

XYZ Car DealerShipApplication

Group members:

SAI DEV PRAKASH JANAPAREDDI 11507630
SRI HARSHA SWARAJ NADENDLA 11501903
SRI PRANAY NAGAVOLU 11515016
GEETHANJALI KOTARU 11554371
MOULYA MUSUNURU 11549363
TEJASWI GUTHA 11553247

Abstract (Comapany operation):-

In the current world we can buy most things online. And the main intention of the XYZ application is to let an organisation sell the car and provide services to make it easy for customers to buy them and track their service online.

So for our company we get data of customers from two main centres, one if the customer goes to our website and tries to buy etc , another is if the customer went to an event organised by our company and the customer participated in it by giving his/her information.

A customer can be a new customer who has never bought a car from our organisation. We attract them by giving them coupons to buy a car. Other types of customers are our old customers who have already bought a new vehicle we attract to be our customer or buy a new car by giving them new offers.

All types of customers can view all our products and can buy them and our old customers can also see their active service tickets if they have any.

Dealers can view all the service tickets of customers and can update the price of cars if they have any coupon/offers.They can also view the details of the employee that works under them.

Mechanic works at a particular dealer location and under a particular service ticket.

ER Diagram:-

<https://lucid.app/publicSegments/view/fe5a3694-70eb-476c-b8f4-595f92ecaada>

To understand the ER model more clearly please see the relational diagram from the document below.

Operations of the application in detail:-

The different roles and the main operations in the application are as follows:

Roles:-

- Customer
- Dealer

1. (Dealer employee, Dealer Manager, Dealer, Mechanic)

Operations of customer:-

- Customers can login to the system.
- Customers can view customer information.
- Customers can view the product profiles.
- Customers can buy the car.
- Customers can view the Service tickets if any.
- Customers can toggle between dashboard and service tickets.
- Customers can logout.

Operations of Dealer employee:-

- Dealer employees can login to the system.
- Dealers can view dealer information.
- Dealer can view all active tickets.
- Dealers can view the product profiles.
- Update the price of the vehicle based on the offer code/coupon code.
- Dealer can logout.

Operations of employee manager:-

- Giving the manager's name we can view the details of the employee present under him/her.

Operations of chairperson/dealer:-

- Giving the dealer name we can view the details of managers under him.

Operations of Mechanic:-

- Giving Mechanic id we can view mechanic details along with the service ticket he is currently working on.

Other Operations:-

- Error message displayed if no information given at login page

Normalisation and Relational Diagram:-

Customer_table is normalised into Customer_address, customer_email, customer_phone which avoids partial dependencies in turn classifies it into 2nd normal form.

Customer_address is further normalised by adding state_code description which refines transitive dependency in turn classifies it as 3rd normal formal

Vehicle_info is normalised into vehicle_info, vehicle_colour_code_table which is transformed into 3rd normal form.

Dealer_Info is normalised into dealer_info, dealer_location and further attached to country_code_info which satisfies the 3rd normal form condition.

Relational Schema Tables:-

- Offer_Code_Table
- Dealer_Info
- State_Code_Description
- Country_Code_Info
- Dealer_Employee_Table
- Dealer_Location
- Dealer_Brands
- Customer_Table
- Interested_Customer_Table
- Customer_Address
- Customer_Email
- Customer_Phone
- Event_Table
- Customer_Not_Interest_Brand
- Coupon_Code_Table
- Non_Owner_Table
- Vehicle_Colour_Code_Table
- Vehicle_Info
- Owner_Table

- Service_Center_Information
- Service_Customer_Table

Relational Schema diagram:-

https://lucid.app/lucidchart/3207ef3c-7f3f-47ac-93aa-5805bb4738dd/edit?page=0_0&invitationId=inv_974865a8-160d-4abf-8136-e8251e00ec71#

(Note:- You should have lucid chart account to access it)

<https://drive.google.com/file/d/1x0nISmPBdNBjs3n5gB0-iE4v2bqFKibx/view?usp=sharing>

(Above is Image Link)

SQL statements to create tables:-

1. Activity code table:

```
CREATE TABLE Activity_Code_Table (
    Activity_Code int,
    Activity_Description varchar(255),
    Last_Updated_Date_of_Row datetime default now(),
    Last_Updated_Date_of_Table datetime default now(),
    PRIMARY KEY(Activity_Code)
);
```

2. Event_Information:

```
CREATE TABLE `Event_Information` (
    `Event_ID` INT,
    `Event_Description` VARCHAR(255),
    `Date_of_Event` date,
    PRIMARY KEY(Event_ID)
);
```

3. Offer_Code_Table:

```
CREATE TABLE `Offer_Code_Table` (
    `Offer_Code` VARCHAR(10),
    `Offer_Code_Description` VARCHAR(255),
    `Last_Updated_Date_of_Row` datetime default now(),
    `Last_Updated_Date_of_Table` datetime default now(),
    PRIMARY KEY(Offer_Code)
);
```

4. Dealer_Info:

```
CREATE TABLE `Dealer_Info` (
  `Dealer_Code` int,
  `Dealer_Password` VARCHAR(255),
  `Sales_Service_Both_Flag` VARCHAR(20),
  `Number_of_Brands_Available` INT,
  `Number_of_employees` INT,
  `Dealer_Working_Days` INT,
  `Dealer_Working_Hours_1` VARCHAR(255),
  `Dealer_Working_Hours_2` VARCHAR(255),
  PRIMARY KEY(Dealer_Code)
);
```

5. State_Code_Description:

```
CREATE TABLE `State_Code_Description` (
  `State_Code` VARCHAR(2),
  `State_Description` VARCHAR(255),
  `Last_Updated_Date_of_Row` datetime default now(),
  `Last_Updated_Date_of_Table` datetime default now(),
  PRIMARY KEY(State_Code)
);
```

6. Country_Code_Info:

```
CREATE TABLE `Country_Code_Info` (
  `Country_Code` VARCHAR(2),
  `Country_Description` VARCHAR(255),
  `Last_Updated_Date_of_Row` datetime default now(),
  `Last_Updated_Date_of_Table` datetime default now(),
  PRIMARY KEY(Country_Code)
);
```

7. Dealer_Employee_Table:

```
CREATE TABLE `Dealer_Employee_Table` (
  `Dealer_Employee_ID` INT,
  `Dealer_Code` INT,
  `Dealer_Employee_Name` VARCHAR(255),
  `Dealer_Employee_Manager` VARCHAR(255),
  `Employee_Salary` VARCHAR(15),
  `Employee_Address_Line_1` VARCHAR(255),
  `Employee_Address_Line_2` VARCHAR(255),
  `Employee_State_Code` VARCHAR(2),
  `Employee_Country` VARCHAR(2),
  `Employee_Zip_Code` INT,
```

```

FOREIGN KEY (`Employee_Country`) REFERENCES
`Country_Code_Info`(`Country_Code`),
  FOREIGN KEY (`Employee_State_Code`) REFERENCES
`State_Code_Description`(`State_Code`),
  FOREIGN KEY (`Dealer_Code`) REFERENCES
`Dealer_Info`(`Dealer_Code`),
  PRIMARY KEY(Dealer_Employee_ID)
);

```

8. Dealer_Location:

```

CREATE TABLE `Dealer_Location` (
`Dealer_Code` INT,
`Dealer_Location_Code` INT,
`Dealer_Address_Line_1` VARCHAR(255),
`Dealer_Address_Line_2` VARCHAR(255),
`Dealer_State_Code` VARCHAR(2),
`Dealer_Country` VARCHAR(2),
`Dealer_Zip_Code` INT,
FOREIGN KEY(`Dealer_State_Code`) REFERENCES
`State_Code_Description`(`State_Code`),
  FOREIGN KEY(`Dealer_Country`) REFERENCES
`Country_Code_Info`(`Country_Code`),
  FOREIGN KEY(`Dealer_Code`) REFERENCES
`Dealer_Info`(`Dealer_Code`),
  PRIMARY KEY(Dealer_Code,Dealer_Location_Code)
);

```

9. Dealer_Brands:

```

CREATE TABLE `Dealer_Brands` (
`Dealer_Code` INT,
`Brand` VARCHAR(3),
FOREIGN KEY(`Dealer_Code`) REFERENCES
`Dealer_Info`(`Dealer_Code`),
  PRIMARY KEY(Dealer_Code,Brand)
);

```

10. Customer_Table:

```

CREATE TABLE `Customer_Table` (
`Customer_ID` INT,
`Customer_Password` VARCHAR(255),
`Dealer_Code` INT,
`Dealer_Employee_ID` INT,
`Customer_Name` VARCHAR(255),

```

```

`Customer_Age` INT,
`Customer_Sex` VARCHAR(2),
`Customer_Annual_Income` VARCHAR(255),
`Offer_Flag` VARCHAR(2),
`Offer_Code` VARCHAR(4),
`Last_Updated_Date_of_Table` datetime default now(),
FOREIGN KEY(`Offer_Code`) REFERENCES
`Offer_Code_Table`(`Offer_Code`),
FOREIGN KEY(Dealer_Employee_ID) REFERENCES
DEALER_EMPLOYEE_TABLE(Dealer_Employee_ID),
FOREIGN KEY(`Dealer_Code`) REFERENCES
`Dealer_Info`(`Dealer_Code`),
PRIMARY KEY(Customer_ID)
);

