## Explanation of the Implementation

This project is a car rental web application designed to allow users to browse, filter, and book cars based on their preferences. The application integrates a backend API, a responsive frontend, and a relational database to provide a seamless user experience.

The backend was developed using Spring Boot, which was chosen for its robust support for REST API development and easy integration with MariaDB. The frontend was implemented with plain HTML, CSS, and JavaScript, along with external libraries like jQuery and Daterangepicker for interactive features. MariaDB was selected as the database due to its simplicity and strong support for relational data management.

The implementation involved creating a Spring Boot API to handle operations like car filtering based on brand and transmission type, and managing user accounts. The frontend connects to this API using fetch requests and displays data dynamically. The database was set up to store car details and user information, ensuring data consistency and quick access.

The project was tested using Postman for API endpoints and manual testing of the user interface. This portfolio demonstrates the effective integration of backend, frontend, and database technologies to build a fully functional web application.