**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.

**TASK 1: CREATING TABLES**

**CUSTOMER TABLE**

CREATE TABLE CUSTOMER

(

[CustID] INTEGER PRIMARY KEY AUTOINCREMENT,

[Name] VARCHAR(30) NOT NULL,

[Phone] VARCHAR(15) NOT NULL

);

**VEHICLE TABLE**

CREATE TABLE VEHICLE

(

[VehicleID] VARCHAR NOT NULL,

[Description] VARCHAR(30) NOT NULL,

[Year] INTEGER(4) NOT NULL,

[Type] INTEGER(1) NOT NULL,

[Category] INTEGER NOT NULL,

PRIMARY KEY([VehicleID]),

FOREIGN KEY([Type]) REFERENCES [RATE] ([Type])

ON DELETE NO ACTION ON UPDATE NO ACTION,

FOREIGN KEY([Category]) REFERENCES [RATE] ([Category])

ON DELETE NO ACTION ON UPDATE NO ACTION

);

**RATE TABLE**

CREATE TABLE RATE

(

[Type] INTEGER(1) NOT NULL,

[Category] INTEGER NOT NULL,

[Weekly] INTEGER(1) NOT NULL,

[Daily] INTEGER(1) NOT NULL

);

**RENTAL TABLE**

CREATE TABLE RENTAL

(

[CustID] INTEGER NOT NULL,

[VehicleID] INTEGER NOT NULL,

[StartDate] DATE NOT NULL,

[OrderDate] DATE NOT NULL,

[RentalType] INTEGER NOT NULL,

[Qty] INTEGER NOT NULL,

[ReturnDate] DATE NOT NULL,

[TotalAmount] INTEGER NOT NULL,

[PaymentDate] DATE,

FOREIGN KEY([CustID]) REFERENCES [CUSTOMER] ([CustID])

ON DELETE NO ACTION ON UPDATE NO ACTION,

FOREIGN KEY([VehicleID]) REFERENCES [VEHICLE] ([VehicleID])

ON DELETE NO ACTION ON UPDATE NO ACTION,

);

**FOREIGN INDEXES**

*/\* These foreign keys are often joined together in queries, so we have created indexes for them \*/*

CREATE INDEX [IFK\_Customer] ON [CUSTOMER] ([CustID]);

CREATE INDEX [IFK\_Vehicle] ON [VEHICLE] ([VehicleID]);

**TASK 2: POPULATE TABLES**

To load data into the tables, we used the INSERT statement. The statement inserts the desired values/data into the appropriate table columns. After we use the "INSERT INTO" statement, we provide the names of the columns. This lets us know what each value is supposed to represent. We follow that up with "VALUES" and the data that we are inserting into each respective column.

**TOTAL NUMBER OF RECORDS**

|  |  |
| --- | --- |
| QUERY | SELECT (SELECT COUNT(\*) FROM CUSTOMER ) AS NumofCustomer,  (SELECT COUNT(\*) FROM RENTAL ) AS NumofRentals,  (SELECT COUNT(\*) FROM VEHICLE ) AS NumofVehicle,  (SELECT COUNT(\*) FROM RATE ) AS NumofRates; |
| RESULTS |  |

**DATA QUERY**

**CUSTOMER DATA**

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(201,"A. Parks","(214) 555-0127");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(202,"S. Patel","(849) 811-6298");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(203,"A. Hernandez","(355) 572-5385");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(204,"G. Carver","(753) 763-8656");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(205,"Sh. Byers","(912) 925-5332");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(206,"L. Lutz","(931) 966-1775");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(207,"L. Bernal","(884) 727-0591");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(208,"I. Whyte","(811) 979-7345");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(209,"L. Lott","(954) 706-2219");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(210,"G. Clarkson","(309) 625-1838");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(211,"Sh. Dunlap","(604) 581-6642");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(212,"H. Gallegos","(961) 265-8638");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(213,"L. Perkins","(317) 996-3104");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(214,"M. Beach","(481) 422-0282");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(215,"C. Pearce","(599) 881-5189");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(216,"A. Hess","(516) 570-6411");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(217,"M. Lee","(369) 898-6162");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(218,"R. Booker","(730) 784-6303");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(219,"A. Crowther","(325) 783-4081");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(220,"H. Mahoney","(212) 262-8829");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(221,"J. Brown","(644) 756-0110");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(222,"H. Stokes","(931) 969-7317");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(223,"J. Reeves","(940) 981-5113");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(224,"A. Mcghee","(838) 610-5802");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(225,"L. Mullen","(798) 331-7777");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(226,"R. Armstrong","(325) 783-4081");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(227,"J. Greenaway","(212) 262-8829");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(228,"K. Kaiser Acosta","(228) 576-1557");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(229,"D. Kirkpatrick","(773) 696-8009");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(230,"A. Odonnell","(439) 536-8929");