```

11. Interested_Customer_Table:

```

CREATE TABLE `Interested_Customer_Table` (
`Activity_Code_ID` INT,
`Customer_ID` INT,
`Activity_code` INT,
`Already_Existing_Owner_Flag` VARCHAR(1),
`Owner_ID` INT,
`Interested_Vehicle_Brand` VARCHAR(3),
`Interested_Model_Year` INT,
`Type_of_Vehicle` VARCHAR(4),
FOREIGN KEY(`Customer_ID`) REFERENCES
`Customer_Table`(`Customer_ID`),
FOREIGN KEY(Activity_code) REFERENCES
ACTIVITY_CODE_TABLE(Activity_code),
PRIMARY KEY (Activity_Code_ID)
);

```

12. Customer_Address:

```

CREATE TABLE `Customer_Address` (
`Customer_ID` INT,
`Household_ID` INT,
`Address_Line_1` VARCHAR(255),
`Address_Line_2` VARCHAR(255),
`State_Code` VARCHAR(2),
`Zip_Code` INT,
`Last_Updated_Date_of_Table` datetime default now(),

```

```
FOREIGN KEY ('State_Code') REFERENCES
`State_Code_Description`(`State_Code`),
FOREIGN KEY ('Customer_ID') REFERENCES
`Customer_Table`(`Customer_ID`),
PRIMARY KEY (Customer_ID, Household_ID)
);
```

13. Customer_Email:

```
CREATE TABLE `Customer_Email` (
`Customer_ID` INT,
`New_Old_Email` VARCHAR(255),
`New_Old_Email_Flag` VARCHAR(2),
`Last_Updated_Date_of_Row` datetime default now(),
`Last_Updated_Date_of_Table` datetime default now(),
FOREIGN KEY ('Customer_ID') REFERENCES
`Customer_Table`(`Customer_ID`),
PRIMARY KEY (Customer_ID)
);
```

14. Customer_Phone:

```
CREATE TABLE `Customer_Phone` (
`Customer_ID` INT,
`Present_Old_Number_Flag` VARCHAR(1),
`Country_Code` VARCHAR(2),
`First_3_Digits_of_Number` INT,
`Middle_3_Digits_of_Number` INT,
`Last_4_Digits_of_Number` INT,
`Last_Updated_Date_of_Row` datetime default now(),
`Last_Updated_Date_of_Table` datetime default now(),
FOREIGN KEY ('Country_Code') REFERENCES
`Country_Code_Info`(`Country_Code`),
FOREIGN KEY ('Customer_ID') REFERENCES
`Customer_Table`(`Customer_ID`),
PRIMARY KEY(Customer_ID)
);
```

15. Event_Table:

```
CREATE TABLE `Event_Table` (
`Event_ID` INT,
`Customer_ID` INT,
`Date_of_Event` DATE,
`Brand's_Promoted` VARCHAR(3),
```

```

`Coupon_Code` VARCHAR(6),
FOREIGN KEY(`Customer_ID`) REFERENCES
`Customer_Table`(`Customer_ID`),
FOREIGN KEY(`Event_ID`) REFERENCES
`Event_Information`(`Event_ID`),
PRIMARY KEY(Event_ID,Customer_ID)
);

```

16. Customer_Not_Interest_Brand:

```

CREATE TABLE `Customer_Not_Interest_Brand` (
`Customer_ID` INT,
`Not_Interested_Brand_Code` VARCHAR(3),
`New_Old_Email_Flag` VARCHAR(1),
`Last_Updated_Date_of_Row` datetime default now(),
`Last_Updated_Date_of_Table` datetime default now(),
FOREIGN KEY (Customer_ID) REFERENCES
CUSTOMER_TABLE(Customer_ID),
PRIMARY KEY(Customer_ID,Not_Interested_Brand_Code)
);

```

17. Coupon_Code_Table:

```

CREATE TABLE `Coupon_Code_Table` (
`Coupon_Code` VARCHAR(6),
`Coupon_Code_Description` VARCHAR(255),
`Coupon_Start_Date` DATE,
`Coupon_End_Date` DATE,
PRIMARY KEY(Coupon_Code)
);

```

18. Non_Owner_Table:

```

CREATE TABLE `Non_Owner_Table` (
`Customer_ID` INT,
`Dealer_Code` INT,
`Vechile_Brand_Code` VARCHAR(3),
`Model_year` INT,
`Type_Of_Vechile` VARCHAR(4),
`Coupon_Flag` VARCHAR(1),
`Coupon_Code` VARCHAR(6),
FOREIGN KEY (`Coupon_Code`) REFERENCES
`Coupon_Code_Table`(`Coupon_Code`),
PRIMARY KEY (Customer_ID)
);

```

19. Vehicle_Colour_Code_Table:

```
CREATE TABLE `Vehicle_Colour_Code_Table` (
  `Vehicle_Colour_Code` VARCHAR(10),
  `Colour_Description` VARCHAR(255),
  `Last_Updated_Date_of_Row` datetime default now(),
  `Last_Updated_Date_of_Table` datetime default now(),
  PRIMARY KEY(Vehicle_Colour_Code)
);
```

20. Vehicle_Info:

```
CREATE TABLE `Vehicle_Info` (
  `Vehicle_Identification_Number` VARCHAR(25),
  `Vehicle_Brand_Code` VARCHAR(3),
  `Vehicle_Model_Code` VARCHAR(4),
  `Vehicle_Model_Sub_Code` VARCHAR(10),
  `Vehicle_Model_Year` INT,
  `Type_of_Vehicle_Code` VARCHAR(4),
  `Vehicle_Colour_Code` VARCHAR(10),
  `Type_of_Tyre` VARCHAR(25),
  `Last_Updated_Date_of_Row` datetime default now(),
  `Last_Updated_Date_of_Table` datetime default now(),
  FOREIGN KEY (`Vehicle_Colour_Code`) REFERENCES
  `Vehicle_Colour_Code_Table`(`Vehicle_Colour_Code`),
  PRIMARY KEY(Vehicle_Identification_Number)
);
```

21. Vehicle_Price:

```
CREATE TABLE `Vehicle_Price` (
  `Vehicle_Identification_Number` VARCHAR(25),
  `Dealer_Manufactor_Date (PK)` DATE,
  `Car_Condition` VARCHAR(4),
  `Price` VARCHAR(10),
  FOREIGN KEY (`Vehicle_Identification_Number`) REFERENCES
  `Vehicle_Info`(`Vehicle_Identification_Number`),
  PRIMARY KEY (Vehicle_Identification_Number)
);
```

22. Owner_Table:

```
CREATE TABLE `Owner_Table` (
  `Customer_ID` INT,
  `Vehicle_Identification_Number` VARCHAR(25),
  `Dealer_Employee_ID` INT,
  `Customer_Name` VARCHAR(50),
  `Customer_Age` INT,
```

```

`Customer_Sex` VARCHAR(1),
`Customer_Annual_Income` VARCHAR(10),
`Offer_Flag` VARCHAR(1),
`Offer_Code` VARCHAR(4),
`Last_Updated_Date_of_Table` datetime default now(),
FOREIGN KEY(`Customer_ID`) REFERENCES
`Customer_Table`(`Customer_ID`),
FOREIGN KEY(`Vehicle_Identification_Number`) REFERENCES
`Vehicle_Info`(`Vehicle_Identification_Number`),
PRIMARY KEY(Customer_ID,Vehicle_Identification_Number)
);

```

23. Service_Center_Information:

```

CREATE TABLE `Service_Center_Information` (
`Service_Center_Code` VARCHAR(5),
`Service_Center_Name` VARCHAR(50),
`Dealer_Code` VARCHAR(25),
`Service_Center_Address_1` VARCHAR(50),
`Service_Center_Address_2` VARCHAR(50),
`State_Code(FK)` VARCHAR(2),
`Country_Code` VARCHAR(2),
`Zip_Code` INT,
`Type_of_Service_available` VARCHAR(100),
-- FOREIGN KEY (`Dealer_Code`) REFERENCES
`Dealer_Info`(`Dealer_Code`),
FOREIGN KEY (`State_Code(FK)`) REFERENCES
`State_Code_Description`(`State_Code`),
PRIMARY KEY (Service_Center_Code)
);

```

24. Mechanic_Details_Table:

```

CREATE TABLE `Mechanic_Details_Table` (
`Mechanic_ID_Number` INT,
`Mechanic_Password` VARCHAR(255),
`Service_Center_Code` VARCHAR(255),
`Mechanic_First_Name` VARCHAR(10),
`Mechanic_Last_Name` VARCHAR(10),
`Mechanic_Phone_Number` VARCHAR(15),
`Mechanic_Address_Line_1` VARCHAR(255),
`Mechanic_Address_Line_2` VARCHAR(255),
`Mechanic_State_Code(FK)` VARCHAR(2),

```

```

`Country_Code` VARCHAR(2),
`Zip_Code` INT,
FOREIGN KEY (`Country_Code`) REFERENCES
`Country_Code_Info`(`Country_Code`),
FOREIGN KEY (`Mechanic_State_Code(FK)`) REFERENCES
`State_Code_Description`(`State_Code`),
PRIMARY KEY (Mechanic_ID_Number)
);

