

**Principles of Database Svstems. Section B**

# Project\_Part\_1

Prepared by

**Lingchang Zhou lz2708**

**Tianyi Wang tw2396**

**Dinzge Yu dy2193**

# Outline

1. **Description And Assumptions**
2. **Logical Model**
3. **Relational Model**
4. **Table Records**
5. **DDL Code**
6. **DML Code**
7. **Trigger Code**
8. **Queries Results**

# 1. Description & Assumptions

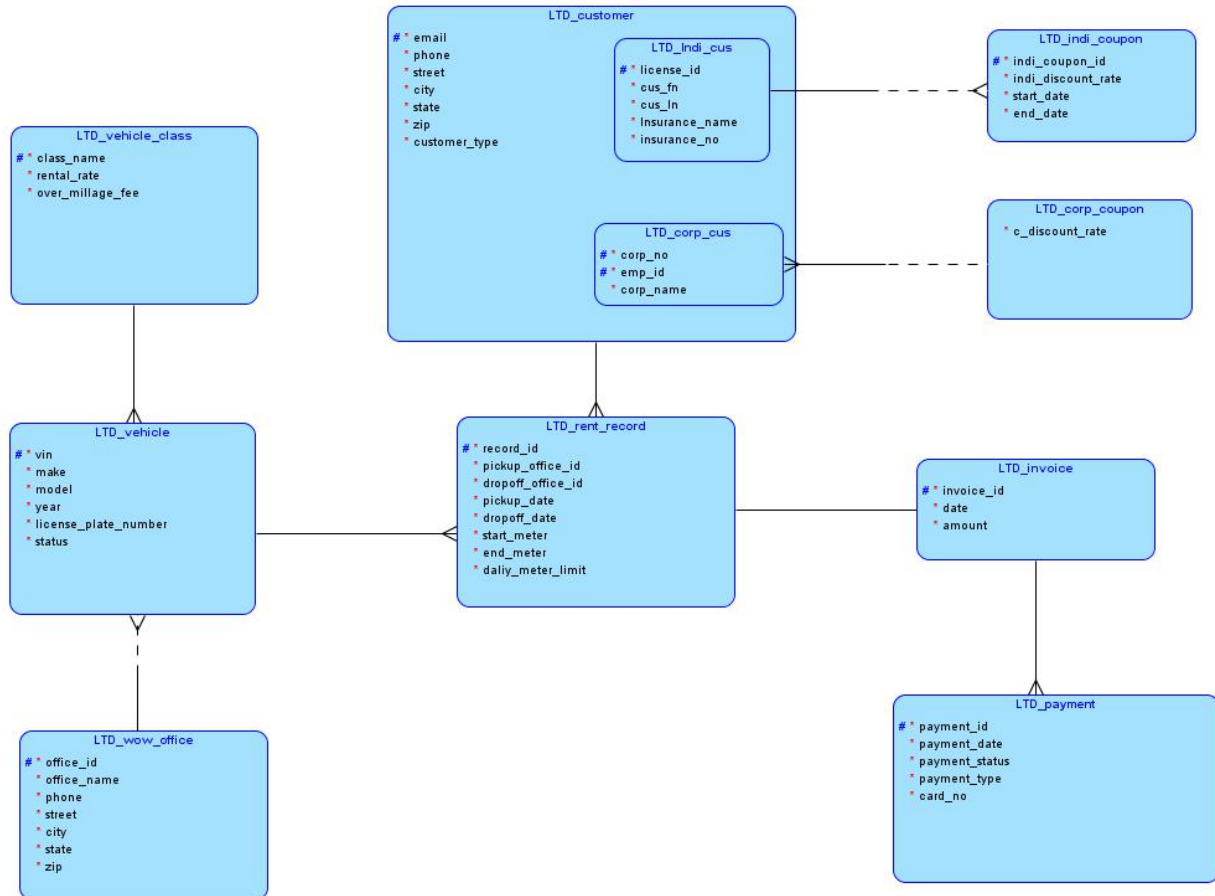
The business case is to build a data management system for WOW which is a car rental company. Based on this, we conduct two entities called CUSTOMER and VEHICLE. Since a customer may rent several vehicles for one time and a vehicle may be rent for several times by a same customer, we create an Intersect entity called RENT\_RECORD. Besides, the customer is divided into individual customer and corporation customer, so we add these two as a sub type of customer. Since WOW mails discount coupons to their customer, we also add entities called INDI\_COUPON and CORP\_COUPON connected to INDI\_CUS and CORP\_CUS respectively. Also, vehicle is required to record its class and office location. In order to maintain and update this information in an easier way, we also add these two entities connected to VEHICLE. Finally, we add INVOICE and PAYMENT entity according to the requirements.

Apart from that, we also make several **assumptions**:

