# Used Auto Dealership Database System

CS 4318 – Dr. Shengli Yuan

PHASE 2

Team Members:

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Anh Dang

Actors/Users:

1. Owner
2. General Manager
3. Assistant Manager
4. Salesman
5. Assistant

Use Cases:

1. Use case name: INSERT a new Staff Member

   Actor/User: Owner

   Steps:

   a) User clicks on Staff Tab.
   b) User clicks on “New Staff” button.
   c) A new Staff ID is generated and displayed.
   d) Prompt user to enter Name, Address, Contact Information, DOB, Gender, Job Title, Salary, SSN, and Start Date.
   e) All information is displayed. Ask for confirmation.
   f) User clicks on “Confirm” button.
   g) New Staff entry is created, and his/her login credentials are generated.

   ```
   INSERT INTO `new_schema`.`Staff` (`First_Name`,  `Middle_Name`,
   `Last_Name`,`Street_Name_1`, `City`, `State`,  `Zip_Code`, `Phone_Number`, `SSN`,
   `Job_Title`)
   VALUES ('Justin', 'R', 'Smith', '12345 Street Name Dr', 'Houston', 'TX', '77370', '2811236950',
   '435134354', 'Salesman');
   ```

2. Use case name: DELETE a Staff Member

   Actor/User: Owner

   Steps:

   a) User clicks on Staff Tab.
   b) List of Staff Members is displayed.
   c) User selects the Staff Member to delete.
   d) User clicks on “Delete Staff” button.
   e) User clicks on “Confirm” button.
   f) Selected Staff Member is deleted from the Staff Table.

   ```
   DELETE FROM `new_schema`.`Staff`

   WHERE (`Staff_ID` = '103');
   ```

3. Use case name: UPDATE a Staff Member information.

   Actor/User: Owner

   Steps:

   a) Click on Staff Tab.
   b) List of Staff Members is displayed.
   c) User selects the Staff Member to update.
   d) Staff Member information is displayed.
   e) User updates the Staff Member information.
   f) User clicks “Update” button.
   g) User clicks “Confirm” button.
   h) Staff Member information is updated.

```
UPDATE `new_schema`.`Staff`
SET `Middle_Name` = 'T'
WHERE (`Staff_ID` = '104');
```

4. Use case name: QUERY a Staff Member.
   Actor/User: Owner
   Steps:
   a) User clicks on Search Staff Tab
   b) User is prompted with a search form fields.
   c) User enters Staff ID.
   d) The Staff Member is Highlighted.
   e) User Selects the Staff Member and information is displayed.

```
SELECT * FROM new_schema.Staff
WHERE Staff_ID
IN (104);
```

5. Use case name: INSERT a new Vehicle

   Actor/User: General Manager

   Steps:

   a) User clicks on Vehicle Tab.
   b) User clicks on “New Vehicle” button.
   c) A new Vehicle ID is generated and displayed.
   d) Prompt user to enter VIN number, Year, Make, Model, Color, Mileage, and Tag Price.
   e) All information is displayed. Ask for confirmation.

f) User clicks on “Confirm” button.
g) New vehicle entry is created.

```
INSERT INTO `new_schema`.`Vehicle` (`VIN_Number`, `Year`, `Make`, `Model`, `Color`, `Mileage`, `Tag_Price`)
VALUES ('7GJDV75HF75HF75FH', '2019', 'Toyota', 'Camry', 'Silver', '52000', '19000');
```

6. Use case name: DELETE a Vehicle

   Actor/User: General Manager

   Steps:

   a) User clicks on Vehicle Tab.
   b) List of Vehicles is displayed.
   c) User selects the Vehicle to delete.
   d) User clicks on “Delete Vehicle” button.
   e) User clicks on “Confirm” button.
   f) Selected Vehicle is deleted from the Vehicle Table.

```
DELETE FROM `new_schema`.`Vehicle`
WHERE (`Vehicle_ID` = '4');
```