```

25. Service_Customer_Table:

```

CREATE TABLE `Service_Customer_Table` (
`Active_Service_Ticket_Number` VARCHAR(8),
`Customer_ID` INT,
`Owner_ID` INT,
`Vechile_Identification_Number` VARCHAR(25),
`Service_Center_Code` VARCHAR(5),
`Type_of_Service` VARCHAR(50),
`Mechanic_ID_Number` INT,
`Start_Date_of_Service` DATE,
`End_Date_of_Service` DATE,
`Cost_of_Service` VARCHAR(10),
FOREIGN KEY (`Service_Center_Code`) REFERENCES
`Service_Center_Information`(`Service_Center_Code`),
FOREIGN KEY (`Customer_ID`) REFERENCES
`Customer_Table`(`Customer_ID`),
FOREIGN KEY (`Mechanic_ID_Number`) REFERENCES
`Mechanic_Details_Table`(`Mechanic_ID_Number`),
PRIMARY KEY(Active_Service_Ticket_Number)
);

```

Below document contain above DDL queries :-

DDL Document Link:-

<https://drive.google.com/file/d/1J3oNIG7KdLbEInqsF4AhCanodFaBF88X/view?usp=sharing>

Building a working system with sample data loaded:-

Below DML document contain all queries to insert data:-

DML Document Link:-

<https://drive.google.com/file/d/1c92BT8yKcpKOODCpsLhktRq3GSI0md3q/view?usp=sharing>

Screenshots of tables with sample data loaded from the database:

Activity_code_table:

The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** Shows the schema structure under the 'project' database, including tables like activity_code_table, country_code_info, coupon_code_table, customer_address, customer_email, customer_phone, customer_table, dealer_brands, dealer_employee_ta, dealer_info, dealer_location, and event_information.
- SQL Editor:** Displays the query: `select * from project.activity_code_table;`. The results grid shows the following data:

Activity_Code	Activity_Description	Last_Updated_Date_of_Row	Last_Updated_Date_of_Table
101	Opened the website	2022-04-21 00:00:00	2022-04-21 00:00:00
102	Clicked on the automobile image	2022-04-21 00:00:00	2022-04-21 00:00:00
103	Selected Buy option	2022-04-21 00:00:00	2022-04-21 00:00:00
104	Selected Add to Cart option	2022-04-21 00:00:00	2022-04-21 00:00:00
105		2022-04-21 00:00:00	2022-04-21 00:00:00

- Object Info:** Shows the table structure for activity_code_table.
- Action Output:** Displays the log of actions taken on the table, including insertions into Owner_Table and Service_Center_Information.

Country_code_info:

The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** Shows the schema structure under the 'project' database, including tables like activity_code_table, country_code_info, coupon_code_table, customer_address, customer_email, customer_phone, customer_table, dealer_brands, dealer_employee_ta, dealer_info, dealer_location, and event_information.
- SQL Editor:** Displays the query: `select * from project.country_code_info;`. The results grid shows the following data:

Country_Code	Country_Description	Last_Updated_Date_of_Row	Last_Updated_Date_of_Table
AU	Australia	2022-04-21 00:00:00	2022-04-21 00:00:00
GB	United Kingdom	2022-04-21 00:00:00	2022-04-21 00:00:00
US	United States of America	2022-04-21 00:00:00	2022-04-21 00:00:00
MEX	Mexico	MEX	MEX

- Object Info:** Shows the table structure for country_code_info.
- Action Output:** Displays the log of actions taken on the table, including insertions into Service_Customer_Table and SELECT statements.

Coupon_code_table:

The screenshot shows the MySQL Workbench interface. The top menu includes File, Edit, View, Query, Database, Server, Tools, Scripting, Help. The left sidebar has a Navigator section with Schemas (assignment, cscs5350_group22, cscs5350_group23, cscs5350_group24, mydb, project) and Tables (activity_code_table, country_code_info, customer, customer_address, customer_email, customer_email_not_inter, customer_phone, customer_table, dealer_branch, dealer_employee_ta, dealer_info, dealer_location, dealer_information). The main area shows a query editor with the following code:

```
1 • select * from project.coupon_code_table;
```

The result grid displays the following data:

Coupon_Code	Coupon_Code_Description	Coupon_Start_Date	Coupon_End_Date
ABC101	15% off for Grand Opening of Project22...	2022-01-18	2022-02-18
DEF103	Prime Customer for Attending Exhibition	2022-03-20	2022-04-05
PRQ103	No Charge of Oil for 1st Servicing	2022-03-20	2022-04-20
UVW102	Instant 1500\$ Cashback	2022-01-18	2022-01-31
UVW104	Student Offer of Car Leasing	2022-04-25	2022-04-25
XYZ102	Free Gift Hamper for Test Driving	2022-01-18	2022-12-21
XYZ104	Free 1 Year Insurance	2022-04-25	2022-05-25

The bottom status bar shows the following information:

- Action Output: # 90 13:03:52 Time Action
- Output: 4 row(s) returned
- Message: 3 row(s) returned
- Message: 7 row(s) returned
- Duration / Fetch: 0.000 sec / 0.000 sec
- 0.000 sec / 0.000 sec
- 0.000 sec / 0.000 sec

Customer_address:

Customer email:

MySQL Workbench

Local instance MySQL80 unconnected

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DMLs* PROJECT_DDLs* SQL File 4*

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid | Filter Rows: Limit to 1000 rows | Edit: Export/Import: Wrap Cell Content:

Customer_ID New_Old_Email New_Old_Email_Flag Last_Updated_Date_of_Row Last_Updated_Date_of_Table

99105101	99105101@xyz.com	N	2022-04-21 00:00:00	2022-04-21 00:00:00
99105102	99105102@xyz.com	N	2022-04-21 00:00:00	2022-04-21 00:00:00
99105103	99105103@xyz.com	N	2022-04-21 00:00:00	2022-04-21 00:00:00
99105104	99105104@xyz.com	O	2022-04-21 00:00:00	2022-04-21 00:00:00
99105105	99105105@xyz.com	O	2022-04-21 00:00:00	2022-04-21 00:00:00
99105106	99105106@xyz.com	N	2022-04-21 00:00:00	2022-04-21 00:00:00
99105107	99105107@xyz.com	O	2022-04-21 00:00:00	2022-04-21 00:00:00
99105108	99105108@xyz.com	N	2022-04-21 00:00:00	2022-04-21 00:00:00
99105109	99105109@xyz.com	O	2022-04-21 00:00:00	2022-04-21 00:00:00
99105110	99105110@xyz.com	O	2022-04-21 00:00:00	2022-04-21 00:00:00
99105111	99105111@xyz.com	N	2022-04-21 00:00:00	2022-04-21 00:00:00

Result Grid Form Editor Field Types Query Stats Execution Plan

Table: activity_code_table

Columns:

Activity_Code Activity_Description Last_Updated_Date_of_Rc Last_Updated_Date_of_Ts

Action Output

Time Action Message Duration / Fetch

- 92 13:05:10 selected * from project.coupon_code_table LIMIT 0, 1000 7 row(s) returned 0.000 sec / 0.000 sec
- 93 13:05:37 selected * from project.customer_address LIMIT 0, 1000 12 row(s) returned 0.000 sec / 0.000 sec
- 94 13:06:10 selected * from project.customer_email LIMIT 0, 1000 11 row(s) returned 0.000 sec / 0.000 sec

Object Info Session

Query Completed

Type here to search

76°F Cloudy 13:06 23-04-2022

Customer_not_interest_brand:

MySQL Workbench

Local instance MySQL80 unconnected

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DMLs* PROJECT_DDLs* SQL File 4*

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid | Filter Rows: Limit to 1000 rows | Edit: Export/Import: Wrap Cell Content:

Customer_ID Not_Interested_Brand_Code New_Old_Email_Flag Last_Updated_Date_of_Row Last_Updated_Date_of_Table

99105102	DEF	N	2022-04-21 00:00:00	2022-04-21 00:00:00
99105103	PRQ	O	2022-04-21 00:00:00	2022-04-21 00:00:00
99105107	PRQ	N	2022-04-21 00:00:00	2022-04-21 00:00:00
99105110	XYZ	O	2022-04-21 00:00:00	2022-04-21 00:00:00

Result Grid Form Editor Field Types Query Stats Execution Plan

Table: activity_code_table

Columns:

Activity_Code Activity_Description Last_Updated_Date_of_Rc Last_Updated_Date_of_Ts

Action Output

Time Action Message Duration / Fetch

- 93 13:05:37 selected * from project.customer_address LIMIT 0, 1000 12 row(s) returned 0.000 sec / 0.000 sec
- 94 13:06:10 selected * from project.customer_email LIMIT 0, 1000 11 row(s) returned 0.000 sec / 0.000 sec
- 95 13:06:32 selected * from project.customer_not_interest_brand LIMIT 0, 1000 4 row(s) returned 0.000 sec / 0.000 sec

Object Info Session

Query Completed

Type here to search

76°F Cloudy 13:06 23-04-2022

Customer_phone:

MySQL Workbench

Local instance MySQL80 X unconnected X

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DML's* PROJECT_DDL's* SQL File 4* X

SCHEMAS: assignment ccc5350_group22 ccc5350_group22 ccc5350_group22 Tables Views Stored Procedures Functions mydb project Tables: activity_code_table country_code_info coupon_code_table customer_address customer_email customer_not_interest customer_phone customer_table dealer_brands dealer_employee_table dealer_info dealer_location event_information

Result Grid: select * from project.customer_phone;