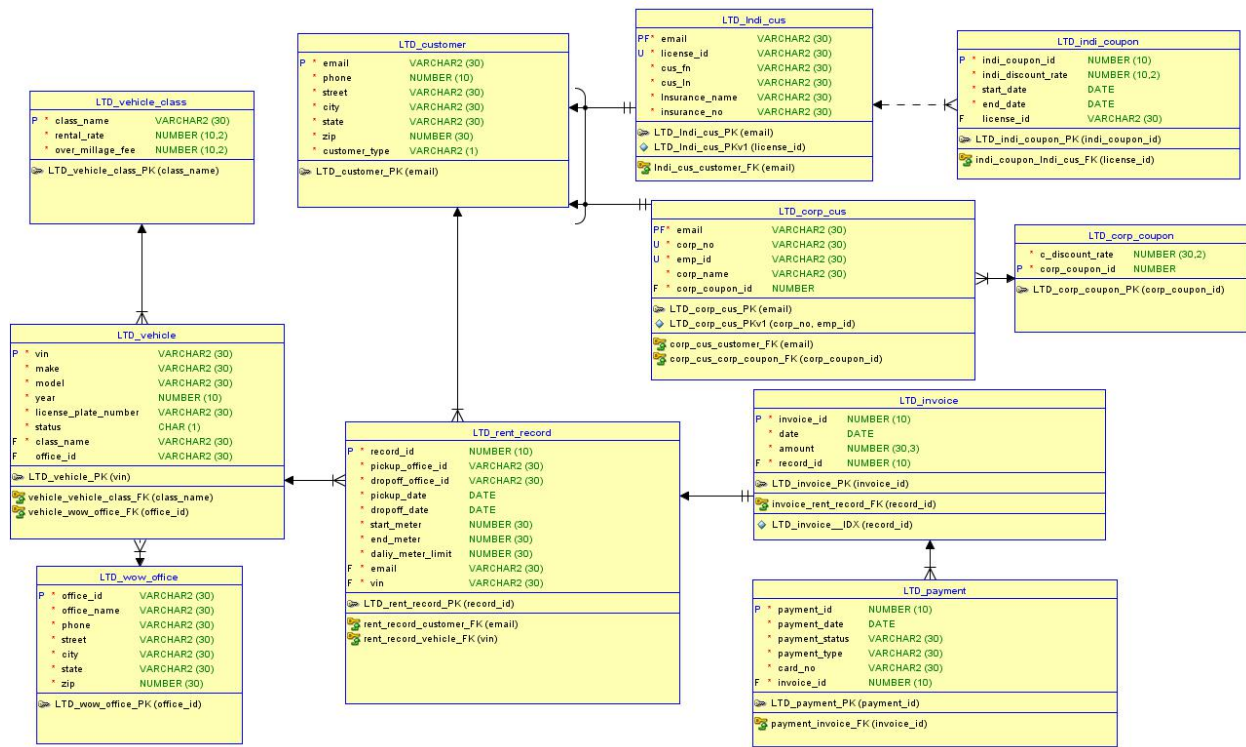
1. neighborhood residents who get discount coupons are include in individual customers.
2. we assume that corporation customers already have insurance provided by their corporation.
3. we added coupon ID, office ID, record ID, invoice ID and payment ID for their entities primary key respectively.
4. we assume payment status is divided into pending, success, fail, so we add payment\_status in PAYMENT
5. office may not have available vehicles.

6. If the daily\_limit attribute in the rent\_record table is -1, that means this vehicle has unlimited daily millage.
7. If the status attribute in vehicle is 1 that means this vehicle is ready to be rent, 0 means it it not.

## 2. Logical Model



### 3. Relational Model



## 4. Table Records

### 1. LTD\_CUSTOMER

EMAIL	PHONE	STREET	CITY	STATE	ZIP	CUSTOMER_TYPE
reikedezotru-1045@gmail.com	6464006103	1268 Elm Drive	Garden City	NY	11530	i
wajougroulage-5993@yopmail.com	4402423072	860 Ralph Drive	Lorain	OH	44052	c
pruppitrubuta-1541@outlook.com	5309181100	1399 Maxwell Farm Road	Mount Shasta	CA	96067	c
solujicifrou-1777@yopmail.com	3166950524	334 Williams Lane	Wichita	KS	67202	c
trissaddeedoutoi-6616@163.com	3375991592	4021 Bridge Avenue	Pine Prairie	LA	70576	i
naffureussofou-8723@nyu.edu	9175520909	451 Duncan Avenue	New York	NY	10016	c
ceissazassuddeu-8182@nyu.edu	9172040218	4985 Small Street	New York	NY	10038	c
crossinnaucagre@icloud.com	4349718347	1677 North Street	Charlottesville	VA	22903	i
keigoippeipeitrei@icloud.com	2675252024	2671 Quincy Street	Philadelphia	PA	19108	i
hoppadilloummu-2988@gmail.com	2483029308	2655 Bombardier Way	Southfield	MI	48075	i
crebreveyecre-4260@gmail.com	7204913594	4213 Clearview Drive	Longmont	CO	80501	c
breveyecrece-1984@outlook.com	3343358033	447 Fleming Street	Luverne	AL	36049	c
yaudajedeikeu-3539@163.com	5135643271	3454 Rogers Street	Cincinnati	OH	45202	i
trujeigaulattou-7527@gmail.com	8643607413	1068 Deer Haven Drive	Piedmont	SC	29673	i
podducezesse-2447@icloud.com	7177499568	2109 Aaron Smith Drive	Waynesboro	PA	17268	i
todducemis-2547@yopmail.com	7039860119	2352 Broadcast Drive	Washington	VA	20004	c
yaumewekoha-8071@yahoo.com	2064907916	4488 Elliot Avenue	Seattle	WA	98101	i
xaumeweloha-1091@yopmail.com	2099875145	2555 Freed Drive	Stockton	CA	95202	c
trebregrayodeu-5596@nyu.edu	9172045718	381 Farnum Road	New York	NY	10004	c
doixauwunuse-5266@qq.com	9172096196	1905 Bell Street	New York	NY	10038	i

