

# CLIENT REPORT

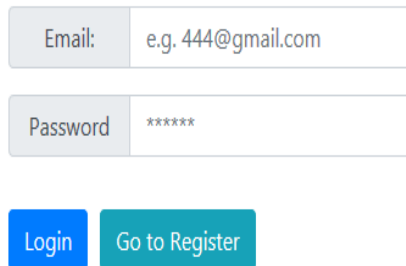
Junshao Lin (n9840524)

CAB230

## Introduction

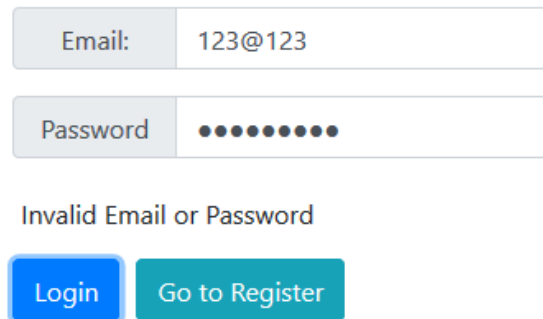
All requirements that mentioned in the client side specification are implemented.

## Registration and login



A login form with two input fields. The first field is labeled 'Email:' and contains the text 'e.g. 444@gmail.com'. The second field is labeled 'Password' and contains seven asterisks '\*\*\*\*\*'. Below the fields are two buttons: a blue 'Login' button and a teal 'Go to Register' button.

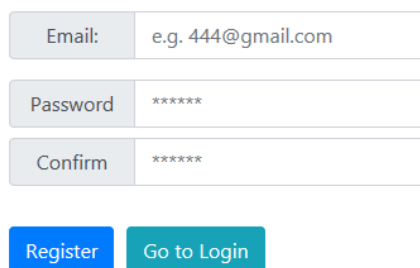
Figure 1 Login



A login form with two input fields. The first field is labeled 'Email:' and contains the text '123@123'. The second field is labeled 'Password' and contains ten dots '.....'. Below the fields is an error message 'Invalid Email or Password' in red. At the bottom are two buttons: a blue 'Login' button and a teal 'Go to Register' button.

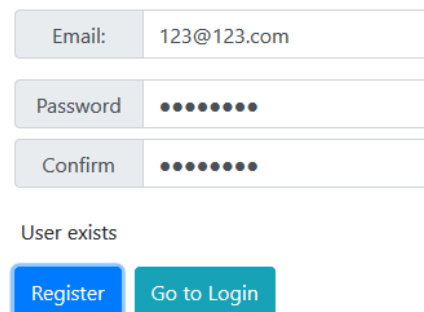
Figure 2 Login with Wrong email or password

Figure 1 presents the GUI of login. Figure 2 presents the results when users input invalid values



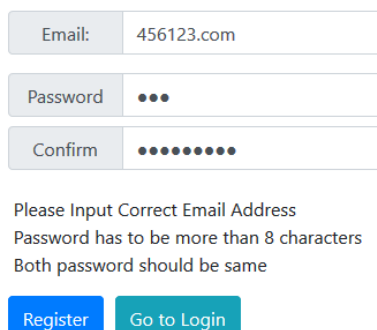
A registration form with three input fields. The first field is labeled 'Email:' and contains the text 'e.g. 444@gmail.com'. The second field is labeled 'Password' and contains seven asterisks '\*\*\*\*\*'. The third field is labeled 'Confirm' and contains seven asterisks '\*\*\*\*\*'. Below the fields are two buttons: a blue 'Register' button and a teal 'Go to Login' button.

Figure 3 Register



A registration form with three input fields. The first field is labeled 'Email:' and contains the text '123@123.com'. The second field is labeled 'Password' and contains seven dots '.....'. The third field is labeled 'Confirm' and contains seven dots '.....'. Below the fields is an error message 'User exists' in red. At the bottom are two buttons: a blue 'Register' button and a teal 'Go to Login' button.

Figure 4 Register with Exist user



A registration form with three input fields. The first field is labeled 'Email:' and contains the text '456123.com'. The second field is labeled 'Password' and contains three dots '...'. The third field is labeled 'Confirm' and contains seven dots '.....'. Below the fields are three error messages in red: 'Please Input Correct Email Address', 'Password has to be more than 8 characters', and 'Both password should be same'. At the bottom are two buttons: a blue 'Register' button and a teal 'Go to Login' button.

Figure 5 Register with invalid inputs

Figure 3 presents the GUI of register. Figure 4 presents the results when the user exists. Figure 5 presents the result when users input invalid values.

