This sample application requires users to register, login and search for cars based on common criteria such as the make, manufactured year, color and more. The application itself is built using the ASP.NET MVC framework.

It has the following features:

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| **User Management** | |
| Registration | In order to search for vehicles, the users will need to register with the site by providing an email and password. The service validates the email and password for strength and stores in the database. Passwords are stored as a hash in the database and can be reset by the users. |
| Authentication | In order to search for cars, the users will have to login to the portal using their email ID and password already registered with the site. |
| **Website feature highlights** | |
| List all available vehicles | The website default view lists all inventory stored in the database. |
| Validations | When adding new vehicles, validation is performed to maintain data integrity. All vehicles require the image, owner’s name  The manufactured year is validated. |
| View vehicles | Images of the vehicles is displayed in the default list view of all the vehicles. |
| Pagination | Given the potential for a large list of vehicles, the website provides a paginated view. The number of vehicles per page is fixed in the current implementation but could be enhanced to allow the user to configure the number of entries per page. |
| Search and sort capabilities | Given the potential large list of vehicles, the current implementation allows to search for vehicles by Make.  The list can be sorted by specific fields such as Make, Year of manufacture, Image of the vehicle. |
| Car Inventory | Vehicles added to the inventory can be edited or deleted |
|  | When searching the inventory, the application provides the following search and sorting capabilities:   1. Vehicle can be searched by Make. (for e.g., Toyota, Chevrolet, Honda, Ford etc.) 2. Vehicles can be sorted alphabetically ascending and in descending order by Make, Image and by inventory date. 3. Images are made mandatory for all vehicles |
| Database implementation details for vehicles | The application uses a MS SqlServer LocalDB for this implementation. The database consists of the following tables:   1. Cars – contains the following properties – Make, Color, Year, Owner Last Name, Image File, Description 2. Car Types – Type Name   The Cars table contains a n..1 relationship to Car Types. |