### 2. LTD\_INDI\_CUS

EMAIL	LICENSE_ID	CUS_FN	CUS_LN	INSURANCE_NAME	INSURANCE_NO
reikedezotru-1045@gmail.com	588203864	Alayna	Stracke	Nationwide	5057777700
trissaddeedoutoi-6616@163.com	002951620	Linwood	Dare	Geico	1409868243
crossinnaucagre@icloud.com	908879746	Enola	Kessler	Travelers	6829484661
keigoippeipeitrei@icloud.com	25296257	Bridgette	Hand	Nationwide	5410361553
hoppadilloummu-2988@gmail.com	H588540221069	Sam	Predovic	Auto-Owners Insurance	2533785131
yaudajedeikeu-3539@163.com	ND158958	Abner	Romaguera	Erie Insurance	2330015708
trujeigaulattou-7527@gmail.com	058600537	Reece	Upton	Travelers	3813212070
podducezesse-2447@icloud.com	26806489	Allison	Franecki	State Farm	4267990931
yaumewekoha-8071@yahoo.com	FDQWERL25495	Elna	McGlynn	Erie Insurance	2431337716
doixauwunuse-5266@qq.com	101016329	Einar	Ferry	Auto-Owners Insurance	4642951218



### 3. LTD\_CORP\_CUS

EMAIL	CORP_NO	EMP_ID	CORP_NAME	CORP_COUPON_ID
wajougroulage-5993@yopmail.com	4	CH84978299	CHICO Hairdressing Inc.	1727843195
pruppitrubuta-1541@outlook.com	2	MS58616803	Microsoft Corporation	5282244975
solujicifrou-1777@yopmail.com	5	TG85184809	Techni-Glass Ltd.	2925966320
naffureussofou-8723@nyu.edu	1	N63261165	New York University	7165052063
ceissazassuddeu-8182@nyu.edu	1	N77414822	New York University	7165052063
crebreveyecre-4260@gmail.com	3	G809707673	Alphabet Inc.	6315255780
breveyecrece-1984@outlook.com	2	MS43062333	Microsoft Corporation	5282244975
todducemis-2547@yopmail.com	6	A24445062	Aceable, Inc.	952265369
xaumeweloha-1091@yopmail.com	7	I02810430	Ibotta, Inc.	8818590786
trebregrayodeu-5596@nyu.edu	1	N36213671	New York University	7165052063

### 4. LTD\_INDI\_COUPON

INDI_COUPON_ID	INDI_DISCOUNT_RATE	START_DATE	END_DATE	LICENSE_ID
6264083937	.8	01-AUG-20	01-SEP-20	588203864
4200713646	.9	01-OCT-20	01-DEC-20	588203864
7193258878	.9	20-JAN-20	20-FEB-20	002951620
9735879478	.7	20-MAR-20	20-APR-20	002951620
4198309397	.9	01-OCT-20	01-NOV-20	908879746
8940854222	.6	01-JAN-21	01-MAR-21	25296257
8918830061	.8	01-JUN-21	01-JUL-21	H588540221069
4299540433	.8	01-MAY-21	01-JUN-21	ND158958
4422823870	.9	01-APR-21	01-MAY-21	058600537
5294034487	.75	01-MAY-21	01-AUG-21	26806489
6428346312	.85	20-JAN-21	20-MAY-21	FDQWERL25495
2108149161	.9	01-JAN-22	21-JAN-22	101016329
9927676813	.6	01-DEC-21	21-DEC-21	101016329



## 5. LTD\_CORP\_COUPON

C_DISCOUNT_RATE	CORP_COUPON_ID
.6	7165052063
.8	5282244975
.9	1727843195
.85	6315255780
.8	2828349816
.7	952265369
.7	8560060722
.8	2925966320
.9	2868170271
.7	8818590786

## 6. LTD\_RENT\_RECORD

RECORD_ID	PICKUP_OFFICE_ID	DROPOFF_OFFICE_ID	PICKUP_DATE	DROPOFF_DATE	START_METER	END_METER	DAILY_METER_LIMIT	EMAIL	VIN
1	1	1	17-JUN-19	18-JUN-19	12000	12300	500	reikedezotru-1045@gmail.com	1N4DL01D2XC212827
2	1	1	20-MAY-20	22-MAY-20	12000	12300	500	wajougroulage-5993@yopmail.com	3VWPP7AJXDM655051
3	2	2	10-OCT-20	11-OCT-20	10000	12300	-1	pruppitrubuta-1541@outlook.com	1FTFW1ET9DFC24713
4	3	3	08-JUN-21	09-JUN-21	15000	16009	500	solujicifrou-1777@yopmail.com	1D7HU18206S690287
5	4	4	12-JUN-21	20-JUN-21	10000	10700	-1	trissaddeedoutoi-6616@163.com	1FTYR11E06PA11413
6	5	5	20-JUN-21	25-JUN-21	9000	10700	-1	naffureussofou-8723@nyu.edu	19UUA5648XA027300
7	6	6	25-JUN-21	27-JUN-21	8000	8500	1000	ceissazassuddeu-8182@nyu.edu	174GS48K86C205394
8	7	7	01-MAY-21	05-MAY-21	8000	8500	1000	crossinnaucagne@icloud.com	3GNAL2EK5D5687791
9	8	8	10-JAN-22	11-JAN-22	8000	8500	1000	keigoippeitrei@icloud.com	1FTCR10A0TUA90846
10	9	9	20-FEB-22	22-FEB-22	8000	8500	1000	hoppadilloummu-2988@gmail.com	3TEEP21A460119291

