Operational Constraints
- Vehicles must have a unique alphanumeric VIN. Each vehicle type must have specific attributes with valid manufacturers listed in the table in the appendix. The vehicles must be chosen from the table in the appendix. The invoice price must include dollars and cents.
- The listed price of the vehicle must be calculated as 125% of the invoice price.
- Individual customers must record their first and last names, along with their driver;s license number. Business customers must record their business' tax identification number and business name along with the name of primary contact and their title.
- Vehicles bought by customers must go through a salesperson.
- Each repair must be associated with a vehicle. Each repair must have a start date, a completed date and the odometer reading of the vehicle, labor charges for the repair, as well as a description of the repair. A vehicle must not have more than one repair start on the same date, and a repair must be completed before a new one can be started.
- The total repair cost must be determined by combing the labor charges with the cost of all parts used for the repair.
- Reports for Roland and his managers must be via a link, button, or dropdown menu that can be displayed on the initial search page.
- Only certain types of reports need to be generated including sales by color, sales by type, sales by manufacturer, gross customer income, and repairs by manufacturer/type/model, below cost sales, average time in inventory, parts statistics, monthly sales.

Application Functionality Constraints
- All logged-in users must be identified using a unique username and a password.
- Anonymous access can only search for vehicles.
- All privileged users have the ability to look up and add customers to the system. It is only available when performing various transactions and not to be independently accessible.
- Besides lookup and adding customers to the system, salespeople only have access to searching available inventory, and entering sales transactions using the sales order form.
- Besides lookup and adding customers to the system, inventory clerks only have access to add new vehicles.
- Besides lookup and adding customers to the system, service writers only have access to enter the details of repairs using the repair form.
- Managers have view-only access to all information along with reports.
- Roland Around must be able to view all information and reports and must be able to do any activities.