



### Changes to Vehicle Entity

- We decided to extrapolate the original TypeAndAttribute composite mult-valued attribute in the Vehicle Entity into a mandatory disjoint subclass of the vehicle types. Each vehicle will be related to one vehicle type and will have their respective attributes.
- Separated out the manufacturer attribute into a separate entity that is connected to the vehicle entity in a 1:N relationship
- Separated out the color attribute into a separate entity that is connected to the vehicle entity in a M:N relationship (Vehicle has total participation).
- Removed ClerkName because it is a foreign key.
- Removed ListPrice because it is a derived value.
- SoldDetails moved out of Vehicle Entity.

### Changes to Sales Transaction Relationship

- SoldDetails moved under the Sales Transaction Relationship.
- From SoldDetails we removed SalespeopleUsername (foreign key) and CustomerId (surrogate key)
- Sales Transactions (Vehicle->Salesperson->Customer) updated to a N:1:1 relationship from 1:1:1

### Changes to Repairs Entity

- Converted the composite Parts attribute in the Repairs Entity into a weak entity that have a N:1 identifying relationship to Repairs.
  - The weak primary key is part number.
- Removed RelatedVIN and ServiceWriterName because they are foreign key
- Repair-For-Customer is no longer an identifying relationship

### Changes to Customer Entity

- Converted the Customer-Business-Individual from a mandatory disjoint super/subclass into a Union type instead where Customer is the union of Business and Individual.
- Changed address attribute into a composite attribute containing street address, city, state, zip code

### Changes to User

- Replaced 'disjoint' with 'overlap' since 'Owner' overlaps with any other types.
- Added UserType as a identifying attribute for the various subclasses of Owner, InventoryClerk, etc