

C240 Full Stack Development Using Java and React (2206)

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Car Dealership

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For this assessment, you will create an application that allows car dealership users to manage their inventory and **retail** users to search for cars.

Wireframes

Download here: [Car-Dealership-Wireframes.pdf](#)

Keep in mind that specifications in the real world are rarely complete or 100% correct, so treat your assigned instructor as the business owner of this project and be sure to direct any clarifying questions about the specifications to them. Reach out to other instructors or teaching assistants for technical assistance.

The provided wireframes should be used to intuit the database structure.

Home/Index

This is the entry point for the public to the application.

- A standard Bootstrap navigation bar should appear with a placeholder logo.
- A Bootstrap jumbotron should appear as the main banner for this page.
 - This banner should have a background image. This image may be a solid/plain color.
 - Specials information should be stored in the database. Each special that is present in the database should be rotated through the jumbotron. Thus, if there are 5 specials in the database, the jumbotron should rotate through the 5 specials.
 - Clicking on a special should send the user to the specials page (home/specials).
- A short list of featured vehicles should appear below the specials jumbotron.
 - Vehicles only show up in this area if they are marked as featured in the admin/editvehicle page.

Inventory/New

This allows users to search the new vehicle inventory of the site.

- No search results should be shown by default
- Searches should be dynamic, such that if a filter is not provided (ex: choosing "No Min" on price) then minimum price should not be a factor in the search.
- The "make, model, or year" textbox, when filled in, should perform a LIKE query that searches all 3 columns in the database. 'fo' should match all 'Ford' makes as well as a Subaru 'Forrester'.
- The search should utilize an AJAX call via jQuery.
- Only the first 20 matches should be returned.
- Leaving the filters blank and hitting search should return the 20 vehicles with the highest MSRP.
- Only vehicles with a type of 'New' should be returned in this search.

Inventory/Used

Use the same rules and logic from the Inventory/New page excepting that this search should only return vehicles with a type of 'Used'.

Inventory/Details/id

This page should load the vehicle information with the appropriate database id.

- The "Contact Us" button should automatically put the VIN # into the message text box of the contact page.
- If the vehicle has been purchased, the "Contact Us" button should be removed and replaced with a label that reads "Unavailable"

Home/Specials

This is a list of all the specials information from the database. An administrator deletes specials when they are no longer needed.

Home/Contact

This form should put a contact record in the database.

- Name and message are required.
- If the contact button on the Inventory/Details page was used to navigate here, the VIN # of the vehicle should be placed in the message field.
- Either email or phone must be provided. Leaving both empty should cause a validation error.
- Embed a Google map to the address of the dealership. You may make up any address you like for the dealership for this assignment. Instructions to embed a Google map can be found on the Google Maps documentation site.

Sales/Index

This page should only be accessible to users in the "Sales" role.

- This search should behave the same as the New and Used inventory searches with two exceptions:
 - It searches both New and Used inventory simultaneously.
 - A purchase button is listed on each result.
 - Vehicles that have already been purchased should not show up in search results.
- The search should utilize a jQuery AJAX call.

Sales/Purchase/id

This page allows a salesperson to log a purchase. It is only accessible to users in the "Sales" role.

- Either phone or email (or both) must be present to complete a purchase.
- Street 2 is optional.
- All other fields are required.
- Zip code must be 5 digits.
- Email must be a valid email format if provided.
- The purchase price cannot be less than 95% of the sales price.
- The purchase price cannot exceed the MSRP.
- The purchase types are:
 - Bank Finance
 - Cash
 - Dealer Finance
- Upon saving purchase information in the database the vehicle should no longer show up in inventory searches and should be viewed on the sales report.
- The purchase date should be saved (today).
- The sales person should be saved (currently logged in user).

Admin/Vehicles

This page allows admin to edit inventory.

- It should only be accessible to users in the "Admin" role.
- It should only show inventory that is available for purchase.
- The search should utilize a jQuery AJAX call.

