

Customer Database System

CS 4318 – Dr. Shengli Yuan

PHASE 1

Team Members:

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Abstract: For our project, we choose a customer database system. We will implement this project in a windows application using Visual Basic. Our customer database system design will have a user-friendly interface with quick response and flexible functionality. It will focus on automobile dealerships that are currently not using a database system or using Microsoft Excel. It will help to structure the information collected about the company's clients in one application accessed securely only by authorized employees. We will store the employee's credentials and customer information using Microsoft SQL Server. Information will include the client's contact details, purchase history, payment history, and years of communication history. It will provide the staff with all the valuable figures in seconds, from the person's name, phone number, address, and email to the date of the last purchase, assortment, and all the related questions and reclamations.

Mission Statement: Our customer database system will help access and manage customer records effectively, efficiently, and securely with the help of user-friendly interface application design.

Mission Objectives: The main objective of this program is to make it simple to access and modify customer data more securely. It should be able to allow staff to locate and access customer details with ease by searching either his/her name, phone number, address, or ID. Since it contains customer data, it should be secured by authorized accounts so unauthorized users are not able to access or modify any of the information.

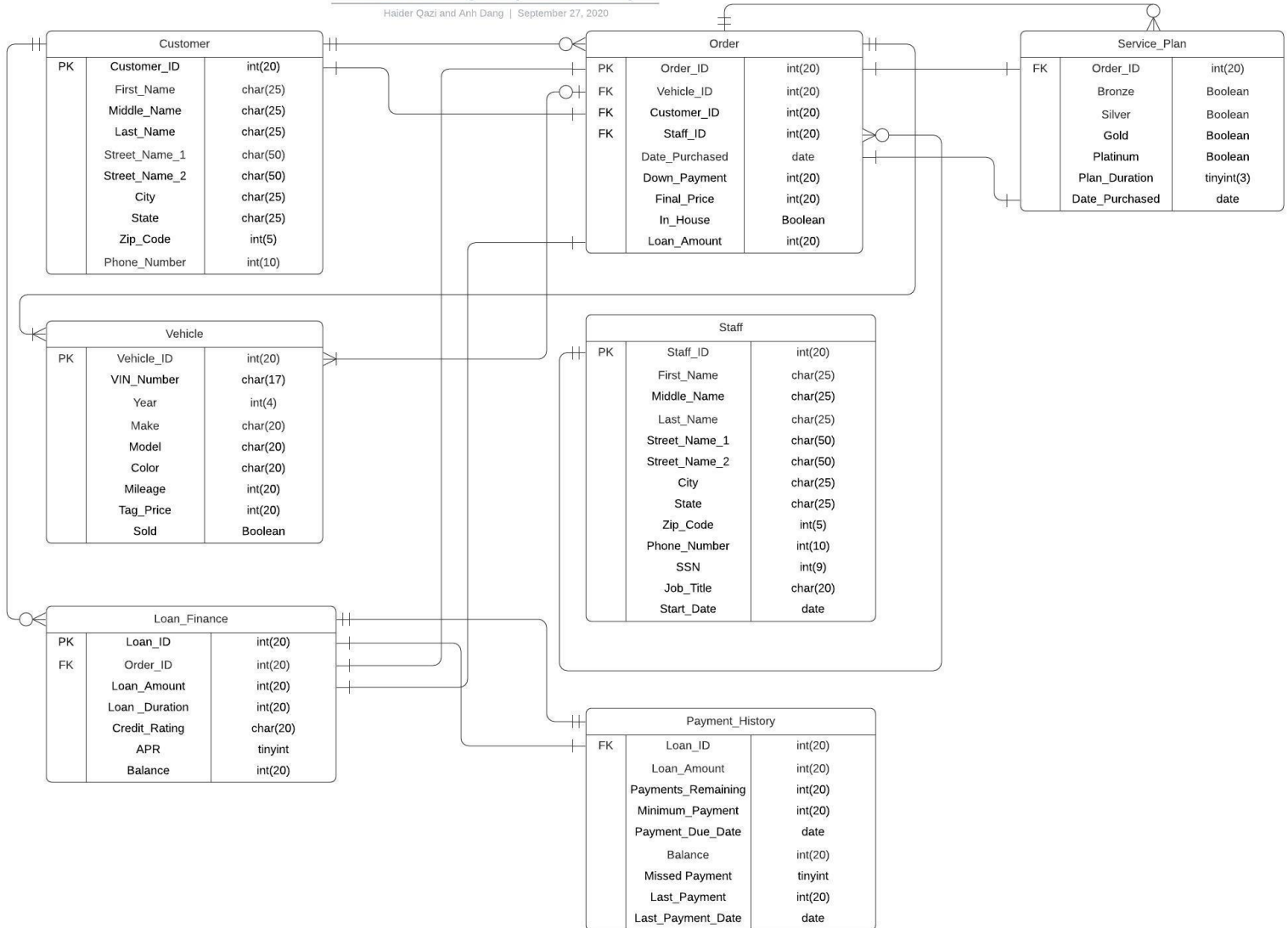
Major User Views:

