Car Rental Project - Phase 2:

In phase 2, you will have to create the tables corresponding to the relational schema. For this task, you may use MySQL Workbench. In your report, add a listing of all CREATE TABLE statements. Specify as many constraints (key, referential integrity, Null, etc.) as you can in your relational schema.

Task 1: Create the following 4 tables for the CarRental database.

CUSTOMER: CustID, Name, Phone

RENTAL: CustID, VehicleID, StartDate, OrderDate, RentalType, Qty, ReturnDate, TotalAmount, PaymentDate

*****RentalType: '1' for Daily, and '7' for Weekly*

VEHICLE: VehicleID, Description, Year, Type, Category

RATE: Type, Category, Weekly, Daily
*Type: **1:**Compact, **2:**Medium, **3:**Large, **4:**SUV, **5:**Truck, **6:**VAN*

*Category: **0:**Basic, **1:**Luxury*
Note: You are not allowed to alter the given structure.

Task 2: Load the data from the text files into the corresponding tables.

Please, keep in mind that you are not allowed to modify or to add the data files in your answer here. After inserting the data run a query to calculate the total number of records per table. Submit a text to explain how you populated the table, the commands, the query command, along with the output of total records per table.

Task 3: Then execute the following queries on the database tables:

Question 1: Insert yourself as a New Customer. Do not provide the CustomerID in your query. **[2 points]**

Question 2: Update your phone number to (837) 721-8965 **[2 points]**

Question 3: Increase only daily rates for luxury vehicles by 5% **[2 points]**

Question 4-a: Insert a new luxury van with the following info: Honda Odyssey 2019, vehicle id: 5FNRL6H58KB133711
[2 points]

Question 4-b: You also need to insert the following rates:

5	1	900.00	150.00
6	1	800.00	135.00

[1 point]

Question 5: Return all Compact(1) & Luxury(1) vehicles that were available for rent from June 01, 2019 until June 20, 2019. List VechicleID as VIN, Description, year, and how many days have been rented so far. You need to change the weeks into days.
[15 points]

Question 6: Return a list with the remaining balance for the customer with the id '221'. List customer name, and the balance.
[3 points]

Question 7: Create a report that will return all vehicles. List the VehicleID as VIN, Description, Year, Type, Category, and Weekly and Daily rates. For the vehicle Type and Category, you need to use the SQL Case statement to substitute the numbers with text. Order your results based on Category (first Luxury and then Basic) and Type based on the Type number, not the text.

[4 points]

Question 8: What is the total of money that customers paid to us until today? **[2 points]**

Question 9-a: Create a report for the J. Brown customer with all vehicles he rented. List the description, year, type, and category. Also, calculate the unit price for every rental, the total duration mention if it is on weeks or days, the total amount, and if there is any payment. Similarly, as in Question 7, you need to change the numeric values to the corresponding text. Order the results by the StartDate.

[6 points]

Question 9-b: For the same customer return the current balance. **[2 points]**

Question 10: Retrieve all weekly rentals for the vechicleID '19VDE1F3XEE414842' that are not paid yet. List the Customer Name, the start and return date, and the amount.
[3 points]

Question 11: Return all customers that they never rent a vehicle. **[3 points]**

Question 12: Return all rentals that the customer paid on the StartDate. List Customer Name, Vehicle Description, StartDate, ReturnDate, and TotalAmount. Order by Customer Name.
[3 points]

<u>Do not forget to appropriately name the attributes of your queries.</u>

For this phase, you need to submit only **ONE** document file (.pdf or .docx) with:
- Task 1 commands, and if you have any comments to add, e.g., how you decided on specific data types, or constraints etc. [20 points]

- For task 2, describe your methodology, paste your commands (text), and let us know if there were any challenges. [20 points]

- For task 3, type the question description, your query text, a screenshot of the query output, and the total number of records returned or affected. Also, let us know if there were any challenges. Note that your query has to be editable. [50 points]

- Don't forget to type the honor code. [10 points]

Name your file as teammate1lastname_teammate2lastname.docx. Make sure that your document looks professional.

All students are expected to include the honor code on the first page of their assignment. Failing to do so will cost 10 points.

HONOR CODE
I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence. I promise that I will submit only work that I personally create or that I contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

STUDENTS ARE REQUIRED TO NOT SHARE ANY OF THE PROJECT RELATED DOCUMENTS AND SOLUTION WITH OTHERS IN ANY WAY OR FORM EVEN AFTER THE COMPLETION OF THE PROJECT. STUDENTS MAY, HOWEVER, SHOW THEIR PROJECTS TO INTERVIEWERS.