## Introduction

This is the server slide report for CAB230 assessment. This server slide application has implemented all requirement. The table below shows the completion of the application

|  |  |
| --- | --- |
| **End point** | **states** |
| /register | DONE |
| /login | DONE |
| /search | DONE |
| /offences | DONE |
| /areas | DONE |
| /ages | DONE |
| /genders | DONE |
| /years | DONE |
| **Non-functional Requirement** | **States** |
| https | DONE |
| Password hashed | DONE |

## Technical description

|  |  |
| --- | --- |
|  |  |
| NodeJs | JavaScript environment http server |
| Express | Nodejs web framework for building API |
| Sequelize | Nodejs promise-based ORM |
| Bcrypt | Password hashing function for protecting passowords |
| Helmet | Express HTTPS security header. Increase the security of the express |
| Json web token (JWT) | RFC 7519 standard authorization token signature signed by private key |
| Mysql | Open-source relational database management system |

## Security

JWT

Hashed password

Helmet header

https

## Testing and limitation

For testing the API, the server side has implemented swaggerJS in order to try out the api result

manually.The testing swagger testing link is: <https://172.22.30.8:8443/>

### Testing Scenario: Register

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Case** | **Request** | **Response** | **Result** |
| Register with a new user email | **Request URL:**  <https://172.22.30.8:8443/register>  **Request body:**  {  "email":"newUsesr@gmail.com",  "password":"demouserpassword"  } | **Code status:** 201  **Response body:**  {  "message": "yay! you've successfully registered your user account :)"  } | CORRECT |
| Register a existing user email | **Request URL:**  <https://172.22.30.8:8443/register>  **Request body:**  {  "email":"newUsesr@gmail.com",  "password":"demouserpassword"  } | **Code status:** 400  **Response body:**  {  "message": "oops! It looks like that user already exists :("  } | CORRECT |

### Testing Scenario: Login

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Case** | **Request** | **Response** | **Result** |
| Login with an existing user email | **Request URL:**  https://172.22.30.8:8443/login  **Request body:**  {  "email":"newUsesr@gmail.com",  "password":"demouserpassword"  } | **Code status:** 201  **Response body:**  {  "token": "eyJhbGciOiJIUzI1NiIsInR5cCI6Ik  pXVCJ9.eyJ1c2VyIjp7ImlkIjo2LCJl  bWFpbCI6Im5ld1VzZXNyQGdtYWlsLmN  vbSJ9LCJpYXQiOjE1NTkyMTI2MTksIm  V4cCI6MTU1OTI5OTAxOX0.itV5MMWB9  H0Fxtn7NQKFobBbxue7PPsrqCnZ5uF4  1Gs",  "access\_token":  "eyJhbGciOiJIUzI1NiIsInR5cCI6Ik  pXVCJ9.eyJ1c2VyIjp7ImlkIjo2LCJl  bWFpbCI6Im5ld1VzZXNyQGdtYWlsLmN  vbSJ9LCJpYXQiOjE1NTkyMTI2MTksIm  V4cCI6MTU1OTI5OTAxOX0.itV5MMWB9  H0Fxtn7NQKFobBbxue7PPsrqCnZ5uF4  1Gs",  "token\_type": "Bearer",  "expires\_in": 86400  } | CORRECT |
| Login with  Wrong user detail | **Request URL:**  https://172.22.30.8:8443/login  **Request body:**  {  "email":"newUsesr@gmail.com",  "password":"wrongpassword"  } | **Code status:** 400  **Response body:**  {  "message": "invalid login - bad password"  } | CORRECT |

### Testing Scenario : Help

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Case** | **Request** | **Response** | **Result** |
| Get all offences | **Request URL:**  <https://172>.  22.30.8:8443  /areas | **Code status:** 200  **Response body:**  {  "offences": [  "Advertising Prostitution",  "Armed Robbery",  "Arson",  "Assault",  "Attempted Murder",  ...  ]  } |  |
| Get all Areas | **Request URL:**  <https://172>.  22.30.8:8443  /areas | **Code status:** 200  **Response body:**  {  "areas": [  "Aurukun Shire Council",  "Balonne Shire Council",  "Banana Shire Council",  "Barcaldine Regional Council",  "Barcoo Shire Council",  ...  ]  } | CORRECT |
| Get all ages | **Request URL:**  <https://172>.  22.30.8:8443  /ages | **Response body:**  {  "ages": [  "Adult",  "Juvenile"  ]  } | CORRECT |
| Get all genders | **Request URL:**  <https://172>.  22.30.8:8443  /genders | **Response body:**  {  "genders": [  "Female",  "Male",  "Not stated",  ]  } | CORRECT |
| Get all years | **Request URL:**  <https://172>.  22.30.8:8443  /years | **Response body:**  {  "years": [  2001,  2002,  ...  ]  } | CORRECT |

## References

## Appendix