## 7. LTD\_VEHICLE

VIN	MAKE	MODEL	YEAR	LICENSE_PLATE_NUMBER	STATUS	CLASS_NAME	OFFICE_ID
1N4DL01D2XC212827	Nissan	Maxima	2010	SC39724	1	mid size car	1
3VWPP7A3XDM655051	Nissan	Maxima	2011	DV38576	1	mid size car	1
1FTFW1ET9DFC24713	Audi	RS	2011	9682TX	1	race car	2
1D7HU18206S690287	Audi	A4	2010	XSZ904	1	small car	3
1FTYR11E06PA11413	Toyota	Camery	2007	6L83236	1	mid size car	4
19UUA5648XA027300	BMW	X5	2015	8CEW092	1	SUV	5
1J4GS48K86C205394	BMW	M1	2010	BGS536	1	convertable	6
3GNAL2EK5DS687791	Ford	Mustang	2014	GML5411	1	convertable	7
1FTCR10A0TUA90846	Ford	Mustang	2018	CLD6169	1	convertable	8
JTEEP21A460119291	Lamborghini	AVENTADOR	2019	6BPC403	1	race car	9
KNAGM4A79B5148561	Lamborghini	URUS	2019	412SKB	1	SUV	9
JM1BK144671795114	Aston Martin	DB11	2020	7SKX652	1	race car	9
3FA6P0LUXER272699	Aston Martin	Valkyrie	2022	BB9749	1	race car	1

## 8. LTD\_WOW\_OFFICE

OFFICE_ID	OFFICE_NAME	PHONE	STREET	CITY	STATE	ZIP
1	A office	8156222725	lombardy street	Landilne	IL	7281
2	B office	3233438342	sunset avenue	caliform	CA	17782
3	C office	7347837284	hasker streer	centre city	MI	992871
4	D office	8172624391	axe first	sandy county	TX	274627
5	E office	9193961849	st kings	matilda city	NC	872733
6	F office	3372703067	st david	leon village	LA	165887
7	G office	5079265194	st mary	jasmin city	MN	766437
8	H office	3346451904	greate jhson	lagard	AL	8892
9	I office	9704656295	loiuse street	swiiss county	CO	727661
10	J office	3153086474	pavonia avenue	jesus city	NJ	7306

## 9. LTD\_VEHICLE\_CLASS

CLASS_NAME	RENTAL_RATE	OVER_MILLAGE_FEE
small car	50	1
mid size car	60	2
large car	70	3
truck	75	4
SUV	80	5
Premium SUV	85	6
Mini Van	90	7
convertable	95	8
race car	100	9
electricity car	105	10

## 10. LTD\_INVOICE

INVOICE_ID	date	AMOUNT	RECORD_ID
1	18-JUN-19	18000	1
2	22-MAY-20	18000	2
3	11-OCT-20	20609	3
4	09-JUN-21	25589	4
5	20-JUN-21	1342	5
6	25-JUN-21	8425	6
7	27-JUN-21	47500	7
8	05-MAY-21	47500	8
9	11-JAN-22	47500	9
10	22-FEB-22	50000	10

# 11. LTD\_PAYMENT

PAYMENT_ID	PAYMENT_DATE	PAYMENT_STATUS	PAYMENT_TYPE	CARD_NO	INVOICE_ID
1	18-JUN-19	approved	credit card	4539727885860973	1
2	22-MAY-20	approved	debit card	4929622139534755	2
3	11-OCT-20	approved	debit card	4716035186596478613	3
4	09-JUN-21	approved	credit card	2221007539255434	4
5	20-JUN-21	approved	bebit card	5221766410559791	5
6	25-JUN-21	approved	credit card	5512435899910044	6
7	27-JUN-21	approved	credit card	373903761866783	7
8	05-MAY-21	approved	debit card	348420970316866	8
9	11-JAN-22	approved	credit card	372434040236961	9
10	22-FEB-22	approved	credit card	6011961356280666	10

## 5. DDL Code

-- Oracle SQL Developer Data Modeler 21.4.2.059.0838

-- Time: 2022-04-02 12:53:59 EDT

-- Version: Oracle Database 21c

-- Type: Oracle Database 21c

-- predefined type, no DDL – MDSYS.SDO\_GEOMETRY

-- predefined type, no DDL – XMLTYPE

```
CREATE TABLE ltd_corp_coupon (  
    c_discount_rate NUMBER(30, 2) NOT NULL,  
    corp_coupon_id  NUMBER NOT NULL  
);
```

```
COMMENT ON COLUMN ltd_corp_coupon.c_discount_rate IS  
    'the rate of the discount';
```

```
ALTER TABLE ltd_corp_coupon ADD CONSTRAINT ltd_corp_coupon_pk PRIMARY KEY  
( corp_coupon_id );
```

```
CREATE TABLE ltd_corp_cus (  
    email          VARCHAR2(30) NOT NULL,
```

```
corp_no      VARCHAR2(30) NOT NULL,  
emp_id       VARCHAR2(30) NOT NULL,  
corp_name    VARCHAR2(30) NOT NULL,  
corp_coupon_id NUMBER NOT NULL  
);
```

```
COMMENT ON COLUMN ltd_corp_cus.email IS  
    'email of the customer';
```

```
COMMENT ON COLUMN ltd_corp_cus.corp_no IS  
    'the cop registrartion number';
```

```
COMMENT ON COLUMN ltd_corp_cus.emp_id IS  
    'the employee id of the customer';
```

```
COMMENT ON COLUMN ltd_corp_cus.corp_name IS  
    'the name of the corp';
```

```
ALTER TABLE ltd_corp_cus ADD CONSTRAINT ltd_corp_cus_pk PRIMARY KEY ( email );
```

```
ALTER TABLE ltd_corp_cus ADD CONSTRAINT ltd_corp_cus_pkv1 UNIQUE ( corp_no,  
                                                                    emp_id );
```

```
CREATE TABLE ltd_customer (  
    email      VARCHAR2(30) NOT NULL,  
    phone      NUMBER(10) NOT NULL,
```

```
street    VARCHAR2(30) NOT NULL,  
city      VARCHAR2(30) NOT NULL,  
state     VARCHAR2(30) NOT NULL,  
zip       NUMBER(30) NOT NULL,  
customer_type VARCHAR2(1) NOT NULL  
);
```

```
ALTER TABLE ltd_customer
```

```
ADD CONSTRAINT ch_inh_ltd_customer CHECK ( customer_type IN ( 'c', 'i' ) );
```

```
COMMENT ON COLUMN ltd_customer.email IS  
'email of the customer';
```

```
COMMENT ON COLUMN ltd_customer.phone IS  
'phone number of the customer';
```

```
COMMENT ON COLUMN ltd_customer.street IS  
'the street name of the address';
```

```
COMMENT ON COLUMN ltd_customer.city IS  
'the city of the address';
```

```
COMMENT ON COLUMN ltd_customer.state IS  
'the state of the address';
```

```
COMMENT ON COLUMN ltd_customer.zip IS
```