Customer_ID	Present_Old_Number_Flag	Country_Code	First_3_Digits_of_Number	Middle_3_Digits_of_Number	Last_4_Digits_of_Number	Last_Updated_Date_of_Row	Last_Updated_Date
99105101	P	US	123	456	890	2022-04-21 00:00:00	2022-04-21 00:00:00
99105102	O	AU	234	567	8901	2022-04-21 00:00:00	2022-04-21 00:00:00
99105103	P	US	456	789	123	2022-04-21 00:00:00	2022-04-21 00:00:00
99105104	P	AU	567	890	1234	2022-04-21 00:00:00	2022-04-21 00:00:00
99105105	O	GB	678	901	2345	2022-04-21 00:00:00	2022-04-21 00:00:00
99105106	O	US	789	12	3456	2022-04-21 00:00:00	2022-04-21 00:00:00
99105107	P	AU	890	123	4567	2022-04-21 00:00:00	2022-04-21 00:00:00
99105108	O	GB	901	234	5678	2022-04-21 00:00:00	2022-04-21 00:00:00
99105109	P	US	12	345	6789	2022-04-21 00:00:00	2022-04-21 00:00:00
99105110	O	AU	999	999	9999	2022-04-21 00:00:00	2022-04-21 00:00:00
99105111	P	GB	111	111	1111	2022-04-21 00:00:00	2022-04-21 00:00:00

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Table: activity_code_table

Output: Action Output

Action	Time	Message	Duration / Fetch
selected * from project.customer_phone LIMIT 0, 1000	96 13:07:05	11 row(s) returned	0.016 sec / 0.000 sec
select * from project.customer_not_interest_brand LIMIT 0, 1000	97 13:07:19	4 row(s) returned	0.000 sec / 0.000 sec
select * from project.customer_phone LIMIT 0, 1000	98 13:07:36	11 row(s) returned	0.000 sec / 0.000 sec

Query Completed

Customer_table:

MySQL Workbench

Local instance MySQL80 X unconnected X

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DML's* PROJECT_DDL's* SQL File 4* X

SCHEMAS: assignment ccc5350_group22 ccc5350_group22 ccc5350_group22 Tables Views Stored Procedures Functions mydb project Tables: activity_code_table country_code_info coupon_code_table customer_address customer_email customer_not_interest customer_phone customer_table dealer_brands dealer_employee_table dealer_info dealer_location event_information

Result Grid: select * from project.customer_table;

Customer_ID	Customer_Password	Dealer_Code	Dealer_Employee_ID	Customer_Name	Customer_Age	Customer_Sex	Customer_Annual_Income	Offer_Flag
99105101	Spring-2022-CSC5350_001	6501	7501	SAI DEV PRAKASH JANAPAREDDI	25	M	\$112000	Y
99105102	Spring-2022-CSC5350_002	6503	7510	SRI HARSHA SWARAJ NADENDLA	22	M	\$112000	Y
99105103	Spring-2022-CSC5350_003	6505	7502	SRI PRANAY NAGAVOLU	26	M	\$100200	Y
99105104	Spring-2022-CSC5350_004	6503	7503	GEETHANJALI KOTARU	20	F	\$123000	N
99105105	Spring-2022-CSC5350_005	6501	7505	MOLIYA MUSUNURU	27	F	\$154000	Y
99105106	Spring-2022-CSC5350_006	6503	7503	TEJASVI GUTHA	21	F	\$135000	Y
99105107	Spring-2022-CSC5350_007	6503	7507	HRITHIK ROSHAN	24	M	\$1250600	N
99105108	Spring-2022-CSC5350_008	6502	7506	RAJESH KOTHRAPALI	30	M	\$2350906	N
99105109	Spring-2022-CSC5350_009	6503	7510	SHELDON LEE COOPER	36	M	\$3421233	Y
99105110	Spring-2022-CSC5350_010	6501	7508	LENORD HOFSTAETER	32	M	\$2342445	Y
99105111	Spring-2022-CSC5350_011	6502	7509	HOWARD WOLOVITZ	35	M	\$5321050	N

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Table: activity_code_table

Output: Action Output

Action	Time	Message	Duration / Fetch
selected * from project.customer_not_interest_brand LIMIT 0, 1000	97 13:07:19	4 row(s) returned	0.000 sec / 0.000 sec
select * from project.customer_phone LIMIT 0, 1000	98 13:07:36	11 row(s) returned	0.000 sec / 0.000 sec
select * from project.customer_table LIMIT 0, 1000	99 13:07:54	11 row(s) returned	0.000 sec / 0.000 sec

Query Completed

Dealer_brands:

The screenshot shows the MySQL Workbench interface with a connection to "Local instance MySQL80".

Schemas:

- assignment
- cscs5350_group22
- cscs5350_group22
- cscs5350_group22
- Tables
- Views
- Stored Procedures
- Functions
- mydb
- project
- Tables
 - activity_code_table
 - country_code_info
 - customer_address
 - customer_email
 - customer_not_inter
 - customer_phone
 - customer_table
 - dealer_brands
 - dealer_employee_ta
 - dealer_info
 - dealer_location
 - player_information

Central Workspace:

SQL File 4* (selected)

```
1 • select * from project.dealer_brands;
```

Result Grid | Filter Rows: [] | Edit: [] | Export/Import: [] | Wrap Cell Content: []

Dealer_Code	Brand
6501	ABC
6501	PQR
6501	UVW
6501	XYZ
6502	ABC
6502	DEF
6502	PQR
6502	PRQ
6502	STU
6502	UVW
6502	XYZ
6503	DEF
6503	PQR
6503	STU
6503	UVW
6503	XYZ
6503	WZZ

Bottom Panel:

Table: activity_code_table

Columns: Activity_Code

Action Output

#	Time	Action	Message	Duration / Fetch
98	13:07:36	select * from project.customer_phone LIMIT 0, 1000	11 row(s) returned	0.000 sec / 0.000 sec
99	13:07:54	select * from project.customer_table LIMIT 0, 1000	11 row(s) returned	0.000 sec / 0.000 sec
100	13:08:17	select * from project.dealer_brands LIMIT 0, 1000	16 row(s) returned	0.000 sec / 0.000 sec

Output

Object Info Session

Query Completed

Dealer_employee_table:

MySQL Workbench

Local instance MySQL80 x unconnected x

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DMLs* PROJECT_DDLs* SQL File 4*

SCHEMAS

- assignment
- csc5350_group22
- csc5350_group22
- csc5350_group22

Tables Views Stored Procedures Functions

mydb project

- Tasks
- activity_code_table
- country_code_info
- coupon_code_table
- customer_address
- customer_email
- customer_not_interested
- customer_phone
- customer_table
- dealer_brands
- dealer_employee_table
- dealer_info
- dealer_location
- await_information

Administration Schemas Information

Table: activity_code_table

Columns: Activity_Code Activity_Description Last_Updated_Date_of_Rc Last_Updated_Date_of_Tx

Action Output

#	Time	Action	Message	Duration / Fetch
99	13:07:54	select * from project.customer_table LIMIT 0, 1000	11 row(s) returned	0.000 sec / 0.000 sec
100	13:08:17	select * from project.dealer_brands LIMIT 0, 1000	16 row(s) returned	0.000 sec / 0.000 sec
101	13:08:37	select * from project.dealer_employee_table LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec

Query Completed

76°F Cloudy

Type here to search

13:08 23-Nov-2022

Dealer info:

MySQL Workbench

Local instance MySQL80 x unconnected x

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DMLs* PROJECT_DDLs* SQL File 4*

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

Table: dealer_info 15 x

Output:

Dealer_Code	Dealer_Password	Sales_Service_Both_Flag	Number_of_Brands_Available	Number_of_Employees	Dealer_Working_Days	Dealer_Working_Hours_1	Dealer_Working_Hours_2
6501	Spring-2022-CSCE5350_118	Sales	4	10	5	M-F 10 AM to 5 PM	
6502	Spring-2022-CSCE5350_119	Service	7	5	7	M-F 10 AM to 5 PM	SAT,SUN 10 AM to 5 PM
6503	Spring-2022-CSCE5350_120	Sales,Service	5	7	5	M-F 10 AM to 5 PM	
			NULL	NULL	NULL	NULL	NULL

Columns: Activity_Code Activity_Description Last_Updated_Date_of_Rc Last_Updated_Date_of_Ts

Action Output

#	Time	Action	Message	Duration / Fetch
101	13:08:37	select * from project.dealer_employee_table LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
102	13:09:02	select * from project.dealer_info LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
103	13:09:04	select * from project.dealer_info LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

Query Completed

Type here to search

76°F Cloudy 13:09 23-04-2022

Dealer_location:

MySQL Workbench

Local instance MySQL80 x unconnected x

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DMLs* PROJECT_DDLs* SQL File 4*

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

Table: dealer_location 16 x

Output:

Dealer_Code	Dealer_Location_Code	Dealer_Address_Line_1	Dealer_Address_Line_2	Dealer_State_Code	Dealer_Country	Dealer_Zip_Code
6501	1	12234_Street	project22	TX	US	75056
6501	2	9445 North	Mayfield St.	Colonial Heights	TX	23834
6502	1	2108_Street	dbms	CA	US	90224
6503	1	5401_Street	teamproject	Apt. 6	FL	32808
				NULL	NULL	NULL

Columns: Activity_Code Activity_Description Last_Updated_Date_of_Rc Last_Updated_Date_of_Ts

Action Output

#	Time	Action	Message	Duration / Fetch
102	13:09:02	select * from project.dealer_info LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
103	13:09:04	select * from project.dealer_info LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
104	13:09:24	select * from project.dealer_location LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec

Query Completed

Type here to search

76°F Cloudy 13:09 23-04-2022

Event_information:

MySQL Workbench

Local instance MySQL80 unconnected

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DMLs* PROJECT_DDLs* SQL File 4*