Data	Access Type	Owner	Supervisor (Manager)	Salesman	Assistant
Branch	Maintain		X		
	Query	X	X		
	Report	X	X		
Staff	Maintain		X		
	Query	X	X		
	Report	X	X		
All Clients	Maintain		X		
	Query	X	X	X	X
	Report	X	X	X	

E/R Diagram:

DBMS ER diagram (UML notation)

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- Use Case 1:
 - Staff ID = 0001
 - First Name = John
 - Create New Order -> Enter Product ID -> Order ID will auto increment -> New Order Entry will be created.
- Use Case 2:

Staff ID = 0002

 - Search Customer Name -> Click on his/her Order ID -> Go to Loan Finance Tab -> Go to Payment History -> Delete last payment because charge back.
- Use Case 3:
 - Staff ID = 0003
 - Go to create new customer tab -> Fill in required entries -> New Customer Entry will be created in the database.
- Use Case 4:
 - Staff ID = 0001
 - Job Title = Supervisor
 - Go to add new employee -> Fill in required entries -> New employee entry will be created in the database.
- Use Case 5:
 - Customer Information Tab -> Update their phone number.
- Use Case 6:
 - Customer ID Tab -> Delete customer ID.

- Use Case 7:
 - Customer Order Tab -> Delete order ID.
- Use Case 8:
 - Go to customer order ID -> Update their down payment.
- Use Case 9:
 - Go to customer order ID -> Delete their down payment.
- Use Case 10:
 - Go to customer order ID -> Add new service plan.
- Use Case 11:
 - Go to customer order ID -> Delete current service plan.
- Use Case 12:
 - Go to customer order ID -> Update their current service plan.
- Use Case 13:
 - Go to inventory page -> Add new vehicle to the inventory.
- Use Case 14:
 - Go to inventory page -> Delete existing vehicle from the inventory.
- Use Case 15:
 - Go to inventory page -> Update existing vehicle information.
- Use Case 16:
 - Staff ID = 0002
 - Search Order ID 0035 -> Go to Loan Finance Tab -> Update Loan Amount.
- Use Case 17:

- Search Order ID -> Go to Loan Finance Tab -> Delete Loan Amount.
- Use Case 18:
 - Search Order ID -> Go to Loan Finance Tab -> Add new loan.
- Use Case 19:
 - Search Order ID -> Go to Loan Finance Tab -> Go to Payment History Tab -> Add new last payment.
- Use Case 20:
 - Search Order ID -> Go to Loan Finance Tab -> Go to Payment History Tab -> Update their minimum payment.
- Use Case 21:
 - For every order, there needs to be a customer.
- Use Case 22:
 - For every service plan, there needs to be an order.
- Use Case 23:
 - For every loan financing, there needs to be an order.
- Use Case 24:
 - For every payment history, there needs to be a loan financed.
- Use Case 25:
 - For every order, there needs to be a staff member.
- Use Case 26:
 - For every order, there needs to be a vehicle.
- Use Case 27:
 - For every loan financed, there needs to be a customer.

- Use Case 28:
 - For every loan financed, there needs to be a not enough down payment to cover the final price.
- Use Case 29:
 - For every order date purchased, the service plan date purchase is the same.
- Use Case 30:
 - The loan amount under loan finance is the same as the loan amount under order.