

MEMO

DATE: November 9, 2020
TO: SLO Vintage Auto Development Teams
FROM: Larry Margaria
SUBJECT: Development Guidelines

TASK 5: BUSINESS DOCS / Car Sellers

1. Creating Tables:
 - a. For the Sales Invoice, Purchase Order, and Service Invoice, review the business document and determine which attributes are stored in the Sale Invoice table, which ones are derived (and only show up in views) and which come from other tables.
 - b. Car Sellers attributes: company name, contact name, street, city, state, zip, phone, fax. Create 5 car sellers.
2. Quality Control Check List:
 - a. Include reasonable CHECK, NOT NULL constraints.
 - b. Reference integrity as appropriate

RUNNING THE BUSINESS ... USING DML statements, do the following steps for each business transaction:
Comments: Vary who the sales agent is. Have one customer buy more than one vehicle.

3. Steps in buying a new vehicle ... add at least five new purchases (ideally each person in your team would conduct 2 or 3 transactions for this and each of the following business events).
 - a. Add new vehicle to Sales Table
 - b. Add new PO
 - c. Update PO with the manager who approves the purchase (note, this means that the manager approval FK is not required when the new PO is created, so modify your CREATE TABLE statement to allow NULLs.)
4. Steps in selling a car ... sell 5 cars, 3 with trade-ins, 2 without a trade-in.
 - a. Add Customer to Customer table as needed.
 - b. If customer is bringing in a trade in, add this vehicle to the Sales Vehicle table. Set status as TRADEIN.
 - c. If creating a PO for trade-ins:
 - i. Using an INSERT/SELECT subquery statement (see example in SQL book chapter on DML), copy customer data to the Car Seller table.
 - ii. Add new PO.
 - d. Add new Sales Invoice.
 - e. Update Sales Invoice for approval by Larry (or by sales manager).
 - f. Update status of vehicle sold to go from FORSALE to SOLD.
 - g. Update status of vehicle traded in from TRADEIN to FORSALE.
5. Steps in servicing a car ... service at least 6 cars, three which were ones we sold and three which have not been sold by us. Have one of the service invoices be for only one service, say a tire rotation. Have one of the service invoices be for only one part, say a quart of oil. Have one of the service invoices be for only one part and only one service. Have the other three services

include multiple services and parts.

OIL CHANGE: You are asked to add enough data to test a report that determines customers who need an oil change. One report will be proactive and the other reactive. Do the following:

- (A) Add two or more Service Invoices for two different vehicles for Oil Changes with a service date of more than six months ago. We will want to send them a message letting them know it is time for an oil change.
- (B) Add two or more service invoices for services other than oil changes with a service date sometime in the past year (note for each service invoice we record the vehicle's current mileage). Now have those two or more vehicles return this month for another service, again not an oil change. When recording their mileage assure that it is more than 6000 miles from the previous service event. (i.e., we wish to test a query that shows all the cars whose new mileage is greater than 6000 miles from their previous mileage recording and who have not had an oil change).

The service events can be interwoven with other ones but all must reflect the requirements mentioned.

Steps for servicing a car:

- a. Cars not sold by us
 - i. Add customer to customer table.
 - ii. Add customer's car to Service Vehicle table.
 - iii. Add new Service Invoice
 - iv. Add the service(s) the customer is buying to ServiceInv-Services table
 - v. Add the part(s) the customer is buying to the ServiceInv-Parts table
 - b. Cars sold by us
 - i. Add customer to customer table, if needed
 - ii. Add car to Service Vehicle table using an INSERT / SELECT subquery (see example in SQL book chapter on DML) copying the data from the Sales Vehicle table to Service Vehicle table.
 - iii. Add new Service Invoice
 - iv. Add the service(s) the customer is buying to ServiceInv-Services table
 - v. Add the part(s) the customer is buying to the ServiceInv-Parts table
6. Queries: Write the following SELECT statements that returns the following to test your work. Write these as CREATE VIEW statements.
- (Concatenate names with a blank between first and last name)
- a. Car Seller List: Company name, contact name, street, city, state, zip, phone, fax, ordered by Company Name.
 - b. Vehicle Sales List: Invoice Number, Sales person name, Approved by Name, VIN, Make, Model, Trade In Vin, Trade In Make, Trade In Model, Selling price, Shipping, Discount, Trade In Allowance, Subtotal, Taxes, Misc, Total Selling Price (Order by Invoice Number)
 - c. Vehicle Purchase List: Purchase Order Number, Company Name, Contact Name, VIN, Make, Model, Sales Amount, Shipping, Taxes, Total Price, Manager Name
 - d. Service Invoice List: Invoice Number, Customer Name, VIN, Make, Model, Mileage, Total Service Charge, Total Parts Charge, Total Charges, Taxes, Misc, Total Charges

Submission:

SCRIPT consisting of the following:

Comment statements with the names of your team members.

DROP TABLE

CREATE TABLE

BUSINESS TRANSACTIONS

CREATE VIEW