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

Event_ID Event_Description Date_of_Event

Event_ID	Event_Description	Date_of_Event
201	Grand Opening of "PROJECT22" Car at UNT mall	2022-04-21
202	Test Drive of Project car near UNT mall	2022-04-21
203	Car Exhibition in Life Science grounds	2022-04-21
204	UNT Spring 2022 Car show	2022-04-21
NULL	NULL	NULL

Table: activity_code_table

Columns:

- Activity_Code
- Activity_Description
- Last_Updated_Date_of_Rc
- Last_Updated_Date_of_Tz

Action Output

#	Time	Action	Message	Duration / Fetch
103	13:09:04	select * from project.dealer_info LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
104	13:09:24	select * from project.dealer_location LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
105	13:09:46	select * from project.event_information LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec

Query Completed

Type here to search

Event_table:

MySQL Workbench

Local instance MySQL80 unconnected

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DMLs* PROJECT_DDLs* SQL File 4*

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

Event_ID Customer_ID Date_of_Event Brand's_Promoted Coupon_Code

Event_ID	Customer_ID	Date_of_Event	Brand's_Promoted	Coupon_Code
201	99105105	2022-01-18	ABC	ABC101
202	99105107	2022-03-20	UVW	UVW102
202	99105111	2022-01-18	XYZ	XYZ102
203	99105108	2022-03-20	PRQ	PRQ103
203	99105109	2022-03-20	DEF	DEF103
204	99105106	2022-04-25	XYZ	XYZ104
204	99105110	2022-04-25	UVW	UVW104
NULL	NULL	NULL	NULL	NULL

Table: activity_code_table

Columns:

- Activity_Code
- Activity_Description
- Last_Updated_Date_of_Rc
- Last_Updated_Date_of_Tz

Action Output

#	Time	Action	Message	Duration / Fetch
104	13:09:24	select * from project.dealer_location LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
105	13:09:46	select * from project.event_table LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
106	13:10:06	select * from project.event_table LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec

Query Completed

Type here to search

Interested_customer_table:

The screenshot shows the MySQL Workbench interface with the following details:

- Schemas:** Local instance MySQL80, unconnected.
- Navigator:** Shows the project schema with various tables like activity_code_table, customer_email, etc.
- SQL Editor:** Contains the query: `select * from project.interested_customer_table;`
- Result Grid:** Displays the results of the query. The columns are: Activity_Code_ID, Customer_ID, Activity_code, Already_Existing_Owner_Flag, Owner_ID, Interested_Vehicle_Brand, Interested_Model_Year, and Type_of_Vehicle. The data includes rows for 5001 through 5007.
- Output Panel:** Shows the execution history with three entries: select from project.event_info (4 rows), select from project.event_table (7 rows), and select from project.interested_customer_table (7 rows).
- System Bar:** Shows the system status including temperature (76°F), battery level, and network connection.

Mechanic_table_details:

The screenshot shows the MySQL Workbench interface with the following details:

- Schemas:** Local instance MySQL80, unconnected.
- Navigator:** Shows the project schema with various tables like activity_code_table, customer_email, etc.
- SQL Editor:** Contains the query: `select * from project.mechanic_details_table;`
- Result Grid:** Displays the results of the query. The columns are: Mechanic_ID_Number, Mechanic_Password, Service_Center_Code, Mechanic_First_Name, Mechanic_Last_Name, Mechanic_Phone_Number, Mechanic_Address_Line_1, and Mechanic_Address_Line_2. The data includes rows for 5001 through 5005.
- Output Panel:** Shows the execution history with four entries: select from project.event_table (7 rows), select from project.interested_customer_table (7 rows), and select from project.mechanic_details_table (5 rows).
- System Bar:** Shows the system status including temperature (77°F), battery level, and network connection.

Non_owner_table:

MySQL Workbench

Local instance MySQL80 unconnected

File Edit View Query Database Server Tools Scripting Help

Navigator: Schemas

SCHEMAS: project

Tables: non_owner_table

Result Grid:

Customer_ID	Dealer_Code	Vehile_Brand_Code	Model_year	Type_Of_Vehicle	Coupon_Flag	Coupon_Code
99105105	6501	ABC	2022	USED	Y	ABC101
99105108	6502	XYZ	2021	USED	Y	XYZ104
99105110	6503	UVW	2019	NEW	N	NULL
NULL	NULL	NULL	NULL	NULL	NULL	NULL

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Table: activity_code_table

Columns: Activity_Code, Activity_Description, Last_Updated_Date_of_Rc, Last_Updated_Date_of_Ts

Action Output:

#	Time	Action	Message	Duration / Fetch
107	13:13:22	selected * from project.interested_customer_table LIMIT 0, 1000	7 row(s) returned	0.015 sec / 0.000 sec
108	13:14:22	select * from project.mechanic_details_table LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
109	13:16:10	select * from project.non_owner_table LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

Query Completed

Windows Taskbar: Type here to search, 77°F Cloudy, 13:16, 23-04-2022

Offer_code_table:

MySQL Workbench

Local instance MySQL80 unconnected

File Edit View Query Database Server Tools Scripting Help

Navigator: Schemas

SCHEMAS: project

Tables: offer_code_table

Result Grid:

Offer_Code	Offer_Code_Description	Last_Updated_Date_of_Row	Last_Updated_Date_of_Table
NULL	NO OFFER	2022-04-21 00:00:00	2022-04-21 00:00:00
OFF1	Instant 10% Cashback on all accessories	2022-04-21 00:00:00	2022-04-21 00:00:00
OFF2	Sell your old automobile and get exciting offers ...	2022-04-21 00:00:00	2022-04-21 00:00:00
OFF3	0% APR Finance deals	2022-04-21 00:00:00	2022-04-21 00:00:00
OFF4	SALE DAY	2022-04-21 00:00:00	2022-04-21 00:00:00
OFF5	20% off on your Next Car Leasing	2022-04-21 00:00:00	2022-04-21 00:00:00
OFF6	NULL	NULL	NULL

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Table: activity_code_table

Columns: Activity_Code, Activity_Description, Last_Updated_Date_of_Rc, Last_Updated_Date_of_Ts

Action Output:

#	Time	Action	Message	Duration / Fetch
109	13:16:10	selected * from project.non_owner_table LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
110	13:16:36	selected * from project.non_owner_table LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
111	13:16:50	selected * from project.offer_code_table LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

Query Completed

Windows Taskbar: Type here to search, 77°F Cloudy, 13:16, 23-04-2022

Owner_table:

MySQL Workbench

Local instance MySQL80 unconnected

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DMLs* PROJECT_DDLs* SQL File 4* Limit to 1000 rows

SCHEMAS: project

Tables: owner_table

Result Grid: Customer_ID, Vehicle_Identification_Number, Dealer_Employee_ID, Customer_Name, Customer_Age, Customer_Sex, Customer_Annual_Income, Offer_Flag, Offer_Code

Customer_ID	Vehicle_Identification_Number	Dealer_Employee_ID	Customer_Name	Customer_Age	Customer_Sex	Customer_Annual_Income	Offer_Flag	Offer_Code
99105101	VIN99105101	7505	SAI DEVI PRAKASH JANAPAREDDI	25	M	\$112000	Y	OFF1
99105102	VIN99105102	7501	SRI HARSHA SWARAJ NADENDLA	22	M	\$112000	Y	OFF2
99105103	VIN99105103	7510	SRI PRANAY NAGAVOLU	26	M	\$102000	Y	OFF3
99105104	VIN99105104	7506	GEETHANJALI KOTARU	20	F	\$123000	N	NULL
99105105	VIN99105105	7505	TEJASWI GLUTHURU	21	F	\$135000	Y	OFF5
99105107	VIN99105107	7502	HRITHIK ROSHAN	24	M	\$1250600	N	NULL
99105108	VIN99105108	7503	SHELDON LEE COOPER	36	M	\$3421223	Y	OFF1
99105111	VIN99105111	7509	HOWARD WOLOWITZ	35	M	\$5321050	N	NULL

Table: activity_code_table

Columns: Activity_Code, Activity_Description, Last_Updated_Date_of_Rc, Last_Updated_Date_of_Tc

Action Output:

#	Time	Action	Message	Duration / Fetch
110	13:16:36	select * from project.non_owner_table LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
111	13:16:50	select * from project.offer_code_table LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
112	13:17:09	select * from project.owner_table LIMIT 0, 1000	8 row(s) returned	0.000 sec / 0.000 sec

Query Completed

Type here to search

77°F Cloudy 13:17 23-04-2022

Service_center_information:

MySQL Workbench

Local instance MySQL80 unconnected

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DMLs* PROJECT_DDLs* SQL File 4* Limit to 1000 rows

SCHEMAS: project

Tables: service_center_information

Result Grid: Service_Center_Code, Service_Center_Name, Dealer_Code, Service_Center_Address_1, Service_Center_Address_2, State_Code(PK), Country_Code, Zip_Code, Type_of_Service_available

Service_Center_Code	Service_Center_Name	Dealer_Code	Service_Center_Address_1	Service_Center_Address_2	State_Code(PK)	Country_Code	Zip_Code	Type_of_Service_available
SERV1	Service Center 1	6501,6502,6503	12234, Street project22		TX	US	75056	General Service, Oil fil
SERV2	Service Center 2	6502,6503	2108, Street dbms		CA	US	90224	General Service, Antifree
SERV3	Service Center 3	6502	5401, Street teamproject	Apt 6	FL	US	32808	General Service, New tire