## The Offences Information Endpoint

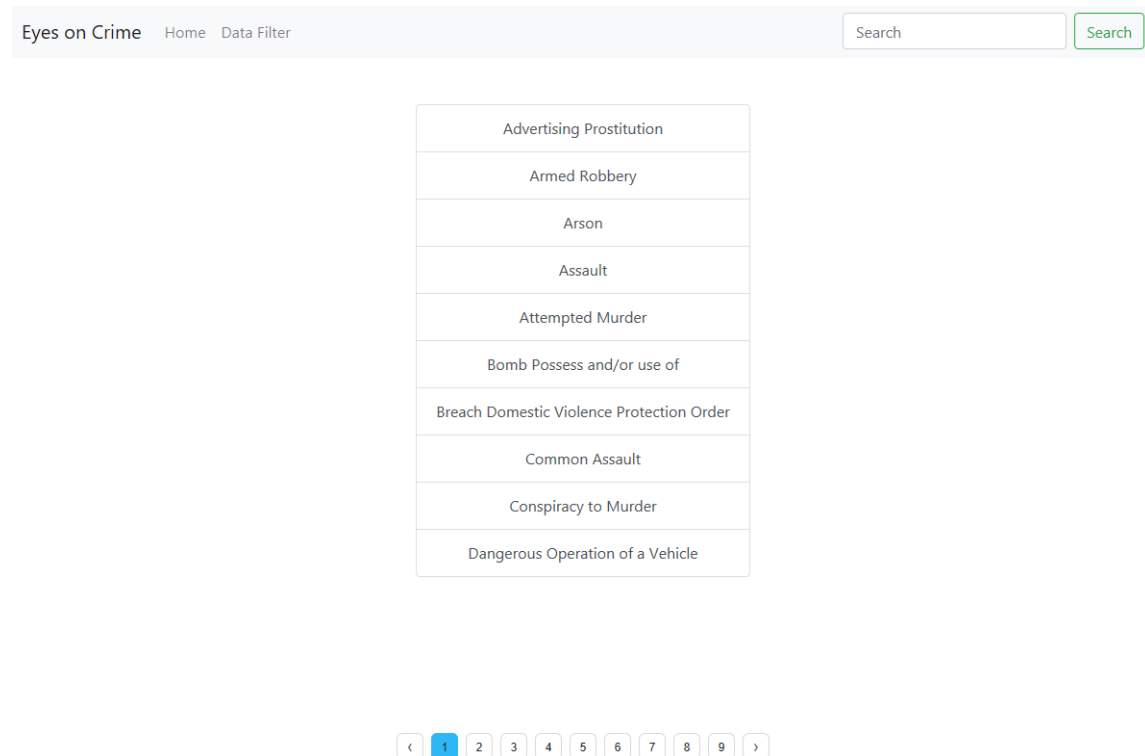


Figure 6 Home Page

Figure 6 presents the GUI of home page which represents all offences information. Users can click the button such as 'Arson' to look at the details. Users can click the page number to view another groups of offences.