7. Use case name: UPDATE a Vehicle information.

   Actor/User: General Manager

   Steps:

   a) Click on Vehicle Tab.
   b) List of Vehicle is displayed.
   c) User selects the Vehicle to update.
   d) Vehicle information is displayed.
   e) User updates the Vehicle information.
   f) User clicks “Update” button.
   g) User clicks “Confirm” button.
   h) Vehicle information is updated.

```
UPDATE `new_schema`.`Vehicle`
SET `Mileage` = '9000', `Tag_Price` = '17000'
WHERE (`Vehicle_ID` = '4');
```

8. Use case name: QUERY a Vehicle.
   Actor/User: General Manager
   Steps:
   a) User clicks on Search Vehicle Tab
   b) User is prompted with a search form fields.
   c) User enters Vehicle ID.
   d) The Vehicle is Highlighted.
   e) User Selects the Vehicle and information is displayed.

```
SELECT * FROM new_schema.Vehicle

WHERE Vehicle_ID

IN (4);
```

9. Use case name: INSERT a new Customer

   Actor/User: Assistant Manager

   Steps:

   a) User clicks on Customer Tab.
   b) User clicks on “New Customer” button.
   c) A new Customer ID is generated and displayed.
   d) Prompt user to enter Name, Address, and Contact Information.
   e) All information is displayed. Ask for confirmation.
   f) User clicks on “Confirm” button.
   g) New Customer entry is created.

```
INSERT INTO `new_schema`.`Customer` (`First_Name`, `Middle_Name`, `Last_Name`,
`Street_Name_1`, `City`, `State`, `Zip_Code`, `Phone_Number`)
VALUES ('Tom', 'T', 'Cruz', '4355 Hollywood Blvd', 'Los Angeles', 'CA', '34368', '3123456789');
```

10. Use case name: DELETE a Customer

    Actor/User: Assistant Manager

    Steps:

    a) User clicks on Customer Tab.
    b) List of Customers is displayed.
    c) User selects the Customer to delete.
    d) User clicks on “Delete Customer” button.
    e) User clicks on “Confirm” button.
    f) Selected Customer is deleted from the Customer Table.

```
DELETE FROM `new_schema`.`Customer`
WHERE (`Customer_ID` = '3');
```

11. Use case name: UPDATE a Customer information.

    Actor/User: Assistant Manager

    Steps:

    a) Click on Customer Tab.
    b) List of Customer is displayed.
    c) User selects the Customer to update.
    d) Customer information is displayed.
    e) User updates the Customer information.
    f) User clicks “Update” button.
    g) User clicks “Confirm” button.
    h) Customer information is updated.

```
UPDATE `new_schema`.`Customer`
SET `Phone_Number` = '8569785234'
WHERE (`Customer_ID` = '3');
```

12. Use case name: QUERY a Customer.
    Actor/User: Assistant
    Steps:
    a) User clicks on Search Customer Tab
    b) User is prompted with a search form fields.
    c) User enters Customer ID.
    d) The Customer is Highlighted.
    e) User Selects the Customer and information is displayed.

```
SELECT * FROM new_schema.Customer
WHERE Customer_ID
IN (3);
```

13. Use case name: INSERT a new Order

    Actor/User: Salesman

    Steps:

a) User clicks on Order Tab.
b) User clicks on “New Order” button.
c) A new Order ID is generated and displayed.
d) Prompt user to enter Vehicle ID, Customer ID, and Financial Information.
e) All information is displayed. Ask for confirmation.
f) User clicks on “Confirm” button.
g) New Order entry is created.

```
INSERT INTO `new_schema`.`Order` (`Vehicle_ID`, `Customer_ID`, `Staff_ID`, `Down_Payment`, `Final_Price`, `In_House`, `Loan_Amount`)
VALUES ('104', '100', '0004', '9000', '15000', '1', '6000');
```

14. Use case name: DELETE an Order

    Actor/User: Salesman

    Steps:

    a) User clicks on Order Tab.
    b) List of Order is displayed.
    c) User selects the Order to delete.
    d) User clicks on “Delete Order” button.
    e) User clicks on “Confirm” button.
    f) Selected Order is deleted from the Order Table.

```
DELETE FROM `new_schema`.`Order`
WHERE (`Order_ID` = '5');
```