'the zip code of the address';

COMMENT ON COLUMN ltd\_customer.customer\_type IS

'the type of the customer';

ALTER TABLE ltd\_customer ADD CONSTRAINT ltd\_customer\_pk PRIMARY KEY ( email );

CREATE TABLE ltd\_indi\_coupon (

    indi\_coupon\_id    NUMBER(10) NOT NULL,

    indi\_discount\_rate NUMBER(10, 2) NOT NULL,

    start\_date        DATE NOT NULL,

    end\_date          DATE NOT NULL,

    license\_id        VARCHAR2(30)

);

COMMENT ON COLUMN ltd\_indi\_coupon.indi\_coupon\_id IS

'the coupon id ';

COMMENT ON COLUMN ltd\_indi\_coupon.indi\_discount\_rate IS

'the rate of the discount';

COMMENT ON COLUMN ltd\_indi\_coupon.start\_date IS

'the start date';

COMMENT ON COLUMN ltd\_indi\_coupon.end\_date IS

'the end date of the coupon';

```
ALTER TABLE ltd_indi_coupon ADD CONSTRAINT ltd_indi_coupon_pk PRIMARY KEY  
( indi_coupon_id );
```

```
ALTER TABLE ltd_indi_coupon ADD CONSTRAINT end_date CHECK  
(end_date>=start_date);
```

```
CREATE TABLE ltd_indi_cus (  
    email      VARCHAR2(30) NOT NULL,  
    license_id  VARCHAR2(30) NOT NULL,  
    cus_fn      VARCHAR2(30) NOT NULL,  
    cus_ln      VARCHAR2(30) NOT NULL,  
    insurance_name VARCHAR2(30) NOT NULL,  
    insurance_no VARCHAR2(30) NOT NULL  
);
```

```
COMMENT ON COLUMN ltd_indi_cus.email IS  
    'email of the customer';
```

```
COMMENT ON COLUMN ltd_indi_cus.license_id IS  
    'the driver license number';
```

```
COMMENT ON COLUMN ltd_indi_cus.cus_fn IS  
    'the first name of the customer';
```

```
COMMENT ON COLUMN ltd_indi_cus.cus_ln IS
```

'the last name of the customer';

COMMENT ON COLUMN ltd\_indi\_cus.insurance\_name IS

'the insurance company name';

COMMENT ON COLUMN ltd\_indi\_cus.insurance\_no IS

'the insurance number';

ALTER TABLE ltd\_indi\_cus ADD CONSTRAINT ltd\_indi\_cus\_pk PRIMARY KEY ( email );

ALTER TABLE ltd\_indi\_cus ADD CONSTRAINT ltd\_indi\_cus\_pkv1 UNIQUE ( license\_id );

CREATE TABLE ltd\_invoice (

    invoice\_id NUMBER(10) NOT NULL,

    "date"    DATE NOT NULL,

    amount    NUMBER(30, 3) NOT NULL,

    record\_id NUMBER(10) NOT NULL

);

COMMENT ON COLUMN ltd\_invoice.invoice\_id IS

'the invoice id';

COMMENT ON COLUMN ltd\_invoice."date" IS

'the invoice date';

COMMENT ON COLUMN ltd\_invoice.amount IS

'the amount of this invoice';

CREATE UNIQUE INDEX ltd\_invoice\_\_idx ON

ltd\_invoice (

record\_id

ASC );

ALTER TABLE ltd\_invoice ADD CONSTRAINT ltd\_invoice\_pk PRIMARY KEY ( invoice\_id );

CREATE TABLE ltd\_payment (

payment\_id NUMBER(10) NOT NULL,

payment\_date DATE NOT NULL,

payment\_status VARCHAR2(30) NOT NULL,

payment\_type VARCHAR2(30) NOT NULL,

card\_no VARCHAR2(30) NOT NULL,

invoice\_id NUMBER(10) NOT NULL

);

COMMENT ON COLUMN ltd\_payment.payment\_id IS

'the payment id';

COMMENT ON COLUMN ltd\_payment.payment\_date IS

'the date of this payment';

COMMENT ON COLUMN ltd\_payment.payment\_status IS

'the status of this payment';

COMMENT ON COLUMN ltd\_payment.payment\_type IS

'the payment type ( credit, debit, gift ) ';

