### Statement of Goals

A client is running a custom car manufacturing firm. They hand build custom cars to order. They work with 5 different suppliers who all provide different parts. Supplier A provides tires, brakes, rims, exhaust, and bumpers. Supplier B provides radios, speakers, miscellaneous electronics, upholstery, and trim. Supplier C provides fiberglass, steel, and molded plastic parts. Supplier D provides engines, differentials, catalytic converters, fuel pumps, and axles. Supplier E provides radiators, fans, belts, compressors, and heater cores. The client needs to be able to accomplish the following tasks:

* Add a new type of item to inventory and associate it with a specific vendor.
* Add or update vendor information (name, email, phone)
* Update type of items in inventory (part name, associated vendor, quantity in stock, price per item)
* Add a new individual item to the inventory (each type like brake can have hundreds of individual items each with a unique serial number. If we have 50 brakes in stock, there should be at least 50 entries in table of individual parts with brake as their type and a unique serial number for each)
* Delete individual items from inventory (when a new car is built, it should be associated with the requisite parts by serial number and those should be marked as “used” in a status column, they should not be removed from the database. Items will be deleted if they are lost or defective)
* Search for low inventory (any item with less than 50 remaining in stock).
* Add new orders with a start date and completion date (this should automatically decrement inventory by the specified amount on the start date - this requires scheduling a task to run on a given date. This should also associate individual parts serial numbers with this build and mark those parts as “used” in the individual parts table).
* Delete orders (should mark any previously associated parts as unused). Update quantity in stock of any part.

### Functional Description

My application was able to create and connect to a SQL Database with three tables ( Order, Inventory, and Vendor). I also have created routes to find items in the Inventory by partID, partName, partType, vendorID, vendorIDandpartType, quantity, and status. I handled a number of common exceptions as well.

* First Run
* Create a New Database
* Service layer
* CRUD Operations

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