15. Use case name: UPDATE an Order information.

    Actor/User: Salesman

    Steps:

    a) Click on Order Tab.
    b) List of Order is displayed.
    c) User selects the Order to update.
    d) Order information is displayed.
    e) User updates the Order information.
    f) User clicks “Update” button.
    g) User clicks “Confirm” button.
    h) Order information is updated.

```
UPDATE `new_schema`.`Order`
SET `Down_Payment` = '2000'
WHERE (`Order_ID` = '3');
```

16. Use case name: QUERY an Order.
    Actor/User: Assistant
    Steps:
    a) User clicks on Search Order Tab
    b) User is prompted with a search form fields.
    c) User enters Order ID.
    d) The Order is Highlighted.
    e) User Selects the Order and information is displayed.

```
SELECT * FROM new_schema.Order
WHERE Order_ID
IN (3);
```

17. Use case name: INSERT a new Service Plan

    Actor/User: Assistant Manager

    Steps:

    a) User clicks on Order Tab.
    b) User clicks “Search Order” button.
    c) User input Order ID.
    d) Order information is displayed.
    e) User clicks on add service plan.
    f) User is prompted to select the Bronze, Silver, Gold, Platinum and its duration.
    g) User clicks on “Confirm” button.
    h) New Service Plan entry is created.

```
INSERT INTO `new_schema`.`Service_Plan` (`Order_ID1`, `Bronze`, `Silver`, `Gold`, `Platinum`,
`Plan_Duration`,)
VALUES ('0005', '1', '0', '0', '0', '12');
```

18. Use case name: DELETE a Service Plan

    Actor/User: Assistant Manager

Steps:

a) User clicks on Order Tab.
b) User clicks “Search Order” button.
c) User input Order ID.
d) Order information is displayed.
e) User clicks on Delete service plan.
f) User clicks on “Confirm” button.
g) Service Plan is Deleted.

```
DELETE FROM `new_schema`.`Service_Plan`
WHERE (`Order_ID1` = '0005');
```

19. Use case name: UPDATE Service Plan duration.

Actor/User: Assistant Manager

Steps:

a) User clicks on Order Tab.
b) User clicks “Search Order” button.
c) User input Order ID.
d) Order information is displayed.
e) User clicks on Update service plan.
f) User change service plan duration.
g) User clicks on “Confirm” button.
h) Service Plan is Updated.

```
UPDATE `new_schema`.`Service_Plan`
SET `Plan_Duration` = '24'
WHERE (`Order_ID1` = '0006');
```

20. Use case name: QUERY a Service Plan.
Actor/User: Assistant
Steps:
a) User clicks on Search Order Tab.
b) User is prompted with a search form fields.
c) User enters Order ID.
d) User clicks on “Service Plan” button.
e) Service Plan information is displayed.

```
SELECT * FROM new_schema.Service_Plan

WHERE Order_ID1

IN (0007);
```

21. Use case name: INSERT a new Loan Finance.

    Actor/User: General Manager

    Steps:

    a) User clicks on Loan Finance Tab.
    b) User clicks on “New Loan” button.
    c) New Loan ID is generated and displayed.
    d) Prompt user to enter Order ID, Credit Rating, APR, Loan Amount, and Loan Duration.
    e) All information is displayed. Ask user for confirmation.
    f) User clicks on “Confirm” button.
    g) New Loan Finance entry is created.

```
INSERT INTO `new_schema`.`Loan_Finance` (`Loan_ID`, `Order_ID`, `Loan_Amount`, `Loan
_Duration`, `Credit_Rating`, `APR`, `Balance`)

VALUES ('0005', '0007', '9000', '12', 'Good', '12', '15000');
```

22. Use case name: DELETE a Loan Finance

    Actor/User: General Manager

    Steps:

    a) User clicks on Loan Finance Tab.
    b) List of Loans is displayed.
    c) User selects the Loan to delete.
    d) User clicks on “Delete Loan” button.
    e) User clicks on “Confirm” button.
    f) Selected Loan entry is deleted from the Loan Finance Table.

```
DELETE FROM `new_schema`.`Loan_Finance`

WHERE (`Loan_ID` = '00020');
```