COMMENT ON COLUMN ltd\_payment.card\_no IS

'the card number ';

ALTER TABLE ltd\_payment ADD CONSTRAINT ltd\_payment\_pk PRIMARY KEY

( payment\_id );

CREATE TABLE ltd\_rent\_record (

record\_id        NUMBER(10) NOT NULL,

pickup\_office\_id VARCHAR2(30) NOT NULL,

dropoff\_office\_id VARCHAR2(30) NOT NULL,

pickup\_date     DATE NOT NULL,

dropoff\_date    DATE NOT NULL,

start\_meter     NUMBER(30) NOT NULL,

end\_meter       NUMBER(30) NOT NULL,

daliy\_meter\_limit NUMBER(30) NOT NULL,

email           VARCHAR2(30) NOT NULL,

vin             VARCHAR2(30) NOT NULL

);

COMMENT ON COLUMN ltd\_rent\_record.record\_id IS

'the id of the record';

```
COMMENT ON COLUMN ltd_rent_record.pickup_office_id IS  
    'the pick up location';
```

```
COMMENT ON COLUMN ltd_rent_record.dropoff_office_id IS  
    'the drop off location';
```

```
COMMENT ON COLUMN ltd_rent_record.pickup_date IS  
    'the pick up date';
```

```
COMMENT ON COLUMN ltd_rent_record.dropoff_date IS  
    'the drop off date';
```

```
COMMENT ON COLUMN ltd_rent_record.start_meter IS  
    'the start millage';
```

```
COMMENT ON COLUMN ltd_rent_record.end_meter IS  
    'the end millage';
```

```
COMMENT ON COLUMN ltd_rent_record.daliy_meter_limit IS  
    'the daily millage limit( if -1 then it''s unlimited)';
```

```
ALTER TABLE ltd_rent_record ADD CONSTRAINT ltd_rent_record_pk PRIMARY KEY  
( record_id );
```

```
CREATE TABLE ltd_vehicle (  
    vin          VARCHAR2(30) NOT NULL,
```

```
make          VARCHAR2(30) NOT NULL,  
model         VARCHAR2(30) NOT NULL,  
year          NUMBER(10) NOT NULL,  
license_plate_number VARCHAR2(30) NOT NULL,  
status        NUMBER NOT NULL,  
class_name    VARCHAR2(30) NOT NULL,  
office_id     VARCHAR2(30)  
);
```

```
COMMENT ON COLUMN ltd_vehicle.vin IS  
    'the vin number of this vehicle';
```

```
COMMENT ON COLUMN ltd_vehicle.make IS  
    'the make of this vehicle';
```

```
COMMENT ON COLUMN ltd_vehicle.model IS  
    'the model of this vehicle';
```

```
COMMENT ON COLUMN ltd_vehicle.year IS  
    'the year of this vehicle';
```

```
COMMENT ON COLUMN ltd_vehicle.license_plate_number IS  
    'the license plate number';
```

```
COMMENT ON COLUMN ltd_vehicle.status IS  
    'the renting status of this vehicle';
```



```
ALTER TABLE ltd_vehicle ADD CONSTRAINT ltd_vehicle_pk PRIMARY KEY ( vin );
```

```
CREATE TABLE ltd_vehicle_class (  
    class_name    VARCHAR2(30) NOT NULL,  
    rental_rate    NUMBER(10, 2) NOT NULL,  
    over_millage_fee NUMBER(10, 2) NOT NULL  
);
```

```
COMMENT ON COLUMN ltd_vehicle_class.class_name IS  
    'the class name';
```

```
COMMENT ON COLUMN ltd_vehicle_class.rental_rate IS  
    'rental rate';
```

```
COMMENT ON COLUMN ltd_vehicle_class.over_millage_fee IS  
    'the over millage fee';
```

```
ALTER TABLE ltd_vehicle_class ADD CONSTRAINT ltd_vehicle_class_pk PRIMARY KEY  
( class_name );
```

```
CREATE TABLE ltd_wow_office (  
    office_id  VARCHAR2(30) NOT NULL,  
    office_name VARCHAR2(30) NOT NULL,  
    phone      VARCHAR2(30) NOT NULL,  
    street     VARCHAR2(30) NOT NULL,
```

```
city    VARCHAR2(30) NOT NULL,  
state   VARCHAR2(30) NOT NULL,  
zip     NUMBER(30) NOT NULL  
);
```

```
COMMENT ON COLUMN ltd_wow_office.office_id IS  
    'the office id ';
```

```
COMMENT ON COLUMN ltd_wow_office.office_name IS  
    'the name of this office';
```

```
COMMENT ON COLUMN ltd_wow_office.phone IS  
    'the phone number of this office';
```

```
COMMENT ON COLUMN ltd_wow_office.street IS  
    'the street of this office';
```

```
COMMENT ON COLUMN ltd_wow_office.city IS  
    'the city of this office';
```

```
COMMENT ON COLUMN ltd_wow_office.state IS  
    'the state of this office';
```

```
COMMENT ON COLUMN ltd_wow_office.zip IS  
    'the zip code of this office';
```

```
ALTER TABLE ltd_wow_office ADD CONSTRAINT ltd_wow_office_pk PRIMARY KEY  
( office_id );
```

```
ALTER TABLE ltd_corp_cus  
ADD CONSTRAINT corp_cus_corp_coupon_fk FOREIGN KEY ( corp_coupon_id )  
REFERENCES ltd_corp_coupon ( corp_coupon_id );
```

```
ALTER TABLE ltd_corp_cus  
ADD CONSTRAINT corp_cus_customer_fk FOREIGN KEY ( email )  
REFERENCES ltd_customer ( email );
```

```
ALTER TABLE ltd_indi_coupon  
ADD CONSTRAINT indi_coupon_indi_cus_fk FOREIGN KEY ( license_id )  
REFERENCES ltd_indi_cus ( license_id );
```

```
ALTER TABLE ltd_indi_cus  
ADD CONSTRAINT indi_cus_customer_fk FOREIGN KEY ( email )  
REFERENCES ltd_customer ( email );
```

```
ALTER TABLE ltd_invoice  
ADD CONSTRAINT invoice_rent_record_fk FOREIGN KEY ( record_id )  
REFERENCES ltd_rent_record ( record_id );
```

```
ALTER TABLE ltd_payment  
ADD CONSTRAINT payment_invoice_fk FOREIGN KEY ( invoice_id )  
REFERENCES ltd_invoice ( invoice_id );
```

```
ALTER TABLE ltd_rent_record
```

```
ADD CONSTRAINT rent_record_customer_fk FOREIGN KEY ( email )  
REFERENCES ltd_customer ( email );
```

```
ALTER TABLE ltd_rent_record
```

```
ADD CONSTRAINT rent_record_vehicle_fk FOREIGN KEY ( vin )  
REFERENCES ltd_vehicle ( vin );
```

```
ALTER TABLE LTD_rent_record
```

```
ADD CONSTRAINT dropoff_date CHECK (dropoff_date>=pickup_date);
```

```
ALTER TABLE ltd_vehicle
```

```
ADD CONSTRAINT vehicle_vehicle_class_fk FOREIGN KEY ( class_name )  
REFERENCES ltd_vehicle_class ( class_name );
```

```
ALTER TABLE ltd_vehicle
```

```
ADD CONSTRAINT vehicle_wow_office_fk FOREIGN KEY ( office_id )  
REFERENCES ltd_wow_office ( office_id );
```

```
CREATE OR REPLACE TRIGGER arc_fkarc_1_ltd_corp_cus BEFORE
```

```
INSERT OR UPDATE OF email ON ltd_corp_cus
```

```
FOR EACH ROW
```

```

DECLARE

    d VARCHAR2(1);

BEGIN

    SELECT

        a.customer_type

    INTO d

    FROM

        ltd_customer a

    WHERE

        a.email = :new.email;

    IF ( d IS NULL OR d <> 'c' ) THEN

        raise_application_error(-20223, 'FK corp_cus_customer_FK in Table LTD_corp_cus
violates Arc constraint on Table LTD_customer – discriminator column customer_type
doesn't have value "c"');

    END IF;

EXCEPTION

    WHEN no_data_found THEN

        NULL;

    WHEN OTHERS THEN

        RAISE;

END;

/

CREATE OR REPLACE TRIGGER arc_fkarc_1_ltd_indi_cus BEFORE