## The Search Endpoint

### Simple Search

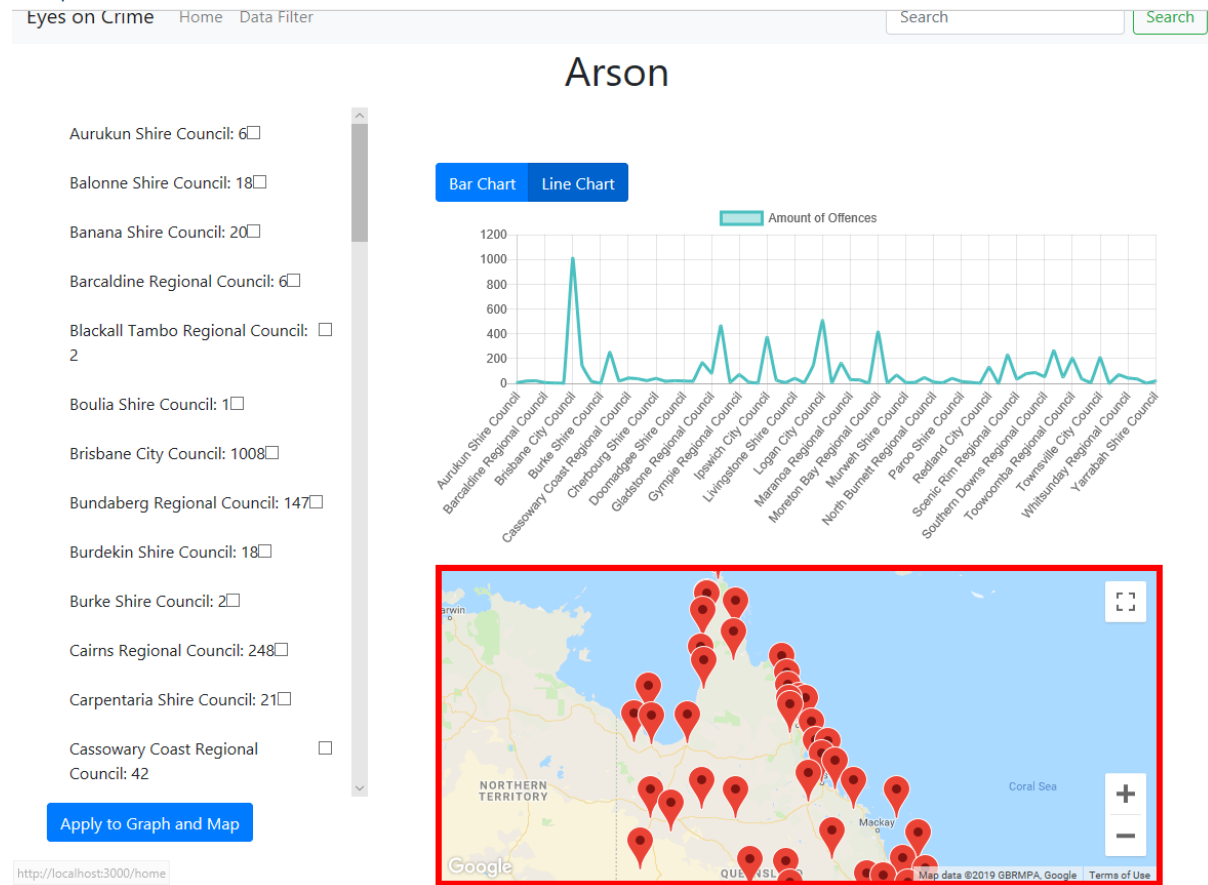


Figure 7 Simple Search Result

Figure 7 presents the simple search result when users click 'Arson' in the home page. There are areas' information, chart that display all the information and map that display the location all areas. Users can select the specific area that they want to view and apply their selection to graphs and map by clicking 'Apply to Graph and Map'

## Data Filter

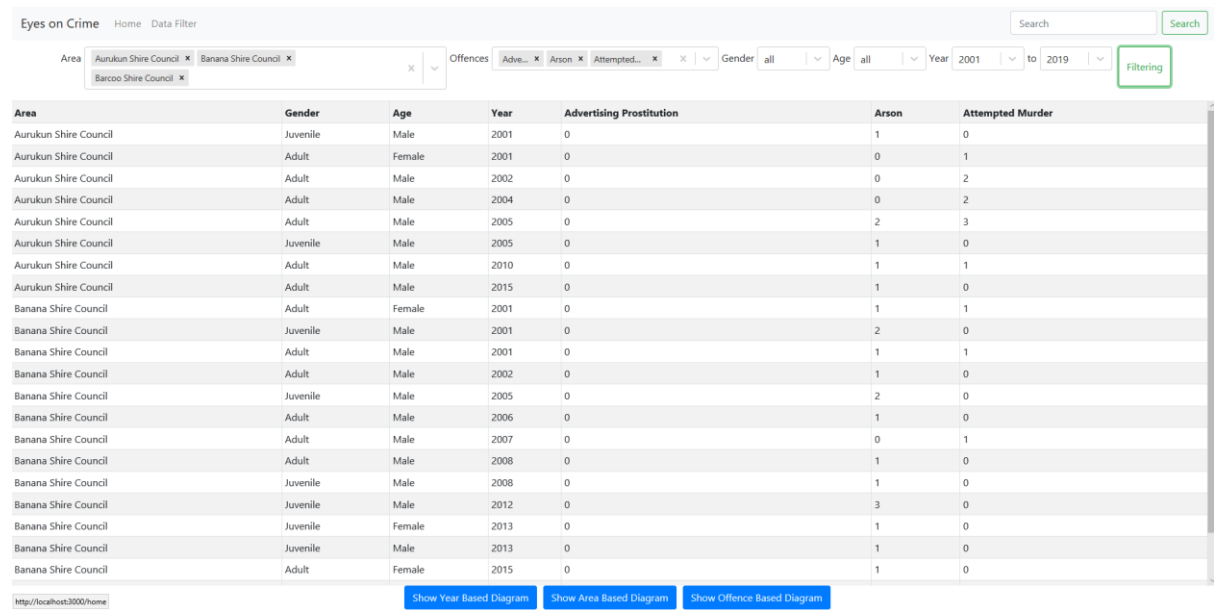


Figure 8 Advance Search Results



Figure 9 Line Chart based on offences

Figure 8 presents the GUI results when users use data filter functions. All data is displayed in a table.