23. Use case name: UPDATE Loan Finance.

    Actor/User: General Manager

Steps:

a) User clicks on Loan Finance Tab.
b) List of Loans is displayed.
c) User selects the Loan to update.
d) Loan Finance information is displayed.
e) User updates the Loan Finance information.
f) User clicks “Update” button.
g) User clicks “Confirm” button.
h) Loan information is updated.

```
UPDATE `new_schema`.`Loan_Finance`
SET `Loan_Duration` = '16'
WHERE (`Loan_ID` = '00067');
```

24. Use case name: QUERY a Loan Finance.
    Actor/User: Assistant
    Steps:
    a) User clicks on Loan Finance Tab.
    b) User clicks on “Search Loan” button.
    c) User is prompted with a search form fields.
    d) User enters Loan ID.
    e) The Loan is Highlighted.
    f) User Selects the Loan and information is displayed.

```
SELECT * FROM new_schema.Loan_Finance
WHERE Loan_ID
IN (00076);
```

25. Use case name: INSERT Last Payment to Payment History Table.

    Actor/User: Assistant Manager

    Steps:

    a) User clicks on Loan Finance Tab.
    b) User clicks on “Search Loan” button.
    c) User is prompted with a search form field.
    d) User enters the Loan ID.
    e) All information is displayed.
    f) User clicks on “Payment History” button.

g) Payment History information is displayed.
h) User clicks on Last Payment entry.
i) User updates the Last Payment information value.
j) Ask for confirmation.
k) User clicks on “Confirm” button.
l) New last payment entry is created.

```
INSERT INTO `new_schema`.`Payment_History (`’Last_Payment’)
VALUES (‘315’);
```

26. Use case name: DELETE Balance from Payment History Table.

    Actor/User: Assistant Manager

    Steps:

    a) User clicks on Loan Finance Tab.
    b) User clicks on “Search Loan” button.
    c) User is prompted with a search form field.
    d) User enters the Loan ID.
    e) All information is displayed.
    f) User clicks on “Payment History” button.
    g) Payment History information is displayed.
    h) User clicks on “Delete Balance” button.
    i) Balance attribute value turns to NULL.

```
DELETE FROM `new_schema`.`Payment_History`
WHERE (`Loan_ID` = '00027');
```

27. Use case name: UPDATE Payment History.

    Actor/User: Assistant Manager

    Steps:

    a) User clicks on Loan Finance Tab.
    b) User clicks on “Search Loan” button.
    c) User is prompted with a search form field.
    d) User enters the Loan ID.
    e) All information is displayed.
    f) User clicks on “Payment History” button.
    g) Payment History information is displayed.
    h) User clicks on Last Payment entry.

i) User deletes the Last Payment information value.
j) Ask for confirmation.
k) User clicks on “Confirm” button.
l) Last Payment information is updated in the Payment History Table.

```
UPDATE `new_schema`.`Payment_History`
SET `Last_Payment` = '400'
WHERE (`Loan_ID` = '00050');
```

28. Use case name: QUERY a Minimum Payment from Payment History Table.
    Actor/User: Assistant
    Steps:
    a) User clicks on Loan Finance Tab.
    b) User clicks on “Search Loan” button.
    c) User is prompted with a search form field.
    d) User enters the Loan ID.
    e) All information is displayed.

```
SELECT * FROM new_schema.Payment_History
WHERE Loan_ID
IN (00085);
```

29. Use case name: UPDATE BOTH Loan Finance and Payment History with ONE entry.

    Actor/User: Salesman

    Steps:

    a) User clicks on Loan Finance Tab.
    b) User clicks on “Search Loan” button.
    c) User enters the Loan ID and Selects the Loan.
    d) Loan Finance information is displayed.
    e) User changes the Loan Duration attribute value.
    f) User clicks on “Update” button.
    g) Loan Duration entry is Updated in the Loan Finance Table.
    h) The Payments Remaining and Minimum Payment is also updated under Payment History.

```
UPDATE `new_schema`.`Loan_Finance`
```

```
SET `Loan_Duration` = '16'

WHERE (`Loan_ID` = '00060');
```