INSERT INTO [CUSTOMER] ([CustID],[Name],[Phone]) VALUES(231,"K. Kay","(368) 336-5403");

**VEHICLE DATA**

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('19VDE1F3XEE414842',"Acura ILX",2014,1,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('1FDEE3FL6EDA29122',"Ford E 350",2014,6,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('1FDRF3B61FEA87469',"Ford Super Duty Pickup",2015,5,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('1FTNF1CF2EKE54305',"Ford F Series Pickup",2014,5,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('1G1JD5SB3E4240835',"Chevrolet Optra",2014,1,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('1GB3KZCG1EF117132',"Chevrolet Silverado",2014,5,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('1HGCR2E3XEA305302',"Honda Accord",2014,2,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('1N4AB7AP2EN855026',"Nissan Sentra",2014,1,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('1N6BA0EJ9EN516565',"Nissan Titan",2014,5,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('1N6BF0KM0EN101134',"Nissan NV",2014,6,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('1VWCH7A3XEC037969',"Volkswagen Passat",2014,2,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('2HGFB2F94FH501940',"Honda Civic",2015,1,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('2T3DFREV0FW317743',"Toyota RAV4",2015,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('3MZBM1L74EM109736',"Mazda 3",2014,1,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('3N1CE2CP0FL409472',"Nissan Versa Note",2015,1,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('3N1CN7APXEK444458',"Nissan Versa",2014,1,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('3VW2A7AU1FM012211',"Volkswagen Golf",2015,1,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('4S4BRCFC1E3203823',"Subaru Outback",2014,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('4S4BSBF39F3261064',"Subaru Outback",2015,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('4S4BSELC0F3325370',"Subaru Outback",2015,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('5J6RM4H90FL028629',"Honda CR-V",2015,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('5N1AL0MM8EL549388',"Infiniti JX35",2014,4,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('5NPDH4AE2FH565275',"Hyundai Elantra",2015,1,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('5TDBKRFH4ES26D590',"Toyota Highlander",2014,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('5XYKT4A75FG610224',"Kia Sorento",2015,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('5XYKU4A7XFG622415',"Kia Sorento",2015,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('5XYKUDA77EG449709',"Kia Sorento",2014,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JF1GPAA61F8314971',"Subaru Impreza",2015,1,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JH4KC1F50EC800004',"Acura RLX",2014,3,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description], [Year],[Type],[Category]) VALUES ('JH4KC1F56EC000095',"Acura RLX",2014,3,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JM1BM1V35E1210570',"Mazda 3",2014,1,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JM3KE4DY4F0441471',"Mazda CX5",2015,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JM3TB3DV0E0015742',"Mazda CX9",2014,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JN8AS5MV0FW760408',"Nissan Rogue Select",2015,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JTEZUEJR7E5081641',"Toyota 4Runner",2014,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JTHBW1GG1F120DU53',"Lexus ES 300h",2015,2,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JTHCE1BL3F151DE04',"Lexus GS 350",2015,2,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JTHDL5EF9F5007221',"Lexus LS 460",2015,3,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JTHFF2C26F135BX45',"Lexus IS 250C",2015,1,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JTJHY7AX2F120EA11',"Lexus LX 570",2015,4,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JTJJM7FX2E152CD75',"Lexus GX460",2014,4,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('JTMBFREV1FJ019885',"Toyota RAV4",2015,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('KM8SN4HF0FU107203',"Hyundai Santa Fe",2015,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('KMHJT3AF1FU028211',"Hyundai Tucson",2015,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('KMHTC6AD8EU998631',"Hyundai Veloster",2014,1,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('KNAFZ4A86E5195865',"KIA Sportage",2014,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('KNAFZ4A86E5195895',"KIA Forte",2014,1,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('KNAGN4AD2F5084324',"Kia Optima Hybrid",2015,2,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('KNALN4D75E5A57351',"Kia Cadenza",2014,3,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('KNALU4D42F6025717',"Kia K900",2015,3,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('KNDPCCA65F7791085',"KIA Sportage",2015,4,0);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('WA1LGAFE8ED001506',"Audi Q7",2014,4,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('WAU32AFD8FN005740',"Audi A8",2015,3,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('WAUTFAFH0E0010613',"Audi A5",2014,1,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('WBA3A9G51ENN73366',"BMW 3 Series",2014,1,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('WBAVL1C57EVR93286',"BMW X1",2014,4,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('WDCGG0EB0EG188709',"Mercedes\_Benz GLK",2014,1,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('YV440MDD6F2617077',"Volvo XC60",2015,4,1);

INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category]) VALUES ('YV4940NB5F1191453',"Volvo XC70",2015,4,1);

**RATE DATA**

INSERT INTO [RATE] ([Type],[Category],[Weekly],[Daily]) VALUES (1,0,480,80);

INSERT INTO [RATE] ([Type],[Category],[Weekly],[Daily]) VALUES (1,1,600,100);

INSERT INTO [RATE] ([Type],[Category],[Weekly],[Daily]) VALUES (2,0,530,90);

INSERT INTO [RATE] ([Type],[Category],[Weekly],[Daily]) VALUES (2,1,660,110);

INSERT INTO [RATE] ([Type],[Category],[Weekly],[Daily]) VALUES (3,0,600,100);

INSERT INTO [RATE] ([Type],[Category],[Weekly],[Daily]) VALUES (3,1,710,120);

INSERT INTO [RATE] ([Type],[Category],[Weekly],[Daily]) VALUES (4,0,685,115);

INSERT INTO [RATE] ([Type],[Category],[Weekly],[Daily]) VALUES (4,1,800,135);

INSERT INTO [RATE] ([Type],[Category],[Weekly],[Daily]) VALUES (5,0,780,130);

INSERT INTO [RATE] ([Type],[Category],[Weekly],[Daily]) VALUES (6,0,685,115);

**RENTAL DATA**

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (203,'JM3KE4DY4F0441471','2019-09-09','2019-05-22',1,4,'2019-09-13',460,'2019-09-09');

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (210,'19VDE1F3XEE414842','2019-11-01','2019-10-28',7,2,'2019-11-15',1200,NULL);

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (210,'JTHFF2C26F135BX45','2019-05-01','2019-04-15',7,1,'2019-05-08',600,'2019-05-08');

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (210,'JTHFF2C26F135BX45','2019-11-01','2019-10-28',7,2,'2019-11-15',1200,NULL);

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (210,'WAUTFAFH0E0010613','2019-11-01','2019-10-28',7,2,'2019-11-15',1200,NULL);

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (210,'WBA3A9G51ENN73366','2019-11-01','2019-10-28',7,2,'2019-11-15',1200,NULL);

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (210,'WBA3B9C59EP458859','2019-11-01','2019-10-28',7,2,'2019-11-15',1200,NULL);

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (210,'WDCGG0EB0EG188709','2019-11-01','2019-10-28',7,2,'2019-11-15',1200,NULL);

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (212,'19VDE1F3XEE414842','2019-06-10','2019-04-15',7,3,'2019-07-01',1800,'2019-06-10');

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (216,'1N6BF0KM0EN101134','2019-08-02','2019-03-15',7,4,'2019-08-30',2740,'2019-08-02');

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (216,'1N6BF0KM0EN101134','2019-08-30','2019-03-15',1,2,'2019-09-01',230,'2019-08-02');

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (221,'19VDE1F3XEE414842','2019-07-01','2019-06-12',7,1,'2019-07-08',600,'2019-07-01');

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (221,'19VDE1F3XEE414842','2019-07-09','2019-06-12',1,2,'2019-07-11',200,'2019-07-01');

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (221,'19VDE1F3XEE414842','2020-01-01','2019-12-15',7,4,'2020-01-29',2400,NULL);

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (221,'JTHFF2C26F135BX45','2020-01-01','2019-12-15',7,4,'2020-01-29',2400,NULL);

