

# CAB230 Assignment

CLIENT SIDE REPORT

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DATE OF SUBMISSION: 2<sup>ND</sup> JUNE

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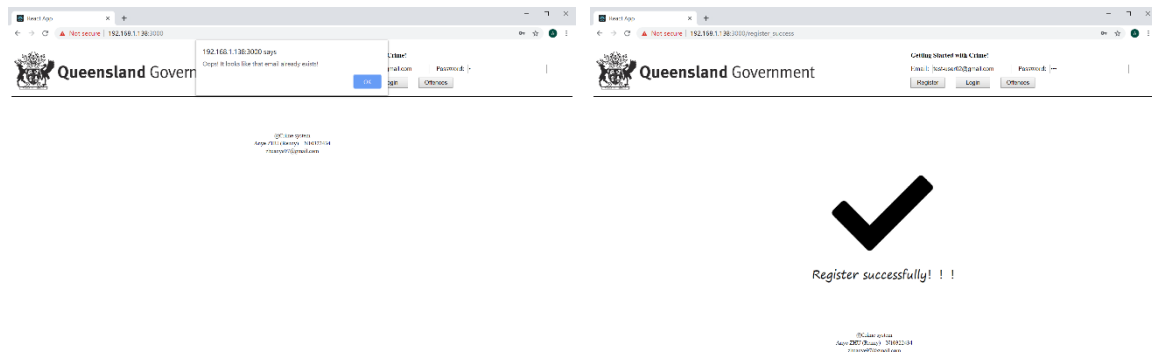
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# 1. Introduction

The client side used react.js. Register, login, offences, search and chart functions have been implemented, and the map function was not implemented.

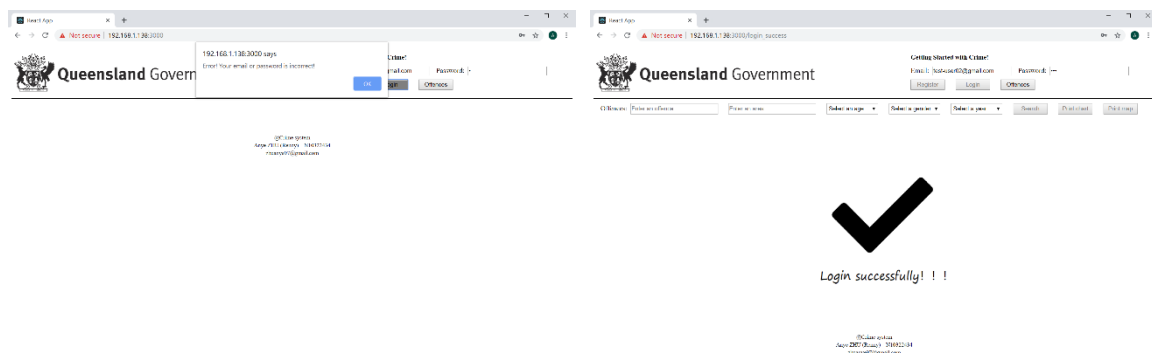
## 1.1. Register

Enter email and password to register. If the email has been registered, the client-side will display the notification. If register successfully, the client-side will show the 'Register successfully!!!' notification, then the user could login.