30. Use case name: UPDATE BOTH Service Plan and Payment History Balance with ONE ENTRY.

    Actor/User: Salesman

    Steps:

    a) User clicks on Order Tab.
    b) User clicks on “Search Order” button.
    c) User enters Order ID.
    d) Order is highlighted and user selects the order.
    e) Order information is displayed.
    f) User clicks on “Service Plan” button.
    g) User updates the service package value.
    h) User clicks “Confirm”.
    i) Balance under Payment History entity is updated also.

```
UPDATE `new_schema`.`Service_Plan`

SET `Silver` = '1’

WHERE (`Order_ID’ = '0006');
```

31. Use case name: UPDATE BOTH Order Down Payment and Payment History Balance with one ENTRY.

    Actor/User: Salesman

    Steps:

    a) User clicks on Order Tab.
    b) User clicks “Search Order” button.
    c) User enters Order ID.
    d) Order is highlighted and user selects the order.
    e) Order information is displayed.
    f) User update Down Payment attribute value.
    g) User clicks “Update” button.
    h) User clicks “Confirm” button.
    i) Balance attribute under Payment History is also updated.

```
UPDATE `new_schema`.`Order`
```

```
SET `Down_Payment` = '12000'

WHERE (`Order_ID` = '0007');
```

32. Use case name: CREATE Order entry and Sold attribute under Vehicle is UPDATED.

    Actor/User: Salesman

    Steps:

    a) User clicks on Order Tab.
    b) User clicks on “New Order” button.
    c) User enters Vehicle ID and order information.
    d) New Order entry is created.
    e) Sold attribute under Vehicle is updated to True.

```
INSERT INTO `new_schema`.`Order’ (‘Vehicle_ID’)

VALUES (‘007’);
```

33. Use case name: QUERY Vehicle information inside Order.

    Actor/User: Assistant

    Steps:

    a) User clicks on Order Tab.
    b) User clicks “Search Order” button.
    c) User enters Order ID.
    d) Order is highlighted and user selects the order.
    e) Vehicle information is displayed inside Order.

```
SELECT * FROM new_schema.Order

WHERE Order_ID

IN (00087);
```

34. Use case name: QUERY Staff information inside Order.

    Actor/User: Assistant

    Steps:

    a) User clicks on Order Tab.
    b) User clicks “Search Order” button.

c) User enters Order ID.
d) Order is highlighted and user selects the order.
e) Staff information is displayed inside Order.

```
SELECT * FROM new_schema.Order

WHERE Order_ID

IN (0008);
```

# Project Timetable

## CAR DEALERSHIP DB PROJECT TIME TABLE

**ENTER START DATE:** 11/2/2020

| ACTIVITY | START | END | NOTES | Team Member |
|---|---|---|---|---|
| Final Phase Start | 11/2/2020 | | The final phase is to create the video demo and project report. | |
| Display ER Diagram | 11/2/2020 | 11/9/2020 | Create a short video demo showcasing the ER diagram. | Haider Qazi |
| For each table, perform a query to show all data | 11/4/2020 | 11/11/2020 | Fill in table in MySQL Workbench and create short video showing table queries. | Haider Qazi & Anh Dang |
| For each table, perform a query using at least one of the aggregate functions | 11/6/2020 | 11/13/2020 | For each table, write SQL codes that perform queries. Show in short video. | Haider Qazi & Anh Dang |
| For each relationship, perform a joint query on the tables that are DIRECTLY related through that relationship. | 11/8/2020 | 11/15/2020 | Perform queries such that it shows different entity relationships. | Haider Qazi & Anh Dang |
| Final Phase Report Start | 11/10/2020 | | Write a final Word document. | Anh Dang |
| Write report introduction | 11/12/2020 | 11/19/2020 | Write the Abstract, Mission Statement, Mission Objectives, and Major User Views. | Haider Qazi |
| ER diagram | 11/14/2020 | 11/21/2020 | Include ER diagram in report. | Anh Dang |
| Complete List of Use Cases | 11/16/2020 | 11/23/2020 | Include Use Cases in report. | Haider Qazi |
| Test Plan and Records | 11/18/2020 | 11/25/2020 | Testing your project. | Anh Dang |
| Conclusion + Reference | 11/20/2020 | 11/27/2020 | Write Conclusions and References. | Haider Qazi |
| Project End | | 12/6/2020 | The project demo and report is due. | |