**Grouped Vehicle Display**

* **Main rows** show unique vehicle combinations with expandable/collapsible functionality
* **Sub-rows** display year-specific details (Year, Mileage, System Price, Manual Price, Actions)
* **Smart grouping** by Make + Model + Transmission + Fuel Type + Engine CC + Mapped Model

**Enhanced UI/UX**

* **Expand/Collapse controls** with chevron icons for each group
* **Expand All / Collapse All** buttons for bulk operations
* **Variant counter** showing how many year variants exist for each group
* **Year range display** showing the span of available years

**Improved Data Organization**

* **table structure** with proper styling and hover effects
* **Color-coded pricing** with override indicators
* **Last updated information** with user attribution
* **Responsive design** that works on all screen sizes

**Advanced Filtering**

* **Search functionality** across make, model, and mapped model names
* **Multi-criteria filtering** by make, fuel type, transmission, and year
* **Real-time filtering** with instant results
* **Filter persistence** while expanding/collapsing groups

**Professional Styling**

* **Clean visual hierarchy** with proper spacing and typography
* **Consistent color scheme** using the established design system
* **Smooth animations** for expand/collapse interactions
* **Mobile-responsive** layout with horizontal scrolling for tables

Vehicle Price Management System, including the new requirement to upload unregistered models via Excel:

✅ Key UI Features & Functionality

1. User Login Page Role-based login (e.g., Admin, Valuator)

Credential fields in UI: Email/Username + Password

Secure, password-protected access

Optional: Remember me, Forgot password

1. Dashboard Overview 📊 Total Registered Vehicles

📊 Total Unregistered Entries

📦 Mapped Model Counts (group by map\_model\_name)

🛠️ Total Price Change Requests Handled

🔍 Quick Stats:

Highest & Lowest Predicted Prices

Recently Edited Models

Models with Most Overrides

1. Vehicle Listings Page – Registered Vehicles Source: transformed\_table\_data\_riyasewana.csv

🧾 List all vehicles with key details

🔎 Filters:

Make, Model, Year (YOM), Fuel Type, Transmission

Engine Capacity, Mileage, Price Range

🔍 Search by model/make

📛 See Mapped Model Name (from model\_mapped.csv)

💰 View Current System Price

✏️ View/Edit Manual Price (inline edit or modal)

📜 View Change History Logs

🔧 Price Edit Popup Show:

System predicted price

Input field for new override price

Optional reason for change

Save & auto-log with timestamp + user

Notify team if needed

1. Unregistered Vehicles Page Source: unregistered.csv

🧾 List of all unregistered/new entries

🔎 Filters + Search

✏️ Editable Fields:

Price, Mileage, Engine Capacity

➕ Add New Unregistered Vehicle

Manually via form

✅ Bulk Upload via Excel

Validate duplicates

Show preview before save

1. Model Mapping Manager Source: model\_mapped.csv

📜 Table of model mappings

🔎 Filter by make or model

✏️ Edit existing mappings

➕ Add new mapping if model not found

Optional bulk upload of mappings via Excel

1. Search & Quick Access 🔍 Global search bar with auto-suggestions

Filters by all major fields: model, price, YOM, make, etc.

🧾 Export filtered results to CSV

1. Insights & Analytics 📈 Average price by model or make

📉 Graphs: Price vs. Engine CC, Price vs. YOM

📆 New models added weekly

🔁 Models most frequently edited

1. Add New Vehicle Entry (Manual) Form to enter a new registered or unregistered vehicle

Fields:

Make, Model, YOM, Transmission, Fuel Type

Engine CC, Mileage, Price

Option to:

Assign to existing mapped model

Create new mapping on the fly

1. Audit Trail / Logs (Optional but Recommended) Track:

Who edited what and when

Which price or mapping was updated

Show logs in a collapsible section or modal

Filter logs by user/date/type suggest professional clean err feeree react system

## Core Tables and Their Purpose

### 1. users (for login/authentication)

| **Column** | **Type** | **Notes** |
| --- | --- | --- |
| id | UUID (PK) |  |
| email | VARCHAR | unique |
| username | VARCHAR | optional or fallback login |
| password\_hash | TEXT | hashed |
| role | VARCHAR | 'admin' or 'valuator' |
| created\_at | TIMESTAMP |  |

### 2. vehicles (registered vehicles)

| **Column** | **Type** | **Notes** |
| --- | --- | --- |
| id | UUID (PK) |  |
| make | VARCHAR |  |
| model | VARCHAR |  |
| transmission | VARCHAR |  |
| fuel\_type | VARCHAR |  |
| engine\_cc | INTEGER |  |
| mapped\_model\_id | FK → mapped\_models.id | Optional |
| created\_at | TIMESTAMP |  |

### 3. vehicle\_variants (year-specific prices, mileage, overrides)

| **Column** | **Type** | **Notes** |
| --- | --- | --- |
| id | UUID (PK) |  |
| vehicle\_id | FK → vehicles.id |  |
| yom | INTEGER | Year of manufacture |
| mileage | INTEGER |  |
| system\_price | BIGINT | Predicted price |
| manual\_price | BIGINT | Admin override (nullable) |
| price\_change\_reason | TEXT | Optional |
| last\_updated\_by | FK → users.id | Admin who updated |
| last\_updated\_at | TIMESTAMP |  |

### 4. unregistered\_vehicles

| **Column** | **Type** | **Notes** |
| --- | --- | --- |
| id | UUID (PK) |  |
| make | VARCHAR |  |
| model | VARCHAR |  |
| transmission | VARCHAR |  |
| fuel\_type | VARCHAR |  |
| engine\_cc | INTEGER |  |
| mileage | INTEGER |  |
| price | BIGINT |  |
| source | VARCHAR | e.g., "excel", "manual" |
| created\_by | FK → users.id |  |
| created\_at | TIMESTAMP |  |

### 5. mapped\_models

| **Column** | **Type** | **Notes** |
| --- | --- | --- |
| id | UUID (PK) |  |
| make | VARCHAR |  |
| model\_name | VARCHAR | e.g., 'Prius' |
| mapped\_name | VARCHAR | e.g., 'Toyota Prius Gen 4' |
| created\_by | FK → users.id |  |
| created\_at | TIMESTAMP |  |

### 6. price\_change\_logs

| **Column** | **Type** | **Notes** |
| --- | --- | --- |
| id | UUID (PK) |  |
| variant\_id | FK → vehicle\_variants.id |  |
| old\_price | BIGINT |  |
| new\_price | BIGINT |  |
| reason | TEXT |  |
| updated\_by | FK → users.id |  |
| updated\_at | TIMESTAMP |  |

### 7. upload\_batches (Excel file uploads)

| **Column** | **Type** | **Notes** |
| --- | --- | --- |
| id | UUID (PK) |  |
| file\_name | VARCHAR |  |
| uploaded\_by | FK → users.id |  |
| upload\_type | VARCHAR | 'unregistered', 'mapped\_models' |
| uploaded\_at | TIMESTAMP |  |

## 🔗 Relationships Summary

plaintext

CopyEdit

users

└──< vehicle\_variants.last\_updated\_by

└──< unregistered\_vehicles.created\_by

└──< mapped\_models.created\_by

└──< price\_change\_logs.updated\_by

vehicles

└──< vehicle\_variants

└──< unregistered\_vehicles (loosely related, not FK)

vehicle\_variants

└──< price\_change\_logs

mapped\_models

└──< vehicles.mapped\_model\_id

Er diagram

vehicles