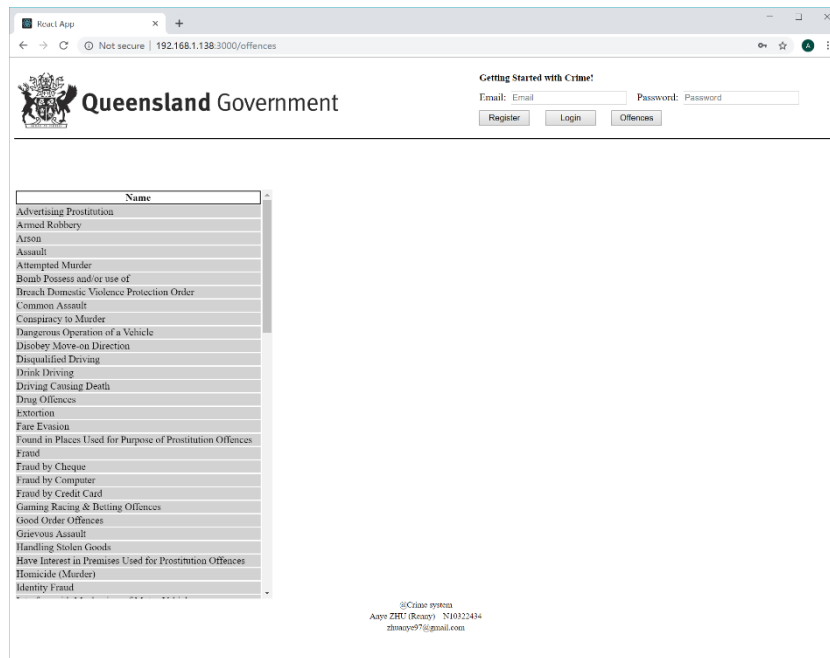
## 1.2. Login

Enter the registered email and password correctly, then the client-side will show the 'Login successfully!!!' notification. Besides, it will also show filters, search button, chart button and map button, but these functions only could be used after successful login. However, if email or password is wrong, the user will not login successfully.



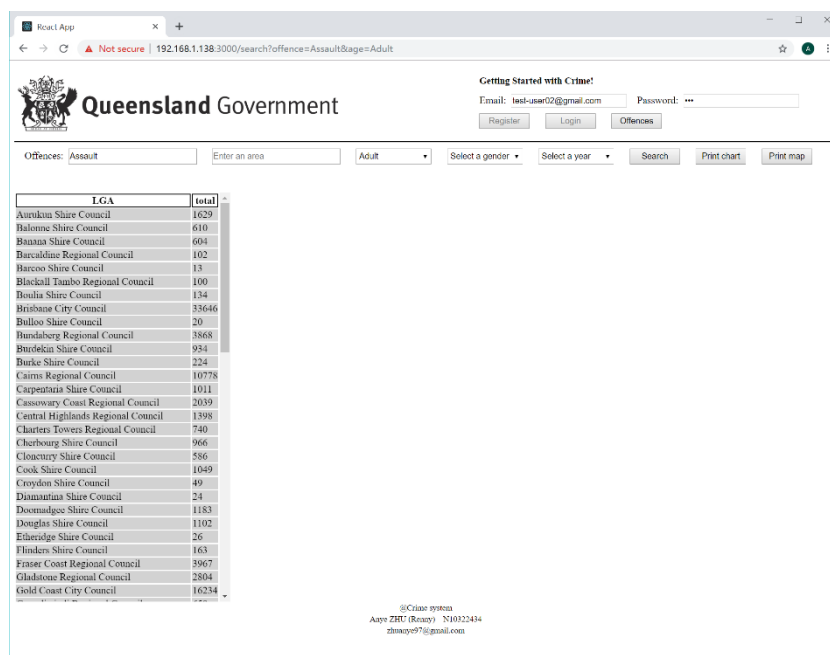
## 1.3. Offences

The user could get the offences table by clicking the 'Offences' button. And this function does not need to login.



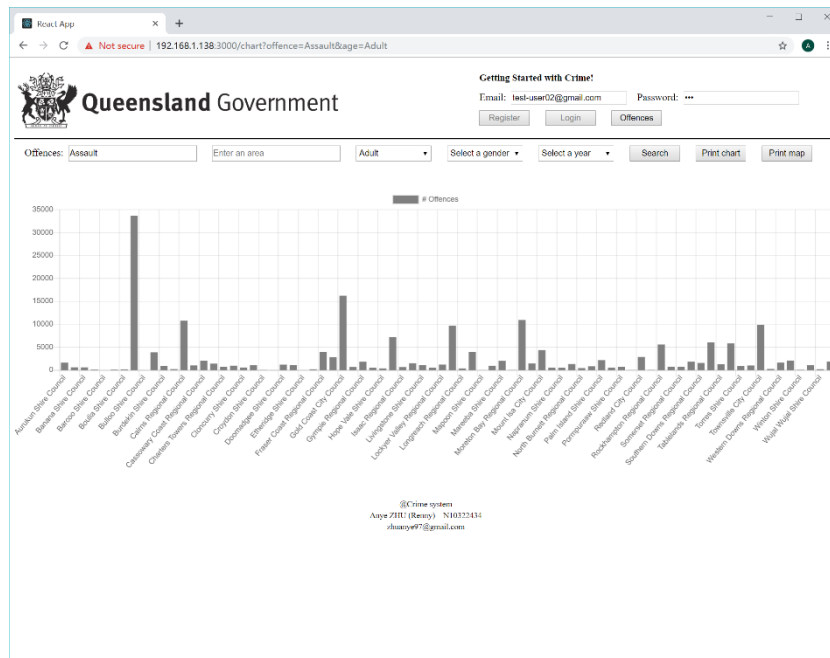
#### 1.4. Search with filters

In the search part, the user must choose an offence when using the search function, and the filters are optional. Each filter can be used independently. Every time the user chooses a filter, some results will be filtered out. The following example is searching 'Assault' with the age filter (age=Adult).