Users can click the button under the table to view the graphic presentation. There are three different buttons relate to different type of graphics. Figure 9 presents a offences based graph.

## Technical Description

### Graphic

The library is used to develop diagram is 'react-chartjs-2', which uses 'Chart.js' as resource library.

'Chart.js' is an open-source library that helps JavaScript users to create different charts easily. Users need to provide data to chart with specific format as Figure 10 displays.

```
graphData: {  
  labels: [],  
  datasets: [  
    {  
      label: 'Amount of Offences',  
      fill: false,  
      lineTension: 0.1,  
      backgroundColor: 'rgba(75,192,192,0.4)',  
      borderColor: 'rgba(75,192,192,1)',  
      borderCapStyle: 'butt',  
      borderDash: [],  
      borderDashOffset: 0.0,  
      borderJoinStyle: 'miter',  
      pointBorderColor: 'rgba(75,192,192,1)',  
      pointBackgroundColor: '#fff',  
      pointBorderWidth: 1,  
      pointHoverRadius: 5,  
      pointHoverBackgroundColor: 'rgba(75,192,192,1)',  
      pointHoverBorderColor: 'rgba(220,220,220,1)',  
      pointHoverBorderWidth: 2,  
      pointRadius: 1,  
      pointHitRadius: 10,  
      data: []  
    }  
  ]  
}
```

Figure 10 Data Sample

## Maps

The library is used to develop diagram is 'google-map-react, which uses google map library as resource library. Users can customize maps with their own content to display on web pages (Google, 2019). To use this library, users need to provide their own key, which get from google. Also, users need to provide longitude and latitude for every markers as Figure 11 displays.

```
let marker = new maps.Marker({  
  position: myLatLng,  
  map,  
  title: label,  
});  
this.markers.push(marker);  
  
map.setCenter(myLatLng);
```

Figure 11

## Testing and Limitation

Test Case						
Test Case ID: L_001				Test Designed by: Junshao Lin		
Test Priority(Low/Medium/High): High				Test Designed date: 25/05/2019		
Module Name: Login				Test Executed by: Junshao Lin		
Test Title: Login functions				Test Execution date: 25/05/2019		
Description: Verify if users can successful sign in and the response message is suitable						
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Start the system		‘Login’ page displays	‘Login’ page displays	Pass	
2	Input account information with incorrect email	Email:123@456.com Password:12345678	‘Invalid Email or Password’ displays	‘Invalid Email or Password’ displays	Pass	
3	Input account information with incorrect password	Email:123@123.com Password:87654321	‘Invalid Email or Password’ displays	‘Invalid Email or Password’ displays	Pass	
4	Input correct account information	Email:123@123.com Password:12345678	‘Home’ Page displays	‘Home’ Page displays	Pass	

**Pre-Requested:** The server side contains an account '123@123.com' with password '12345678'

**Result:** All steps are passed. Thus this function is verified as successful



Test Case						
Test Case ID: R_001				Test Designed by: Junshao Lin		
Test Priority(Low/Medium/High): High				Test Designed date: 25/05/2019		
Module Name: Register				Test Executed by: Junshao Lin		
Test Title: Register functions				Test Execution date: 25/05/2019		
Description: Verify if users can successful Register and the response message is suitable						
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Start the system		‘Login’ page displays	‘Login’ page displays	Pass	
2	Click ‘Go to Register’		‘Register’ page displays	‘Register’ page displays	Pass	
3	Input account information. But the password and confirm is different	Email:123@123.com Password:87654321 Confirm:12345678	‘Both password should be same’ displays	‘Both password should be same’ displays	Pass	
4	Input an existed account information.	Email:123@123.com Password:12345678 Confirm:12345678	‘User exists’ displays	‘User exists’ displays	Pass	
5	Input a new account information	Email:456@456.com Password:12345678 Confirm:12345678	‘Home’ Page displays	‘Home’ Page displays		

**Requirement:** The server side contains an account '123@123.com' with password '12345678' and the server does not contains an account '456@456.com'