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (221,'WAUTFAFH0E0010613','2019-07-01','2019-06-12',7,1,'2019-07-08',600,'2019-07-01');

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (221,'WAUTFAFH0E0010613','2019-07-09','2019-06-12',1,2,'2019-07-11',200,'2019-07-01');

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (221,'WAUTFAFH0E0010613','2020-01-01','2019-12-15',7,4,'2020-01-29',2400,NULL);

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (221,'WBA3A9G51ENN73366','2020-01-01','2019-12-15',7,4,'2020-01-29',2400,NULL);

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (221,'WBA3B9C59EP458859','2020-01-01','2019-12-15',7,4,'2020-01-29',2400,NULL);

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (221,'WDCGG0EB0EG188709','2020-01-01','2019-12-15',7,4,'2020-01-29',2400,NULL);

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (229,'19VDE1F3XEE414842','2019-05-06','2019-04-12',1,4,'2019-05-10',400,'2019-05-06');

INSERT INTO [RENTAL] ([CustID],[VehicleID],[StartDate],[OrderDate],[RentalType],[Qty],[ReturnDate],[TotalAmount],[PaymentDate]) VALUES (229,'WAUTFAFH0E0010613','2019-05-06','2019-04-12',1,4,'2019-05-10',400,'2019-05-06');

**TASK 3: QUERIES**

1. **Insert yourself as a New Customer. Do not provide the CustomerID in your query.**

|  |  |
| --- | --- |
| QUERY | INSERT INTO Customer (Name, Phone) VALUES ('N. Alyasiri','(123) 456-7890'); |
| RESULTS |  |
| NUMBER OF RECORDS | 32 |

1. **Update your phone number to (837) 721-8965**

|  |  |
| --- | --- |
| QUERY | UPDATE Customer  SET Phone = '(837) 721-8965'  WHERE CustID = '232'; |
| RESULTS |  |
| NUMBER OF RECORDS | 32 |

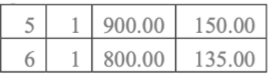
1. **Increase only daily rates for luxury vehicles by 5%**

|  |  |
| --- | --- |
| QUERY | UPDATE Rate  SET Daily = (Daily \* 0.05) + Daily  WHERE Category = 1; |
| RESULTS |  |
| NUMBER OF RECORDS | 10 |

**4-a. Insert a new luxury van with the following info: Honda Odyssey 2019, vehicle id: 5FNRL6H58KB133711**

|  |  |
| --- | --- |
| QUERY | INSERT INTO [VEHICLE] ([VehicleID],[Description],[Year],[Type],[Category])  VALUES ('5FNRL6H58KB133711',"Honda Odyssey",2019,6,1); |
| RESULTS |  |
| NUMBER OF RECORDS | 61 |

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



|  |  |
| --- | --- |
| QUERY | INSERT INTO Rate (Type, Category, Weekly, Daily)  VALUES (5,1,900,150);  INSERT INTO Rate (Type, Category, Weekly, Daily)  VALUES (6,1,800,135); |
| RESULTS |  |
| NUMBER OF RECORDS | 12 |

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

|  |  |
| --- | --- |
| QUERY | SELECT V.VehicleID AS VIN, Description, Year,  JULIANDAY(R.returnDate) - JULIANDAY(R.startDate) AS 'Days Rented'  FROM Vehicle V  JOIN Rental R ON V.VehicleID = R.VehicleID  WHERE Type = 1  AND Category = 1  AND (R.startDate NOT BETWEEN '2019-06-01' AND '2019-06-20')  AND (R.returnDate NOT BETWEEN '2019-06-01' AND '2019-06-20'); |
| RESULTS |  |
| NUMBER OF RECORDS | 19 |

**6. Return a list with the remaining balance for the customer with the id ‘221’. List customer name, and the balance.**

|  |  |
| --- | --- |
| QUERY |  |
| RESULTS |  |

**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.**

|  |  |
| --- | --- |
| QUERY | SELECT VehicleID AS VIN,  Description,  Year,  CASE  WHEN V.Type = '1' THEN 'Compact'  WHEN V.Type = '2' THEN 'Medium'  WHEN V.Type = '3' THEN 'Large'  WHEN V.Type = '4' THEN 'SUV'  WHEN V.Type = '5' THEN 'Truck'  WHEN V.Type = '6' THEN 'VAN'  END AS Type,  CASE  WHEN V.Category = '0' THEN 'Basic'  WHEN V.Category = '1' THEN 'Luxury'  END AS Category,  Weekly AS 'Weekly Rate',  Daily AS 'Daily Rate'  FROM VEHICLE AS V, RATE AS T  WHERE V.Type = T.Type  AND V.Category = T.Category  ORDER BY Category DESC, V.Type; |
| RESULTS |  |
| NUMBER OF RECORDS | 61 |