```

```

INSERT OR UPDATE OF email ON ltd_indi_cus
FOR EACH ROW
DECLARE
    d VARCHAR2(1);
BEGIN
    SELECT
        a.customer_type
    INTO d
    FROM
        ltd_customer a
    WHERE
        a.email = :new.email;

    IF ( d IS NULL OR d <> 'i' ) THEN
        raise_application_error(-20223, 'FK Indi_cus_customer_FK in Table LTD_Indi_cus
violates Arc constraint on Table LTD_customer – discriminator column customer_type
doesn't have value "i"');
    END IF;

EXCEPTION
    WHEN no_data_found THEN
        NULL;
    WHEN OTHERS THEN
        RAISE;
END;
/

```

```
CREATE SEQUENCE LTD_corp_coupon_corp_coupon_id
START WITH 1
    NOCACHE
    ORDER ;
```

```
CREATE OR REPLACE TRIGGER LTD_corp_coupon_corp_coupon_id
BEFORE INSERT ON LTD_corp_coupon
FOR EACH ROW
WHEN (NEW.corp_coupon_id IS NULL)
BEGIN
:new.corp_coupon_id := ltd_corp_coupon_corp_coupon_id.nextval;

end;
/
```

```
CREATE SEQUENCE LTD_invoice_invoice_id_SEQ
START WITH 1
    NOCACHE
    ORDER ;
```

```
CREATE OR REPLACE TRIGGER LTD_invoice_invoice_id_TRG
BEFORE INSERT ON LTD_invoice
FOR EACH ROW
WHEN (NEW.invoice_id IS NULL)
```



```
BEGIN
```

```
:new.invoice_id := ltd_invoice_invoice_id_seq.nextval;
```

```
end;
```

```
/
```

```
CREATE SEQUENCE LTD_payment_payment_id_SEQ
```

```
START WITH 1
```

```
    NOCACHE
```

```
    ORDER ;
```

```
CREATE OR REPLACE TRIGGER LTD_payment_payment_id_TRG
```

```
BEFORE INSERT ON LTD_payment
```

```
FOR EACH ROW
```

```
WHEN (NEW.payment_id IS NULL)
```

```
BEGIN
```

```
:new.payment_id := ltd_payment_payment_id_seq.nextval;
```

```
end;
```

```
/
```

```
CREATE SEQUENCE LTD_rent_record_record_id_SEQ
```

```
START WITH 1
```

```
    NOCACHE
```

```
    ORDER ;
```

```

CREATE OR REPLACE TRIGGER LTD_rent_record_record_id_TRG
BEFORE INSERT ON LTD_rent_record
FOR EACH ROW
WHEN (NEW.record_id IS NULL)
BEGIN
:new.record_id := ltd_rent_record_record_id_seq.nextval;

end;
/