**Result:** All steps are passed. Thus this function is verified as successful

Test Case						
Test Case ID: H_001			Test Designed by: Junshao Lin			
Test Priority(Low/Medium/High): High			Test Designed date: 28/05/2019			
Module Name: Home			Test Executed by: Junshao Lin			
Test Title: Home functions			Test Execution date: 28/05/2019			
Description: Verify if the home page displays all offences data						
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Login into the system	Email:123@123.com Password:12345678	‘Home’ page displays with offences	‘Home’ page displays with offences	Pass	
2	Click ‘Arson’		Search results display	Search results display	Pass	
3	Click ‘Home’ back to ‘Home’ page		‘Home’ page displays with offences	‘Home’ page displays with offences	Pass	
4	Click ‘9’ in the pagination bar		The content has changed	‘The content has changed	Pass	

<b>Result:</b> All steps are passed. Thus this function is verified as successful
<b>Requirement:</b> The server side contains an account '123@123.com' with password '12345678'

Test Case						
Test Case ID: N_001				Test Designed by: Junshao Lin		
Test Priority(Low/Medium/High): High				Test Designed date: 28/05/2019		
Module Name: Navigation				Test Executed by: Junshao Lin		
Test Title: Navigation functions				Test Execution date: 28/05/2019		
Description: Verify if the navigation functions work						
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Login into the system	Email:123@123.com Password:12345678	‘Home’ page displays with navigation bar on top	‘Home’ page displays with navigation bar on top	Pass	
2	Click ‘Data Filter’		‘Data Filter’ page displays	‘Data Filter’ page displays	Pass	
3	Click ‘Home’		‘Home’ page displays with navigation bar on top	‘Home’ page displays with navigation bar on top	Pass	
4	Click ‘Search’ without inputted condition		‘Please Input Search Condition’ displays	‘Please Input Search Condition’ displays	Pass	
5	Click ‘Search’ without wrong condition	Condition: Arms	‘Offence Query Parameter Wrong’ displays	‘Offence Query Parameter Wrong’ displays	Pass	
6	Click ‘Search’ without correct condition	Condition: Arson	Search Results display	Search Results display	Pass	

**Result:** All steps are passed. Thus this function is verified as successful

**Requirement:** The server side contains an account '123@123.com' with password '12345678'

Test Case						
Test Case ID: S_001			Test Designed by: Junshao Lin			
Test Priority(Low/Medium/High): High			Test Designed date: 29/05/2019			
Module Name: Search Result			Test Executed by: Junshao Lin			
Test Title: Search Result analysis functions			Test Execution date: 29/05/2019			
Description: Verify if the analysis functions work						
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Login into the system	Email:123@123.com Password:12345678	‘Home’ page displays with navigation bar on top	‘Home’ page displays with navigation bar on top	Pass	
2	Click ‘Arson’		Search Results display	Search Results display	Pass	
3	Click ‘Bar Chart’		The diagram changes to ‘Bar Chart’	The diagram changes to ‘Bar Chart’	Pass	
4	Select ‘Boulia Shire Council’ and ‘Brisbane City Council’. Then click ‘Apply to Graph and Map’		The graph and map have change corresponding to the selected data	The graph and map have change corresponding to the selected data	Pass	

**Result:** All steps are passed. Thus this function is verified as successful

**Requirement:** The server side contains an account '123@123.com' with password '12345678'

Test Case						
Test Case ID: AS_001			Test Designed by: Junshao Lin			
Test Priority(Low/Medium/High): High			Test Designed date: 01/06/2019			
Module Name: Data Filter (Advance Search)			Test Executed by: Junshao Lin			
Test Title: Data Filter functions			Test Execution date: 01/06/2019			
Description: Verify if the Data Filter functions work						
Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)	Notes
1	Login into the system	Email:123@123.com Password:12345678	‘Home’ page displays with navigation bar on top	‘Home’ page displays with navigation bar on top	Pass	
2	Click ‘Data Filter’		‘Data Filter’ displays with conditions selectors	‘Data Filter’ displays with conditions selectors	Pass	
3	Filtering with conditions	Area: ‘Balonne Shire Council’, ‘Barcoo Shire Council’ Offences: ‘Arson’, ‘Assault’	Data displays in table	Data displays in table	Pass	
4	Click ‘Show Year Based Diagram’		A line graph related to year and offences numbers is presented under the table	A line graph related to year and offences numbers is presented under the table	Pass	
5	Click ‘Show Area Based Diagram’		A line graph related to area and offences numbers is presented under the table	A line graph related to area and offences numbers is presented under the table	Pass	
6	Click ‘Show Offence Based Diagram’		A line graph related to offence categories and offences numbers is presented	A line graph related to offence categories and offences numbers is presented	Pass	

			under the table	under the table		
7	Filtering with conditions	Area: 'Balonne Shire Council', 'Barcoo Shire Council' Offences: 'Arson', 'Assault' Gender: 'Not Stated' Age: 'Adult' Year: 2001 To: 2001	'No result has found' displays	'No result has found' displays		