Table: activity_code_table

Columns: Activity_Code, Activity_Description, Last_Updated_Date_of_Rc, Last_Updated_Date_of_Tc

Action Output:

#	Time	Action	Message	Duration / Fetch
111	13:16:50	select * from project.offer_code_table LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
112	13:17:09	select * from project.owner_table LIMIT 0, 1000	8 row(s) returned	0.000 sec / 0.000 sec
113	13:17:23	select * from project.service_center_information LIMIT 0, 1000	3 row(s) returned	0.015 sec / 0.000 sec

Query Completed

Type here to search

77°F Cloudy 13:17 23-04-2022

Service_customer_table:

MySQL Workbench

Local instance MySQL80 X unconnected X

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DMLs* PROJECT_DDLs* SQL File 4* Schemas

SCHEMAS: project

Tables: service_customer_table

Result Grid: Active_Service_Ticket_Number Customer_ID Owner_ID Vehicle_Identification_Number Service_Center_Code Type_of_Service Mechanic_ID_Number Start_Date

Active_Service_Ticket_Number	Customer_ID	Owner_ID	Vehicle_Identification_Number	Service_Center_Code	Type_of_Service	Mechanic_ID_Number	Start_Date
SERV1201	99105101	99105201	VIN99105101	SERV1	Basic Oil Change	5001	2022-04-18
SERV1202	99105102	99105202	VIN99105102	SERV2	Front End Alignment	5002	2022-01-04
SERV1203	99105104	99105204	VIN99105104	SERV3	Brake Job Front (Resurface Rotors/Drums)	5003	2022-04-25

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Information: Table: activity_code_table

Columns: Activity_Code Activity_Description Last_Updated_Date_of_Rc Last_Updated_Date_of_Tc

Action Output: # Time Action Message Duration / Fetch

112	13:17:09	selected * from project.owner_table LIMIT 0, 1000	8 row(s) returned	0.000 sec / 0.000 sec
113	13:17:23	selected * from project.service_center_information LIMIT 0, 1000	3 row(s) returned	0.015 sec / 0.000 sec
114	13:18:03	selected * from project.service_customer_table LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

Query Completed

Type here to search

Service_code_description:

MySQL Workbench

Local instance MySQL80 X unconnected X

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DMLs* PROJECT_DDLs* SQL File 4* Schemas

SCHEMAS: project

Tables: state_code_description

Result Grid: State_Code State_Description Last_Updated_Date_of_Row Last_Updated_Date_of_Table

State_Code	State_Description	Last_Updated_Date_of_Row	Last_Updated_Date_of_Table
CA	California	2022-04-21 00:00:00	2022-04-21 00:00:00
FL	Florida	2022-04-21 00:00:00	2022-04-21 00:00:00
HI	Hawaii	2022-04-21 00:00:00	2022-04-21 00:00:00
IN	Indiana	2022-04-21 00:00:00	2022-04-21 00:00:00
NC	North Carolina	2022-04-21 00:00:00	2022-04-21 00:00:00
NJ	New Jersey	2022-04-21 00:00:00	2022-04-21 00:00:00
NY	New York	2022-04-21 00:00:00	2022-04-21 00:00:00
OH	Ohio	2022-04-21 00:00:00	2022-04-21 00:00:00
TX	Texas	2022-04-21 00:00:00	2022-04-21 00:00:00
WA	Washington	2022-04-21 00:00:00	2022-04-21 00:00:00
WI	Wisconsin	2022-04-21 00:00:00	2022-04-21 00:00:00

SQLAdditions: Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Information: Table: activity_code_table

Columns: Activity_Code Activity_Description Last_Updated_Date_of_Rc Last_Updated_Date_of_Tc

Action Output: # Time Action Message Duration / Fetch

113	13:17:23	selected * from project.service_center_information LIMIT 0, 1000	3 row(s) returned	0.015 sec / 0.000 sec
114	13:18:03	selected * from project.service_customer_table LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
115	13:18:24	selected * from project.state_code_description LIMIT 0, 1000	11 row(s) returned	0.015 sec / 0.000 sec

Query Completed

Type here to search

Vehicle_color_code_table:

MySQL Workbench

Local instance MySQL80 X unconnected X

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DMLs* PROJECT_DDLs* SQL File 4* Limit to 1000 rows

1 • select * from project.vehicle_colour_code_table;

Execute the selected portion of the script or everything, if there is no selection.

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

Vehicle_Colour_Code	Colour_Description	Last_Updated_Date_of_Row	Last_Updated_Date_of_Table
B600M	Steel Sapphire Metallic	2022-04-21 00:00:00	2022-04-21 00:00:00
GQQ	Sunset Gold Metallic	2022-04-21 00:00:00	2022-04-21 00:00:00
LPM	Iconic Silver Metallic	2022-04-21 00:00:00	2022-04-21 00:00:00
N9M	Himalayan Gray Metallic	2022-04-21 00:00:00	2022-04-21 00:00:00
PRM	Ocean Blue Metallic	2022-04-21 00:00:00	2022-04-21 00:00:00
PH3	New Black Metallic/Vlk Black Metallic	2022-04-21 00:00:00	2022-04-21 00:00:00
SWP	Snow White Pearl	2022-04-21 00:00:00	2022-04-21 00:00:00
Y9T	Mythoschwarz Metalic	2022-04-21 00:00:00	2022-04-21 00:00:00
M0L	M0L	M0L	M0L

SQLAdditions | < | > | Jump to

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid | Form Editor | Field Types | Query Stats | Execution Plan

Table: activity_code_table

Columns:

- Activity_Code
- Activity_Description
- Last_Updated_Date_of_Rc
- Last_Updated_Date_of_Tz

Action Output

- # Time Action Message Duration / Fetch
- 114 13:18:03 select * from project.service_customer_table LIMIT 0, 1000 3 row(s) returned 0.000 sec / 0.000 sec
- 115 13:18:24 select * from project.state_code_description LIMIT 0, 1000 11 row(s) returned 0.015 sec / 0.000 sec
- 116 13:18:42 select * from project.vehicle_colour_code_table LIMIT 0, 1000 8 row(s) returned 0.000 sec / 0.000 sec

Object Info Session

Query Completed

Type here to search

77°F Cloudy 13:18 ENG 23-04-2022

Vehicle_info:

MySQL Workbench

Local instance MySQL80 X unconnected X

File Edit View Query Database Server Tools Scripting Help

Navigator: PROJECT_DMLs* PROJECT_DDLs* SQL File 4* Limit to 1000 rows

1 • select * from project.vehicle_info;

Execute the selected portion of the script or everything, if there is no selection.

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

Vehicle_Identification_Number	Vehicle_Brand_Code	Vehicle_Model_Code	Vehicle_Model_Sub_Code	Vehicle_Model_Year	Type_of_Vehicle_Code	Vehicle_Colour_Code	Type_of_Type	Last_Updated_Date_of_Table
VN99105101	ABC	MDL5	Model S	2022	USED	N9M	ALL-SEASON	2022-04-21 00:00:00
VN99105102	XYZ	MSD3	Model 3	2021	USED	PH3	COMPETITION	2022-04-21 00:00:00
VN99105103	UVW	MDLX	Model X	2019	NEW	R9M	PASSENGER	2022-04-21 00:00:00
VN99105104	PQR	MDLY	Model Y	2022	NEW	SWP	PERFORMANCE	2022-04-21 00:00:00
VN99105105	DEF	RSAP	Model 3/Y	2017	USED	BS9M	TOURING	2022-04-21 00:00:00
VN99105107	ABC	REBU	Model 3/X	2022	USED	LPM	ALL-TERRAIN	2022-04-21 00:00:00
VN99105109	PQR	AOL1	SS	2021	NEW	GQQ	MUD-TERRAIN	2022-04-21 00:00:00
VN99105111	STU	APBS	6S	2022	NEW	Y9T	ATV/UTV	2022-04-21 00:00:00
						M0L	M0L	

SQLAdditions | < | > | Jump to

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Result Grid | Form Editor | Field Types | Query Stats | Execution Plan

Table: activity_code_table

Columns:

- Activity_Code
- Activity_Description
- Last_Updated_Date_of_Rc
- Last_Updated_Date_of_Tz

Action Output

- # Time Action Message Duration / Fetch
- 115 13:18:24 select * from project.state_code_description LIMIT 0, 1000 11 row(s) returned 0.015 sec / 0.000 sec
- 116 13:18:42 select * from project.vehicle_colour_code_table LIMIT 0, 1000 8 row(s) returned 0.000 sec / 0.000 sec
- 117 13:18:57 select * from project.vehicle_info LIMIT 0, 1000 8 row(s) returned 0.000 sec / 0.000 sec

Object Info Session

Query Completed

Type here to search

77°F Cloudy 13:19 ENG 23-04-2022

Vehicle_price:

The screenshot shows the MySQL Workbench interface. In the top navigation bar, there are tabs for 'PROJECT_DMLs*', 'PROJECT_DDLs*', and 'SQL File 4*'. The main area displays a 'Result Grid' for a query that selects all columns from the 'project.vehicle_price' table. The grid has columns: Vehicle_Identification_Number, Dealer_Manufacturer_Date (PK), Car_Condition, and Price. The data includes rows such as V999105101, V999105102, V999105103, V999105104, V999105106, V999105107, V999105109, and V999105111. Below the grid, the 'Execution Plan' tab is selected in the sidebar. At the bottom, the system tray shows the date as 23-04-2022.