#### 1.5. Chart (No map)

Use the search results above to do the chart function. Clicking the 'Print chart' button can get a bar chart on the results.



## 2. Technical Description of the Application

### 2.1. React.js

I met some problems in learning react at first, but with the help of my classmates and the information on the internet, I gradually became familiar with using react. React.js helps to write more concise and understandable code.

### 2.2. Chart.js

'Get Started' on the chart.js website is very helpful in writing the chart part of client-side.

### 2.3. Map (BING Map)

In terms of map function, I did not spend too much time on this part, because I found it difficult when I started to do the map part.

## 3. Testing and limitations

### 3.1. Plans

#### 3.1.1. Register

- 1). Enter the registered email to register. The expected result is showing the alert "Oops! It looks like that email already exists!".
- 2). Enter the new email to register. The expected result is showing the "Register successfully!!!" notification.
- 3). Enter nothing to register. The expected result is showing the alert "Need to enter valid email and password!".

#### 3.1.2. Login

- 1). Enter the registered email and valid password to login. The expected result is showing the "Login successfully!!!" notification.
- 2). Enter the registered email and wrong password to login. The expected result is showing the alert "Error! Your email or password is incorrect!".

3). Enter the unregistered email and password to register. The expected result is showing the alert "Error! Your email or password is incorrect!".

#### 3.1.3. Search

- 1). Enter nothing. The expected result is that the search button is disabled.
- 2). Enter an offence and click the search button. The expected result is showing the search results in the table.

#### 3.1.4. Search with filters

- 1). Select some filters and do not enter an offence. The expected result is that the search button is disabled.
- 2). Enter an offence and choose one filter, then click the search button. The expected result is showing the search results in the table.
- 3). Enter an offence and choose more than one filter, then click the search button. The expected result is showing the search results in the table.

#### 3.1.5. Print chart

- 1). Select some filters and do not enter an offence. The expected result is that the chart button is disabled.
- 2). Enter an offence and must choose the area filter. The expected result is showing the chart with only one bar.
- 3). Enter an offence and must not choose the area filter. The expected result is showing the chart with multiple bars.

#### 3.1.6. Print map: No map.

### 3.2. Results

#### 3.2.1. Register

- 1). The client-side shows the alert "Oops! It looks like that email already exists!".
- 2). The client-side shows the "Login successfully!!!" notification.
- 3). The client-side can still register successfully.

#### 3.2.2. Login

- 1). The client-side shows the "Login successfully!!!" notification.
- 2). The client-side shows the alert "Error! Your email or password is incorrect!".
- 3). The client-side shows the alert "Error! Your email or password is incorrect!".

#### 3.2.3. Search

- 1). The search button is disabled.
- 2). The client-side shows the search results in the table.

#### 3.2.4. Search with filters

- 1). The search button is disabled.
- 2). The client-side shows the correct search results in the table.
- 3). The client-side shows the correct search results in the table.

### 3.2.5. Print chart

- 1). The chart button is disabled.
- 2). The client-side shows the chart with only one bar.
- 3). The client-side shows the chart with multiple bars.

### 3.2.6. Print map: No map.

## 3.3. Compromises

- 3.3.1. Client-side does not have Map functionality because of the lack of time.
- 3.3.2. Client-side does not have the logout button.
- 3.3.3. Client-side lacks the function for filtering out results with a total of 0.
- 3.3.4. Table part lacks sorting function.

## 4. References

JavaScript Tutorial, 2019. Retrieved from <https://www.w3schools.com/js/default.asp>