**Result:** All steps are passed. Thus this function is verified as successful

**Requirement:** The server side contains an account '123@123.com' with password '12345678'

## References

*chart.js*. (2019). Retrieved from <https://www.npmjs.com/package/chart.js?activeTab=readme>

Google. (2019). *Maps JavaScript API Overview*. Retrieved from <https://developers.google.com/maps/documentation/javascript/tutorial>

Istarkov & itsmichaeldiego. (2019). *Google Map React*. Retrieved from <https://www.npmjs.com/package/google-map-react>

Jerairrest. (2019). *react-chartjs-2*. Retrieved from <https://github.com/jerairrest/react-chartjs-2>

*rc-pagination*. (2019). Retrieved from <https://www.npmjs.com/package/rc-pagination>

*react-bootstrap*. (2019). Retrieved from <https://www.npmjs.com/package/react-bootstrap>

*react-select*. (2019). Retrieved from <https://www.npmjs.com/package/react-select>

## Appendix

### User Guide

#### Software Requirement:

- Node.js

Users need to change the IP address of server at './src/Components/address.js'. Then users need to run 'npm install' in Terminal or CMD to install all dependences libraries. After libraries are installed, users can execute 'npm start' in Terminal or CMD to start the software. To use https mode, users need to execute 'set HTTPS=true&&npm start' instead of 'npm start'. To look at details, please browser <https://facebook.github.io/create-react-app/docs/using-https-in-development>

#### Overview

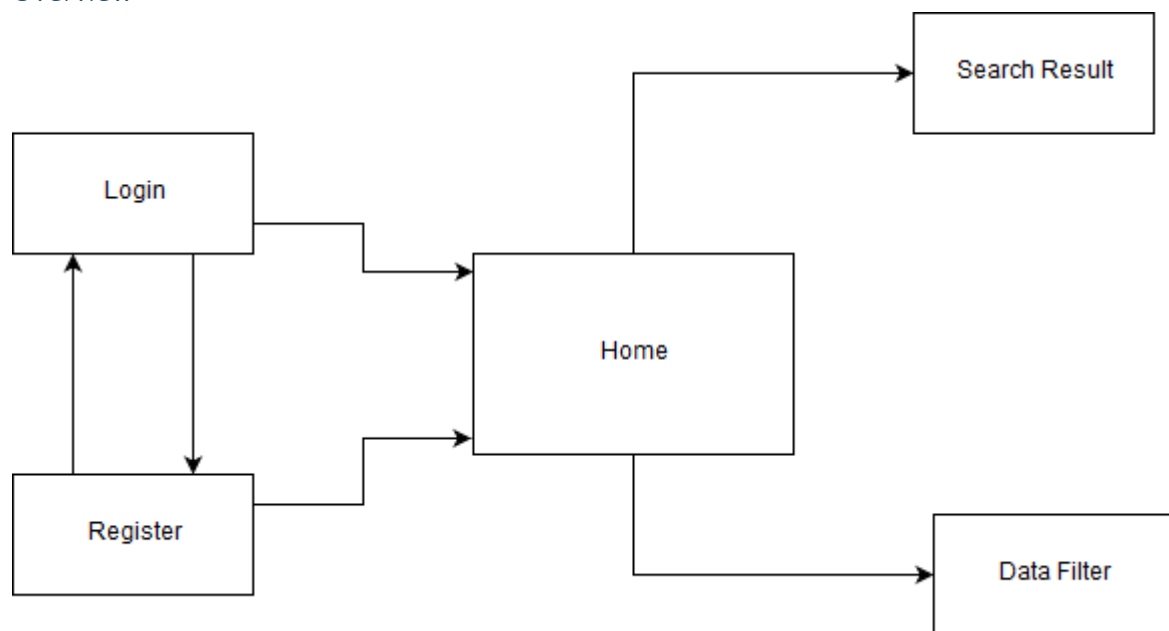


Figure 12

Figure 12 presents the relationship among all pages. 'Login' and 'Register' are interoperable. 'Home' is the next page after users' login or register. Through 'Home' page, users can use search to view the search result or go to 'Data Filter' to search with advance conditoin and view the results.



