For this assessment, an API was built using NodeJS that is able to register a user by sending the username, displayusername, password and timestamp through a POST request to <https://localhost:3000/api/signup>. Upon successful registration, the JWT token, displayusername and userid is returned in a response message. After signing up, the user is able to use the credentials with which they used to register, to login to the system. Like before, the user sends the username, password and timestamp via a POST request to <https://localhost:3000/api/session/signin>. If the credentials are correct, the JWT token, displayusername and userid is sent back. Attaching the JWT token into the authorization header allows access to other functions of the API.

The first function authorized using the JWT provided when registering and logging in is getting the profile of the user associated with the JWT attached. Getting the profile via a get request to <https://localhost:3000/api/getprofile> returns the user’s username, displayusername, and userid. The next function accessible is the update profile function which can be accessed at <https://localhost:3000/api/updateprofile>. Sending a post request with a new displayusename in the request body will change the displayusername to whatever is send in the request. If successful, a 200 status code will be returned along with an empty response body. Logging out is permitted by sending a post request to <https://localhost:3000/api/session/logout> which will return a status code of 200 and an empty response body if successful. Lastly, the user is able to get the list of cars registered in the database by sending a get request to <https://localhost:3000/api/getcarlist>. The user can enter a search term in the request body which will search for a car with a matching carname with the search term. The user can also specify the number of items to display per page and the page number they would like to view. Returned in the response are the cars that matched with the search terms and also the total number of results found.