**8. What is the total of money that customers paid to us until today?**

|  |  |
| --- | --- |
| QUERY | SELECT SUM(TotalAmount) AS 'Total Amount'  FROM Rental  WHERE PaymentDate IS NOT NULL; |
| RESULTS |  |
| NUMBER OF RECORDS | 1 |

**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.**

|  |  |
| --- | --- |
| QUERY | SELECT Description,  Year,  CASE  WHEN Type = '1' THEN 'Compact'  WHEN Type = '2' THEN 'Medium'  WHEN Type = '3' THEN 'Large'  WHEN Type = '4' THEN 'SUV'  WHEN Type = '5' THEN 'Truck'  WHEN Type = '6' THEN 'VAN'  END AS Type,  CASE  WHEN Category = '0' THEN 'Basic'  WHEN Category = '1' THEN 'Luxury'  END AS Category,  CASE  WHEN RentalType = '1' THEN 'Daily'  WHEN RentalType = '7' THEN 'Weekly'  END AS RentalType,  TotalAmount/Qty AS 'Unit Price',  JULIANDAY(R.returnDate) - JULIANDAY(R.startDate) AS 'Duration (in Days)',  TotalAmount,  CASE  WHEN PaymentDate IS NULL THEN 'NOT PAID'  ELSE 'PAID'  END AS Payment  FROM CUSTOMER as C, VEHICLE as V, RENTAL as R  WHERE C.CustID = R.CustID  AND R.VehicleID = V.VehicleID  AND C.Name = 'J. Brown'  ORDER BY StartDate DESC; |
| RESULTS |  |
| NUMBER OF RECORDS | 10 |

**9.b. For the same customer return the current balance.**

|  |  |
| --- | --- |
| QUERY | SELECT SUM(TotalAmount)  FROM CUSTOMER as C, VEHICLE as V, RENTAL as R  WHERE C.CustID = R.CustID  AND R.VehicleID = V.VehicleID  AND C.Name = 'J. Brown'  AND TotalAmount IN (  SELECT TotalAmount  FROM RENTAL  WHERE PaymentDate IS NULL ); |
| RESULTS |  |
| NUMBER OF RECORDS | 1 |

**10. Retrieve all weekly rentals for the vehicleID ‘19VDE1F3XEE414842’ that are not paid yet. List the Customer Name, the start and return date, and the amount.**

|  |  |
| --- | --- |
| QUERY | SELECT C.Name, R.StartDate, R.ReturnDate, R.TotalAmount  FROM CUSTOMER as C, VEHICLE as V, RENTAL as R  WHERE C.CustID = R.CustID  AND R.VehicleID = V.VehicleID  AND V.VehicleID = "19VDE1F3XEE414842"  AND R.RentalType = '7'  AND R.PaymentDate IS NULL; |
| RESULTS |  |
| NUMBER OF RECORDS | 2 |

**11. Return all customers that they never rent a vehicle**

|  |  |
| --- | --- |
| QUERY | SELECT DISTINCT Customer.\*  FROM Customer  WHERE Customer.CustID NOT IN (  SELECT Rental.CustID  FROM RENTAL); |
| RESULTS |  |
| NUMBER OF RECORDS | 27 |

**12. Return all rentals that the customer paid on the StartDate. List Customer Name, Vehicle Description, StartDate, ReturnDate, and TotalAmount. Order by Customer Name.**

|  |  |
| --- | --- |
| QUERY | SELECT C.Name, V.Description, R.StartDate, R.ReturnDate, R.TotalAmount  FROM CUSTOMER as C, VEHICLE as V, RENTAL as R  WHERE C.CustID = R.CustID  AND R.VehicleID = V.VehicleID  AND R.StartDate = R.PaymentDate  ORDER BY C.Name; |
| RESULTS |  |
| NUMBER OF RECORDS | 7 |