## Details

### Login and Register

Email:	test@test.com
Password	●●●●●●●●
<a href="#">Login</a> <a href="#">Go to Register</a>	

Email:	e.g. 444@gmail.com
Password	*****
Confirm	*****
<a href="#">Register</a> <a href="#">Go to Login</a>	

Figure 13

Figure 14

Users should input email and password to login into the system or users can click 'Go to Register' to register a new account. For registering, users need make sure the 'Password' and the 'Confirm' contains the same value. Also, the length of password should be more than 8 characters.

### Home page

Eyes on Crime	Home	Data Filter	Search	Search
---------------	------	-------------	--------	--------

Advertising Prostitution
Armed Robbery
Arson
Assault
Attempted Murder
Bomb Possess and/or use of
Breach Domestic Violence Protection Order
Common Assault
Conspiracy to Murder
Dangerous Operation of a Vehicle

[<](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [>](#)

Figure 15 Home Page

After signing in the system, home page (Figure 15) is displayed to users. All offences' name are paginated into pages and each page contains 10 results. Users can click the number or arrow button in the pagination bar to navigate to another page. Furthermore, Users can click offences' name such as 'Arson' to view the details. Also, users can input offences' name into the search input bar to get the information about the offence. If users want to search more specific information, 'Data Filter' is the button that they should click to use the advance search function.

### Normal Search Result

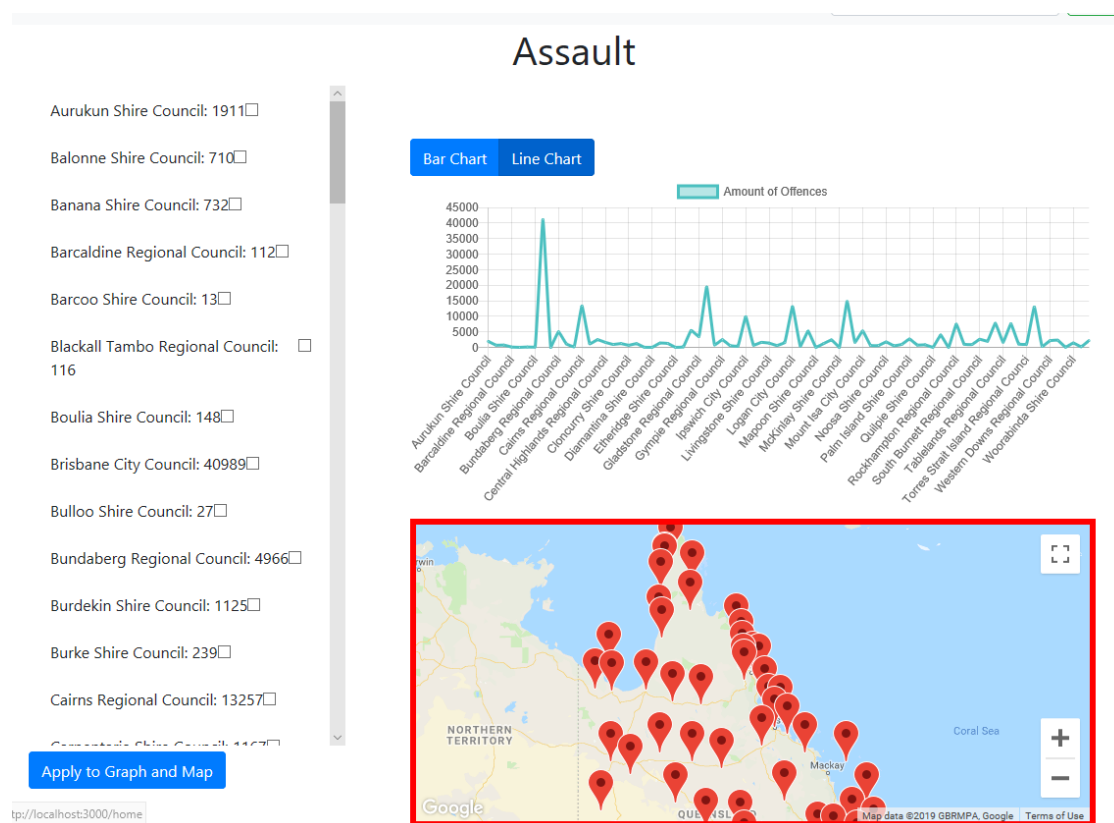


Figure 16

Figure 16 presents the results from search pages. The list on the left contains all area names that has the offence users search for. On the right part, users can view a line chart to display all information and a map with markers to display the location of all councils. Users can click 'Bar Chart' or 'Line Chart' to change the type of the graph. Besides, users can select specific councils by click the checkbox in the list to choose specific area that they want to examine. After selection, they should click 'Apply to Graph and Map' to apply the changes to the graph and map.