CSS Tutorial, 2019. Retrieved from <https://www.w3schools.com/css/default.asp>

React, 2019. Retrieved from <https://reactjs.org/>

Chart.js, 2019. Retrieved from <https://www.chartjs.org/>

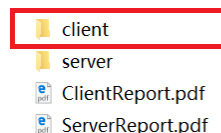
## 5. Appendix: brief user guide

### 5.1. Some detailed description

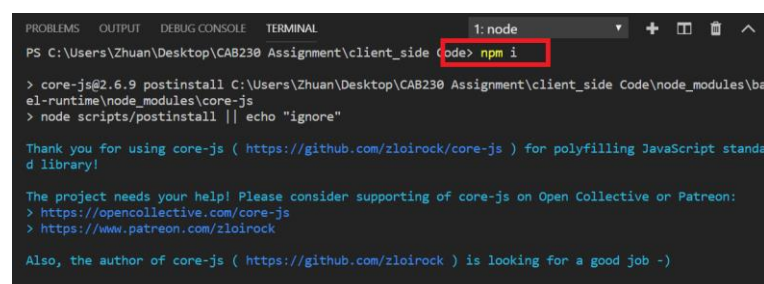
- 1). Users who have not previously used this client-side need to register first.
- 2). Enter the valid email and password to register, the client-side will show the “Register successfully!!!” notification.
- 3). After entering the registered email and valid password, users could login successfully, and the client-side will show the “Login successfully!!!” notification.
- 4). Users must enter an offence to do search function, but the filters are optional. Users can do search function without selecting filters, or select one or more filters.
- 5). After obtaining the search results, users can click the 'Print chart' button to get a bar chart, which contains the detailed information of the selected offence.

### 5.2. Installation guide

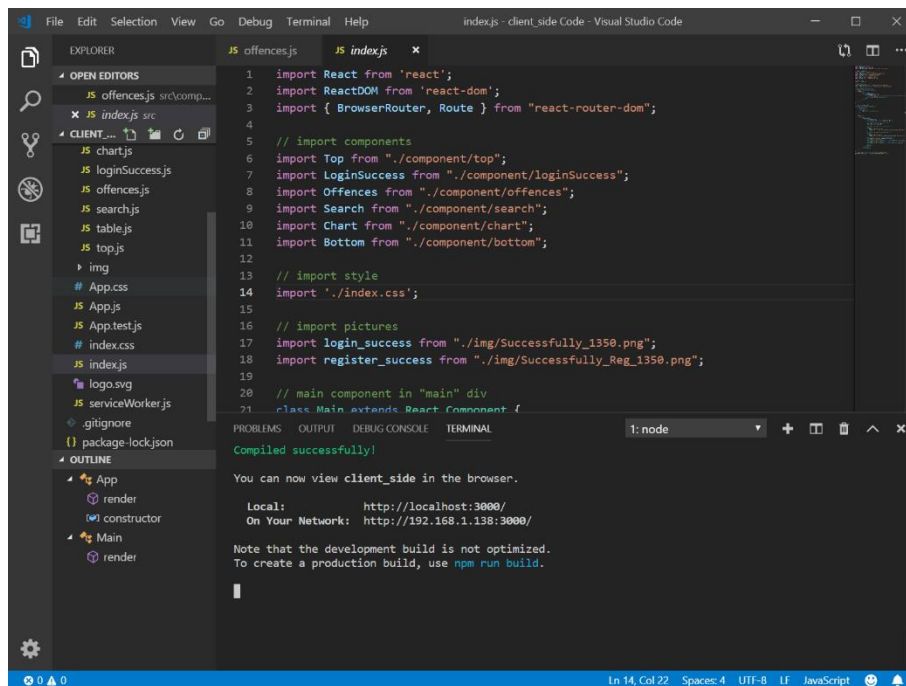
Step1: Open **client** file with VS Code.



Step2: Execute **npm install** in the terminal of VS code.



Step3: Execute `npm start` in the terminal to start the client-side.



The screenshot shows the Visual Studio Code editor with the `index.js` file open. The file contains the following code:

```
1 import React from 'react';
2 import ReactDOM from 'react-dom';
3 import { BrowserRouter, Route } from "react-router-dom";
4
5 // import components
6 import Top from "./component/top";
7 import LoginSuccess from "./component/loginSuccess";
8 import Offences from "./component/offences";
9 import Search from "./component/search";
10 import Chart from "./component/chart";
11 import Bottom from "./component/bottom";
12
13 // import style
14 import './index.css';
15
16 // import pictures
17 import login_success from "./img/Successfully_1350.png";
18 import register_success from "./img/Successfully_Reg_1350.png";
19
20 // main component in "main" div
21 class Main extends React.Component {
```

The terminal output shows the following messages:

```
Compiled successfully!
You can now view client_side in the browser.
Local: http://localhost:3000/
On Your Network: http://192.168.1.138:3000/
Note that the development build is not optimized.
To create a production build, use npm run build.
```

This is the client-side page.