Functionalities of our Business:-

Customer functionalities:-

1) We have discussed above about how our customer data comes to our database and in which table it stores and what data.

2) Customer login page

Each customer gives their Username and password.

The screenshot shows a web page for 'XYZ Car Dealership company'. At the top right are links for 'About Us' and 'Dealer Sign in'. The main content features a cartoon illustration of a blue pickup truck with two people inside, driving through a landscape with trees and a road sign. To the right of the illustration is a 'Customer Sign in' form. It contains fields for 'Email address' (with value '99105101') and 'Password' (with value '*****'). A 'Sign in' button is at the bottom of the form.

3)Customer Dashboard

Based on the customer id there details displayed.

Our Products

From below query a particular customer_id is given to the API

Query:-

```
select A.Customer_ID,A.Customer_Name,A.Customer_Age,A.Customer_Sex,B.New_Old_E  
mail AS 'Customer_Email',  
  
concat(E.First_3_Digits_of_Number,"-",E.Middle_3_Digits_of_Number,"-",E.Last_4_Digits_of_Nu  
mber) AS "Customer_Phone_Number",  
A.Customer_Annual_Income,G.Vehicle_Identification_Number,  
  
C.Address_Line_1,C.Address_Line_2,D.State_Description,C.Zip_Code,A.Dealer_Code,A.Dealer_E  
mployee_ID,F.Offer_Code_Description,I.Coupon_Code_Description,  
CASE WHEN A.Customer_ID IN (SELECT Customer_ID FROM Owner_Table) THEN 'Y' ELSE 'N'  
END AS 'OWNER_NON_OWNER_FLAG'  
from Customer_Table A inner join Customer_Email B on A.Customer_ID=B.Customer_ID  
INNER JOIN (SELECT DISTINCT  
Customer_ID,Address_Line_1,Address_Line_2,State_Code,Zip_Code FROM Customer_Address  
where Household_ID != '99100102') C  
on A.Customer_ID=C.Customer_ID INNER JOIN State_Code_Description D ON C.State_Code=  
D.State_Code  
INNER JOIN Customer_Phone E ON A.Customer_ID=E.Customer_ID inner join  
Offer_Code_Table F on A.Offer_Code=F.Offer_Code  
LEFT OUTER JOIN Owner_Table G ON A.Customer_ID=G.Customer_ID  
LEFT OUTER JOIN Non_Owner_Table H ON A.Customer_ID=H.Customer_ID  
LEFT OUTER JOIN Coupon_Code_Table I ON H.Coupon_Code=I.Coupon_Code  
where A.Customer_ID=""
```

4)Customer can view the products in dashboard

XYZ Car Dealership company

About Us Service Dashboard Dealer Sign in Log out

Our Products

Vehicle Number : VIN99105101
Price: \$51,200
Type of Tyre : ALL-SEASON
Type of Vehicle : USED
Vehicle Model Code : MDLS-Model S
Vehicle Model Year : 2022

[Buy](#)

Vehicle Number : VIN99105102
Price: \$77,512
Type of Tyre : COMPETITION
Type of Vehicle : USED
Vehicle Model Code : MS03-Model 3
Vehicle Model Year : 2021

[Buy](#)

Vehicle Number : VIN99105103
Price: \$102,343
Type of Tyre : PASSENGER
Type of Vehicle : NEW
Vehicle Model Code : MDLX-Model X
Vehicle Model Year : 2019

[Buy](#)

Below query gives all the vehicle information to be displayed to customer

Query:-

```
select
A.Vehicle_Identification_Number,Vehicle_Brand_Code,Vehicle_Model_Code,Vehicle_Model_Sub_Code,Vehicle_Model_Year,Type_of_Vehicle_Code,B.Colour_Description,A.Type_of_Tyre
,C.Price FROM Vehicle_Info A inner join Vehicle_Colour_Code_Table B ON
A.Vehicle_Colour_Code=B.Vehicle_Colour_Code
INNER JOIN Vehicle_Price C ON
A.Vehicle_Identification_Number=C.Vehicle_Identification_Number
```

5)Customers buy a car.

6)Customers can see the service tickets.

From above page at top right if he clicks service we can see service tickets
If he is an owner and have active service ticket.



Active ticket 1

Vehicle Number: VIN99105101
Type of Service: Basic Oil Change
Start date: 2022-04-18T05:00:00.000Z
End date: 2022-04-18T05:00:00.000Z
Cost of service: \$52.00
Mechanic ID Number: 5001
Service Center Number: SERV1
Service Center Address: 12234 ,Street project22,75056
Type of Service Available: General Service,Oil/oil filter changed,Wiper blades replacement,Basic Oil Change

If he is not an owner, he doesn't have any ticket.



No Active Tickets

7)Customers can toggle between dashboard and service ticket page and can log out from below link(badge).

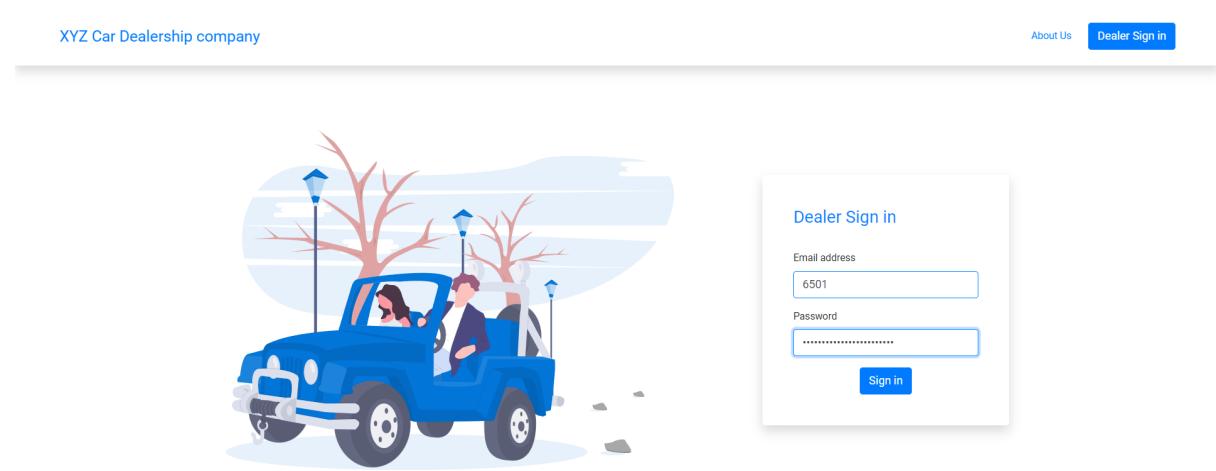


Dealer functionalities:-

1)We have discussed above about how our dealer data comes to our database and in which table it stores and what data.

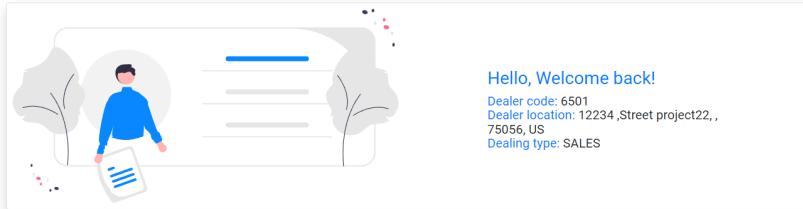
2)Dealer login page

Each dealer gives their Username and password.



3)Dealer dashboard can see all the active service tickets and all vehicle information.

Dealer Dashboard



Tickets

Active ticket 1

Vehicle Number: VIN99105101
Type of Service: Basic Oil Change
Start date: 2022-04-18T05:00:00.000Z
End date: 2022-04-18T05:00:00.000Z
Cost of service: \$52.00
Mechanic ID Number: 5001
Service Center Number: SERV1
Service Center Address: 1234 ,Street project22,75056
Type of Service Available: General Service,Oil/oil filter changed,Wiper blades replacement,Basic Oil Change

Active ticket 2

Vehicle Number: VIN99105102
Type of Service: Front End Alignment
Start date: 2022-01-04T06:00:00.000Z
End date: 2022-04-15T05:00:00.000Z
Cost of service: \$109.95
Mechanic ID Number: 5002
Service Center Number: SERV2
Service Center Address: 2108 ,Street dbms,90224
Type of Service Available: General Service,Antifreeze,Battery replacement,Front End Alignment

Active ticket 3

Vehicle Number: VIN99105104
Type of Service: Brake Job Front (Resurface Rotors/Drums)
Start date: 2022-04-25T05:00:00.000Z
End date: 2022-04-25T05:00:00.000Z
Cost of service: \$207.95
Mechanic ID Number: 5003
Service Center Number: SERV3
Service Center Address: 5401 ,Street teamproject,32808
Type of Service Available: General Service,New tires,Brake Job Front (Resurface Rotors/Drums)

Products



Vehicle Number : VIN99105101
Price: \$51,200
Type of Tyre : ALL-SEASON
Type of Vehicle : USED
Vehicle Model Code : MDLS-Model S
Vehicle Model Year : 2022

[Update](#)

Vehicle Number : VIN99105102
Price: \$77,512
Type of Tyre : COMPETITION
Type of Vehicle : USED
Vehicle Model Code : MS03-Model 3
Vehicle Model Year : 2021

[Update](#)

Vehicle Number : VIN99105103
Price: \$102,343
Type of Tyre : PASSENGER
Type of Vehicle : NEW
Vehicle Model Code : MDLX-Model X
Vehicle Model Year : 2019

[Update](#)