Admin/AddVehicle

This page allows adding vehicles to inventory.

- Only "Admin" role users may access this page.
- Make should be populated from the database.
- When a make is selected, the model combo box should filter to only show models associated with the selected make.
 - a. Use a jQuery AJAX call to retrieve models associated with a given make.
- The type will be either New or Used.
- The body styles are Car, SUV, Truck, and Van.
- Year must be a 4 digit year between 2000 and the current year + 1
- Transmission should be Automatic or Manual
- Color and Interior colors should be a standard list of colors found in automobiles. For this assignment simply provide at least 10 colors to choose from.
- If the type is new, mileage should be between 0 and 1000. Used vehicles must be 1000+.
- VIN # is required. For extra credit research the VIN # format and enforce it. (optional)
- MSRP and Sale Price must be a positive number. Sale Price must not be greater than MSRP.
- A description is required.
- A picture is required.
 - Picture uploads must be .png, .jpg, or .jpeg format.
 - The uploaded file name should be ignored. Files should be named 'inventory-x' where x is the database ID of the vehicle.
 - Images should be stored in a folder called images/ in the UI project.
- Upon saving the page should be redirected to Admin/EditVehicle

Admin/EditVehicle

This page allows editing vehicles in inventory.

- Only "Admin" role users may access this page.
- The same rules as Admin/AddVehicle apply to this page with some exceptions.
 - A picture is optional. If a picture is uploaded, it should replace the existing picture in the images/ folder.
- The "feature this vehicle" box, when checked, should show this vehicle on the Home/Index page.
- The delete button, when pressed, should prompt the user whether they are sure before deleting.
- Deleting a vehicle should also delete the image file from the images/ folder.

Admin/Users

This page allows viewing application users.

- Only "Admin" role users may access this page.
- Users may not self-register, so no registration page should be provided. Admin users add all other users to the system manually.

Admin/AddUser

Allows for adding a new user.

- Only "Admin" role users may access this page.
- All fields on this form are required.
- The roles are Disabled, Sales, and Admin.

Admin/EditUser

Allows for editing a user.

- Only "Admin" role users may access this page.
- The password and confirm password fields will change a user's password if filled in, otherwise the password should remain the same.
- If a user is changed to the "Disabled" role their login information should be rejected when they attempt to login to the site
 - The sales report should still show data for disabled users.

Account/ChangePassword

Allows a user to change their password.

- Only "Admin" and "Sales" roles may access this page.

Admin/Makes

Allows an admin to add a new make.

- Only "Admin" roles may access this page.
- Makes may not be deleted, only added.

Admin/Models

Allows an admin to add a new model.

- Only "Admin" roles may access this page.
- Models may not be deleted, only added.

Admin/Specials

Allows an admin to add and remove specials

- Only "Admin" roles may access this page.
- Deleting a special should prompt for confirmation before deleting.
- Title and Description are required.

Reports/Index

Provides a list of system reports.

- Only "Admin" roles may access this page.

Reports/Sales

Provides an aggregate of total sales and count of vehicles sold for sales staff.

- Only "Admin" roles may access this page.
- Search should be a jQuery AJAX call.
- If no filters are provided, sales for all time should be returned.
- If filters are provided the query should filter accordingly by user and/or date range.
- Omitting the "from date" means "sales for all time up to the to date".
- Omitting the "to date" means "all sales after the from date"

Reports/Inventory

Provides an aggregate of new and used vehicles in stock and their stock value.

- Only "Admin" roles may access this page.
- Data should be grouped by year, make, and model.
- Stock value is the sum of the MSRP of the vehicles.

Account/Login

This page should not be linked in the navigation bar as we do not want the public to see it. This page and the change password page will be navigated to directly by our staff who will bookmark the links.

Submission status

Submission status	No attempt
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Grading status	Not graded
Last modified	-
Submission comments	▶ Comments (0)

Add submission

You have not made a submission yet.

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