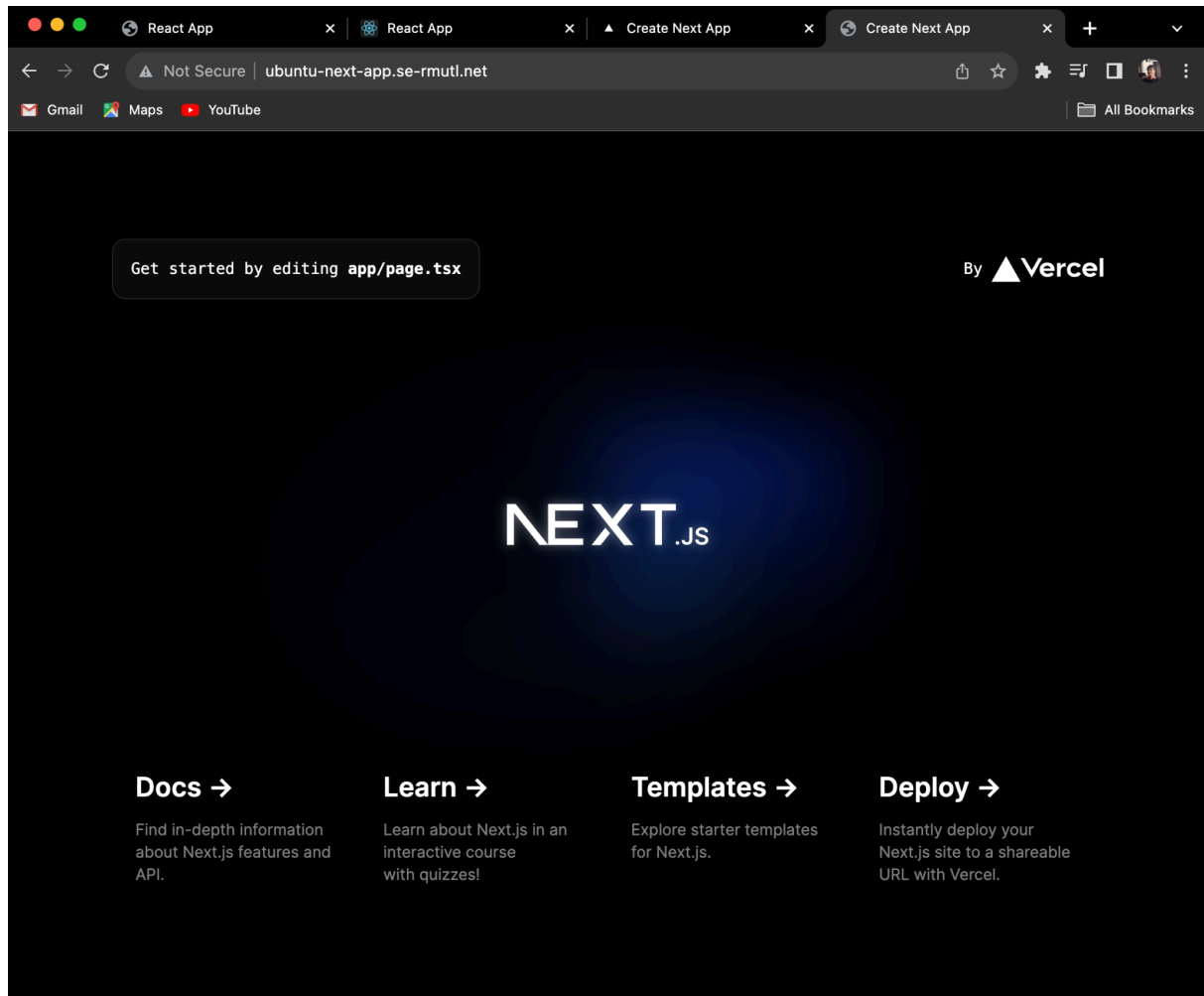
```
●  ●  ●                    📁 admin — pico ‹ sudo — 80×24

  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






^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
```

http://my-react-app.se-rmutl.net
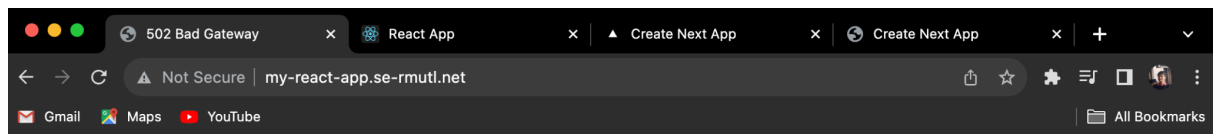
http://ubuntu-next-app.se-rmutl.net