Query:-

For dealer dashboard:-

Select

```
A.Dealer_Code,  
A.Dealer_Address_Line_1,A.Dealer_Address_Line_2,B.State_Description as "Dealer  
State Description",A.Dealer_Country,A.Dealer_Zip_Code,  
CASE WHEN A.Dealer_Code=6501 THEN 'SALES' WHEN A.Dealer_Code=6502 THEN  
'SERVICE' WHEN A.Dealer_Code=6503 THEN 'SALES,SERVICE' END AS  
"SALES_SERVICE"  
from Dealer_Location A  
INNER JOIN State_Code_Description B ON A.Dealer_State_Code= B.State_Code  
WHERE A.Dealer_Location_Code=1 AND A.Dealer_Code= ""  
order by dealer_Code
```

To view all tickets:-

select

```
Active_Service_Ticket_Number,Customer_ID,Owner_ID,Vechile_Identification_Number,pt.Se  
rvice_Center_Code,Service_Center_Name,
```

```
Type_of_Service,Mechanic_ID_Number,Start_Date_of_Service,End_Date_of_Service,Cost_o  
f_Service,
```

```
Service_Center_Address_1,Service_Center_Address_2,Country_Code,Zip_Code,Type_of_Ser  
vice_available
```

```
from service_customer_table as pt  
,service_center_information as pi where pi.service_center_code=pt.service_center_code
```

To view products:-

select

```
A.Vehicle_Identification_Number,Vehicle_Brand_Code,Vehicle_Model_Code,Vehicle_Model_  
Sub_Code,Vehicle_Model_Year,Type_of_Vehicle_Code,B.Colour_Description,A.Type_of_Tyre  
,C.Price FROM Vehicle_Info A inner join Vehicle_Colour_Code_Table B ON  
A.Vehicle_Colour_Code=B.Vehicle_Colour_Code  
INNER JOIN Vehicle_Price C ON  
A.Vehicle_Identification_Number=C.Vehicle_Identification_Number
```

From the above page we can also see the logout option.

4)Update the price if customer has coupon/offer by giving customer id and VIN

Ex:- for one customer id is given

```

select
Vehicle_Identification_Number,
case when (Customer_ID in
(select Customer_ID from Owner_Table where Offer_Flag='Y'
UNION ALL
SELECT Customer_ID FROM Non_Owner_Table WHERE Coupon_Flag='Y') ) then
'$40,000' else Previous_Price end as New_Price,
Previous_Price,
Vehicle_Brand_Code,
Type_of_Vehicle_Code,
Vehicle_Colour_Code,
Vehicle_Model_Code,
Last_Updated_Date_of_Row,
Last_Updated_Date_of_Table,
Type_of_Tyre,
Vehicle_Model_Sub_Code,
Vehicle_Model_Year
from
(
select vehicle_info.Vehicle_Identification_Number,
vehicle_price.price as previous_price,
'99105101' AS Customer_ID,
vehicle_info.Vehicle_Brand_Code,
vehicle_info.Type_of_Vehicle_Code,
vehicle_info.Vehicle_Colour_Code,
vehicle_info.Vehicle_Model_Code,
vehicle_info.Last_Updated_Date_of_Row,
vehicle_info.Last_Updated_Date_of_Table,
vehicle_info.Type_of_Tyre,
vehicle_info.Vehicle_Model_Sub_Code,
vehicle_info.Vehicle_Model_Year
from vehicle_info, vehicle_price where
vehicle_info.Vehicle_Identification_Number=vehicle_price.Vehicle_Identification_Number
) as B
where customer_id='99105101' and Vehicle_Identification_Number='VIN99105101'

```

Operators of Dealer employee and employee manager:-

Query to view the employee under them:-

Ex Query for particular employee:-

```

select
Dealer_Employee_Name,Employee_Salary,Employee_Address_Line_1,Employee_Ad
dress_Line_2,Employee_State_Code,Employee_Country,Employee_Zip_Code
from Dealer_Employee_Table where Dealer_Employee_Manager='Quinn N.
Canada'

```

Operations of mechanics and there service tickets they are working:-

Query:-

```

select Mechanic_ID_Number,Service_Center_Code,Service_Center_Name,
case when Service_Center_Code='SERV1' then 'SERV1201'
when Service_Center_Code='SERV2' then 'SERV1202'
when Service_Center_Code='SERV3' then 'SERV1202'
end as 'Working_ServiceTicket',
dealer,Service_Center_Address_1,Service_Center_Address_2,
Mechanic_First_Name, Mechanic_Last_Name,scc from
(select
new_scc.Mechanic_ID_Number,new_sci.Service_Center_Code,new_sci.Service_Cent
er_Name,
new_sci.dealer,new_sci.Service_Center_Address_1,new_sci.Service_Center_Address_
2,
new_scc.Mechanic_First_Name, new_scc.Mechanic_Last_Name,new_scc.scc
from
(select *,SUBSTRING_INDEX(Dealer_Code,',',1) as dealer from
Service_Center_Information) as new_sci,
(select *,SUBSTRING_INDEX(Service_Center_Code,',',1) as scc from
mechanic_details_table) as new_scc)
as outer_table,dealer_info where dealer_info.Dealer_Code=outer_table.dealer
;

```

Customer if they buy any vehicle:-

We have to give VIN to query that customer want to buy

Query:-

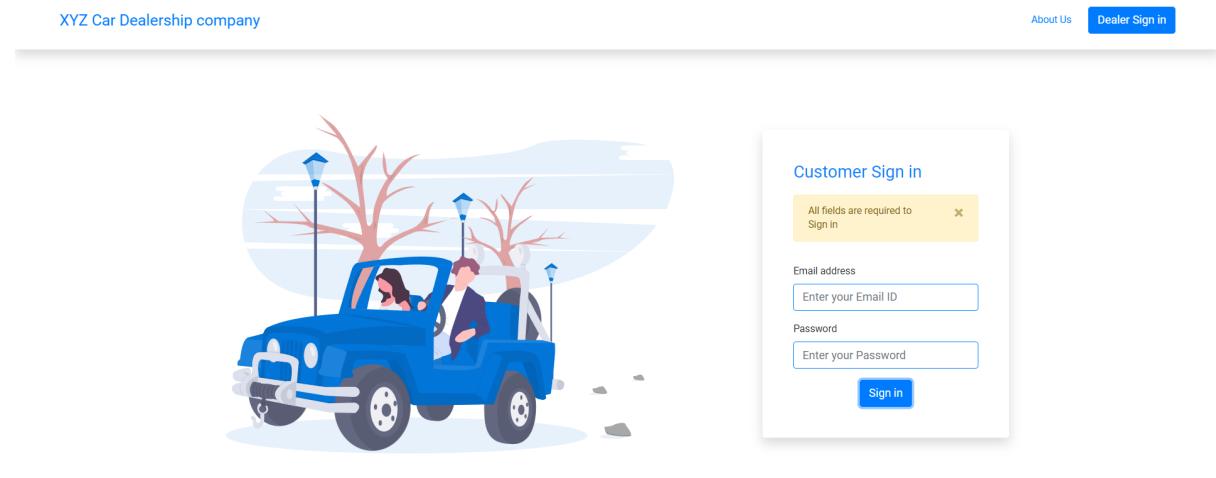
```

INSERT INTO Cust_Buy_Info (
select
A.Vehicle_Identification_Number,Vehicle_Brand_Code,Vehicle_Model_Code,Vehicle_Model_Sub_Co
de,Vehicle_Model_Year
,Type_of_Vehicle_Code,B.Colour_Description,A.Type_of_Tyre
,C.Price
FROM Vehicle_Info A
inner join Vehicle_Colour_Code_Table B ON A.Vehicle_Colour_Code=B.Vehicle_Colour_Code
INNER JOIN Vehicle_Price C ON
A.Vehicle_Identification_Number=C.Vehicle_Identification_Number

```

```
##where Vehicle_Identification_Number=""  
)
```

Error at login page if no input is given:



UI Component:-

- Our application is built with seamlessly beautiful and elegant design, architecture and implementation. We have used modern design for looks and aesthetics as well as the latest and greatest technologies. This system is built on Angular Framework, Node JS, Express JS and Bootstrap for the CSS styling.
- We have used REST APIs that were built using ExpressJS and NodeJS to create a connection between the Front-End and Back-End of the application.
- We took advantage of the Angular component structures system to reduce the lines of code and redundancy and reused some of the components repeatedly. We have also made the best out of the Angular routing system to navigate between pages securely.
- Error handling on the APIs integration was rough but we made it work, shout-out to Postman(An APIs creating and testing service) which really helped with data flow and familiarising with JSON objects.
- Our application lands on a login page which has an option to either login as a customer or a dealer.
- Now depending on the user, you get redirected to either customer dashboard or dealer dashboard where you can view, purchase, or update the products, services etc based on the user.

Githud link:-

https://github.com/SaiDevPrakashJ/AUTOMOBILE_SALES-AND-SERVICE-DATA-BASE-PROJECT

References:-

We have seen the pages of car dealerships and obtained the idea.

Ex:-

https://www.carvana.com/cars?utm_source=google&utm_medium=sem_nb&utm_term=1&utm_campaign=15848039259&utm_content=133778263884&utm_target=kwd-21049930&utm_creative=578559378206&utm_device=c&utm_adposition=&gclid=CjwKCAjwjZmTBhB4EiwAynRmD6OtueLSO-zzjfrxl1x8oc7VZb4UaP4CWRz-yt8rfHON9UKjWD2xQxoCOrcQAvD_BwE