

Workshop 01

Building an Automobile Management Web Application

Introduction

Imagine you're an employee of an online car retailer named **Automobile eStore**. Your manager has asked you to develop a Web application for automobile management (CarID, CarName, Manufacturer, Price, and ReleasedYear). The application has to support adding, viewing, modifying, and removing products. A standardized usage action verbs better known as Create, Read, Update, Delete (CRUD).

This workshop explores creating an application using Java Web Project. An **SQL Server Database** will be created to persist the car's data that will be used for reading and managing automobile data by **JDBC**

Objectives

In this workshop , you will be:

- Develop an Java Web Application by HTML , JSP and Servlet
- Perform CRUD actions using JDBC
- Create a SQL Server database named MyStock that has a Cars table.
- Use LINQ in Java to query and sort data (optional)
- Apply to validate data type for all fields.
- Run the project and test the Java Web Application actions.

MyStock Database

T470S.MyStock - Diagram_0* ✕					
Cars					
	Column Name	Condensed Type	Nullable	Identity	
🔑	CarID	int	No	<input type="checkbox"/>	
	CarName	varchar(50)	No	<input type="checkbox"/>	
	Manufacturer	varchar(50)	No	<input type="checkbox"/>	
	Price	money	No	<input type="checkbox"/>	
	ReleasedYear	int	No	<input type="checkbox"/>	
				<input type="checkbox"/>	

T470S.MyStock - dbo.Cars ✕					
	CarID	CarName	Manufacturer	Price	ReleasedYear
	1	Accord	Honda Motor Company	24970.0000	2021
	3	Clarity	Honda Motor Company	33400.0000	2021
	4	BMW 8 Series	BMW	85000.0000	2021
▶	5	Audi A6	Audi	14000.0000	2020

The user interface of the web application as follows:

Home page

AutomobileWebApp [Home](#) [Privacy](#)

Car List

[Create New](#)

CarId	CarName	Manufacturer	Price	ReleasedYear	
1	Civic 2.0	Honda	34000.00	2021	Edit Details Delete
2	BMW 523i	BMW	100000.00	2021	Edit Details Delete
3	Clarity	Honda Motor Company	33400.00	2021	Edit Details Delete
4	BMW 8 Series	BMW	85000.00	2021	Edit Details Delete
5	Audi A8	Audi	16000.00	2020	Edit Details Delete

Click **Edit** link and display the result as the below figure, enter the values on text fields then click **Save** to update the car.

Update Car

CarId	<input type="text" value="1"/>
CarName	<input type="text" value="Civic 2.0"/>
Manufacturer	<input type="text" value="Honda"/>
Price	<input type="text" value="34000.00"/>
ReleasedYear	<input type="text" value="2021"/>
<input type="button" value="Save"/>	

Click **Details** link to view Car details.

Car Details

Car

CarId	1
CarName	Civic 2.0
Manufacturer	Honda
Price	34000.00
ReleasedYear	2021

[Edit](#) | [Back to List](#)

Click **Create New** link and display the result as the below figure, enter the values on text fields then click **Save** to add a new car.

Add New Car

CarId

CarName

Manufacturer

Price

ReleasedYear

Click **Delete** link and display the result as the below figure. Click Delete button to remove Car

Delete

Are you sure you want to delete this?

Car

CarId	5
CarName	Audi A8
Manufacturer	Audi
Price	16000.00
ReleasedYear	2020

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