pm2 stop my-react-app เพื่อหยุดการทำงาน my react app

```
devuser@server:/var/www/lab3/my-react-app$ pm2 stop my-react-app
[PM2] Applying action stopProcessId on app [my-react-app](ids: [ 0 ])
[PM2] [my-react-app](0) ✓
```

id	name	mode	↻	status	cpu	memory
0	my-react-app	fork	0	stopped	0%	0b
1	ubuntu-next-app	fork	0	online	0%	59.3mb

```
devuser@server:/var/www/lab3/my-react-app$
```
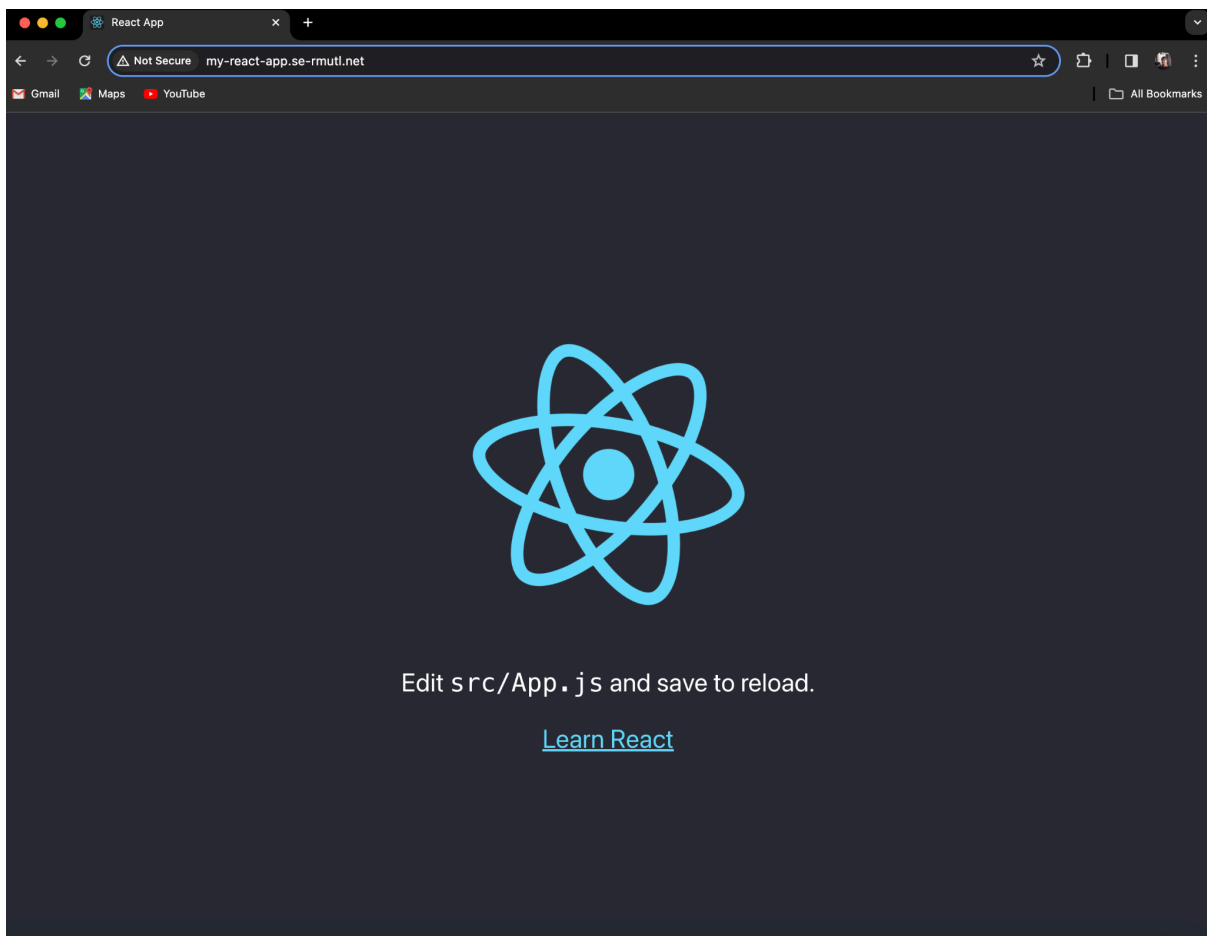

502 Bad Gateway

nginx/1.18.0 (Ubuntu)

pm2 start my-react-app เพื่อเริ่มการทำงาน my react app

```
devuser@server:/var/www/lab3/my-react-app$ pm2 start my-react-app
[PM2] Applying action restartProcessId on app [my-react-app](ids: [ 0 ])
[PM2] [my-react-app](0) ✓
[PM2] Process successfully started
```

id	name	mode	↺	status	cpu	memory
0	my-react-app	fork	0	online	0%	424.0kb
1	ubuntu-next-app	fork	0	online	0%	60.1mb

http://my-react-app.se-rmutl.net

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