## Introduction

This Client react app has approached level 7 Criteria which means client side has attempted to complete all requirement written in the client-side specification document.

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| **Client- side Features** | **States** |
| Register Feature | DONE |
| Login Feature | DONE |
| Open & authenticated routes | DONE |
| React Web APP | DONE |
| Search function | DONE |
| Data tables | DONE |
| Data table with sortable column header | DONE |
| Successful processing of all end-points | DONE |
| Data Filtering | DONE |
| Data Graphing | DONE |
| Data Mapping | DONE |
| Logout Feature | DONE |

## Features demonstration

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| **Features** | **Screen-shots** |
| **Register Feature:**   * Users are able to register an account, and this is the register page. * Form validations is implemented, whenever user submit the form, react will check whether all credentials information is provided. * If any error occurs including missing credentials and user already exist, the system will alert user * Once register successful, it redirects user to login page |  |
| **Login Feature:**   * Users are able to login to an existing account * Form validations is implemented, whenever user submit the form, react will check whether all credentials information is provided. * If any error occurs including missing credentials and user already exist, the system will alert user * Once login successful, it redirects user to authenticated page, and JWT token will be saved in local storage |  |
| **Authenticated routes**   * Once login successful, it redirects to panel page. |  |
| **Search function by Offences**   * User can type the offences that they are interested to know about. * This feature restricted user can only search the available offences provided by teaching team |  |
| **Data Mapping**   * After user chooses one offences, the map will automatically shows the location of those results |  |
| **Data Graphing**   * After user chooses an offences, this table will automatically appears to shows Top 5 the chosen offences in Australia * User are allowed to change the Default value Top 5 to Top any numbers. The example on right hand side, has changed it to top 6. (chart 1) * By hovering the chart, user can see the total of crimes in a location. (chart 2) | (chart 1) (chart 2) |
| **Data Table**   * After user chooses an offences, this table will automatically appears to shows the data table * Table 1: descending sort by Total column * Table 2: Ascending sort by LGA | (table 1) (table 2) |
| **Data Filtering**   * By Clicking the filter Button , an Advance search card pops up. User need to fill in the filter information to get the filter results. * All filter options are restricted, user is only allowed to choose the available options. * User needs to fill in the filter first before they choose an offence |  |
| **Logout Button**   * When user click the logout button, the JWT token will be removed from local storage, and user will be redirected to login page. |  |

## Technical description:

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| **Technical** | **Description** |
| React | JavaScript library for front-end development |
| Axios | Promise based http fetching Javascript library |
| recharts | Chart JavaScript library to show chart data |
| React select | This library is used for search function, with this select function helps, user are restricted to type in only available information |
| React table | React table helps the web app to shows Json format data in a table format |
| Leaflet Js | Leaflet library is used for mapping. By providing the correct JSON format, Leaflet library can show the data and location corrected on the map |
| React Router Dom | This library helps the react app for all redirect features |
| Font awesome | This is a library for icons. Helps the website looks prettier |
| Google font | Font library from Google, helps website more profession |
| css | Css is a style sheet language helps the web app looks better. The whole client side app didn’t use any css framework or libraries. |
| Yarn | Fast, reliable, better dependency management |

## Testing and limitations – test plan, results, compromises.

## References

## Appendix

Instruction for running the application

1. yarn
2. yarn start