### Advance Search (Data Filter)

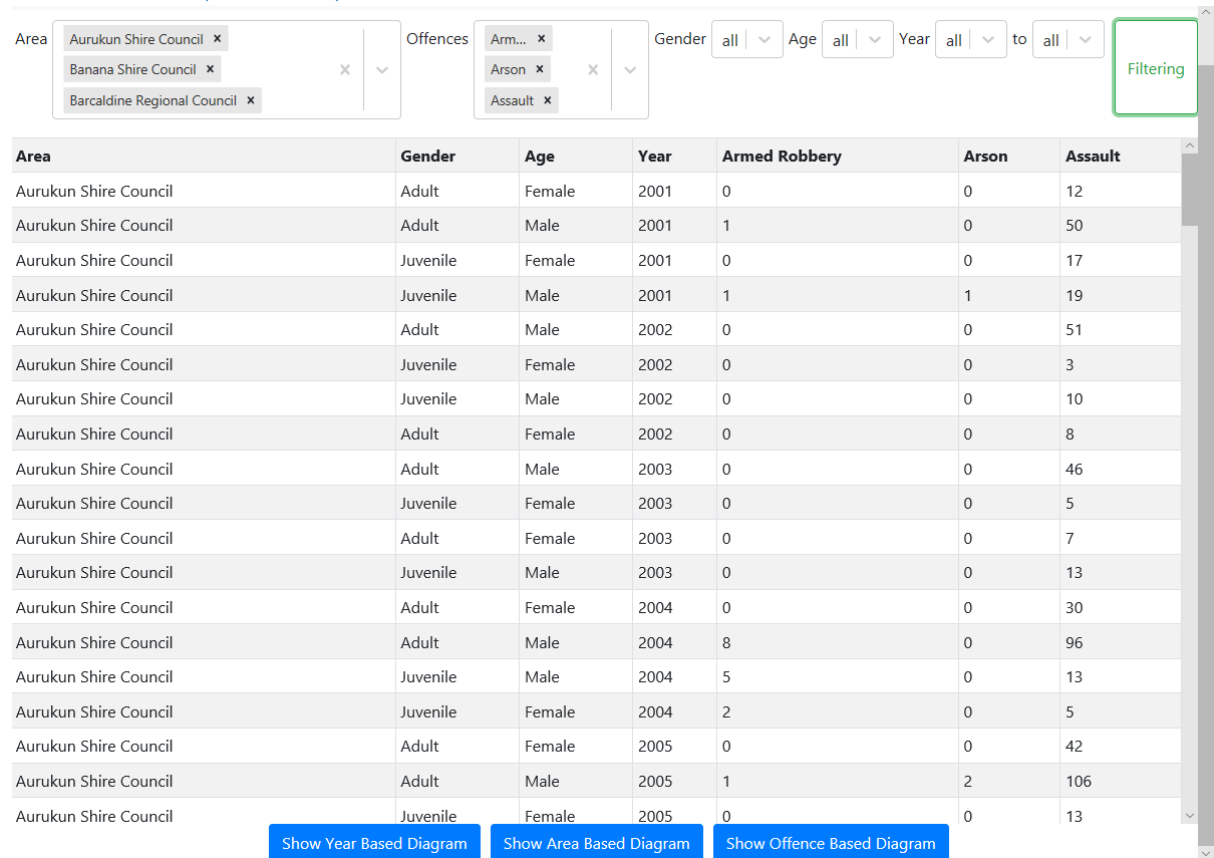


Figure 17

Figure 17 presents the function of 'Data Filter'. Users can get into this function by click 'Data Filter' in the navigation bar. In the page, users can select areas, offences, gender, age, and year range. Furthermore, the areas and offences are mandatory conditions. Also, users are not allowed to select more than five areas and offences. After deciding the condition, users should click 'Filtering' to query. Then, the results display in a table as it shows in Figure 17. Users can click buttons 'Show Year Based Diagram', 'Show Area Based Diagram' and 'Show Offence Based Diagram' to view the graphic expression of the query results.