```

-- trigger for invoice

```

CREATE OR REPLACE TRIGGER invoice_trigger
AFTER INSERT ON LTD_rent_record FOR EACH ROW
DECLARE
amount NUMBER;
overamount NUMBER;
extramile NUMBER;
totalmiles NUMBER;
BEGIN

    extramile := :NEW.end_meter - :NEW.start_meter - :NEW.daliy_meter_limit;
    totalmiles := :NEW.end_meter - :NEW.start_meter;

    SELECT SUM(LTD_vehicle_class.rental_rate * totalmiles)

```

```

        INTO amount

        FROM LTD_vehicle_class

        INNER JOIN LTD_vehicle

        ON LTD_vehicle.class_name = LTD_vehicle_class.class_name

        WHERE :NEW.vin = LTD_vehicle.vin;


        SELECT SUM(LTD_vehicle_class.rental_rate * (:NEW.daliy_meter_limit) + (extramile
* LTD_vehicle_class.over_millage_fee))

        INTO overamount

        FROM LTD_vehicle_class

        INNER JOIN LTD_vehicle

        ON LTD_vehicle.class_name = LTD_vehicle_class.class_name

        WHERE :NEW.vin = LTD_vehicle.vin;


        IF extramile > 0 THEN

            INSERT INTO LTD_invoice VALUES(default, :NEW.dropoff_date,
overamount, :NEW.record_id);

        ELSE

            INSERT INTO LTD_invoice VALUES(default, :NEW.dropoff_date,
amount, :NEW.record_id);

        END IF;

    END;

```

/

-- Oracle SQL Developer Data Modeler:

--

-- CREATE TABLE	11
-- CREATE INDEX	1
-- ALTER TABLE	24
-- CREATE VIEW	0
-- ALTER VIEW	0
-- CREATE PACKAGE	0
-- CREATE PACKAGE BODY	0
-- CREATE PROCEDURE	0
-- CREATE FUNCTION	0
-- CREATE TRIGGER	6
-- ALTER TRIGGER	0
-- CREATE COLLECTION TYPE	0
-- CREATE STRUCTURED TYPE	0
-- CREATE STRUCTURED TYPE BODY	0
-- CREATE CLUSTER	0
-- CREATE CONTEXT	0
-- CREATE DATABASE	0
-- CREATE DIMENSION	0
-- CREATE DIRECTORY	0
-- CREATE DISK GROUP	0
-- CREATE ROLE	0

-- CREATE ROLLBACK SEGMENT	0
-- CREATE SEQUENCE	4
-- CREATE MATERIALIZED VIEW	0
-- CREATE MATERIALIZED VIEW LOG	0
-- CREATE SYNONYM	0
-- CREATE TABLESPACE	0
-- CREATE USER	0
--	
-- DROP TABLESPACE	0
-- DROP DATABASE	0
--	
-- REDACTION POLICY	0
--	
-- ORDS DROP SCHEMA	0
-- ORDS ENABLE SCHEMA	0
-- ORDS ENABLE OBJECT	0
--	
-- ERRORS	0
-- WARNINGS	0

## 6. DML Code

### -- LTD\_CUSTOMER

```
insert into ltd_customer (email, phone, street, city, state, zip, customer_type) values  
( 'reikedezotru-1045@gmail.com',6464006103,'1268 Elm Drive','Garden City', 'NY', 11530, 'i');
```

```
insert into ltd_customer (email, phone, street, city, state, zip, customer_type) values  
( 'wajougroulage-5993@yopmail.com',4402423072,'860 Ralph Drive','Lorain', 'OH', 44052,  
'c');
```

```
insert into ltd_customer (email, phone, street, city, state, zip, customer_type) values  
( 'pruppitrubuta-1541@outlook.com',5309181100,'1399 Maxwell Farm Road','Mount Shasta',  
'CA', 96067, 'c');
```

```
insert into ltd_customer (email, phone, street, city, state, zip, customer_type) values  
( 'solujicifrou-1777@yopmail.com',3166950524,'334 Williams Lane','Wichita', 'KS', 67202,  
'c');
```

```
insert into ltd_customer (email, phone, street, city, state, zip, customer_type) values  
( 'trissaddeeddoutoi-6616@163.com',3375991592,'4021 Bridge Avenue','Pine Prairie', 'LA',  
70576, 'i');
```

```
insert into ltd_customer (email, phone, street, city, state, zip, customer_type) values  
( 'naffureussofou-8723@nyu.edu',9175520909,'451 Duncan Avenue','New York', 'NY', 10016,  
'c');
```

```
insert into ltd_customer (email, phone, street, city, state, zip, customer_type) values  
( 'ceissazassuddeu-8182@nyu.edu',9172040218,'4985 Small Street','New York', 'NY', 10038,  
'c');
```

```
insert into ltd_customer (email, phone, street, city, state, zip, customer_type) values  
( 'crossinnaucagre@icloud.com',4349718347,'1677 North Street','Charlottesville', 'VA', 22903,  
'i');
```

insert into ltd\_customer (email, phone, street, city, state, zip, customer\_type) values  
('keigoippeipeitrei@icloud.com',2675252024,'2671 Quincy Street','Philadelphia', 'PA', 19108,  
'i');

insert into ltd\_customer (email, phone, street, city, state, zip, customer\_type) values  
('hoppadilloummu-2988@gmail.com',2483029308,'2655 Bombardier Way','Southfield', 'MI',  
48075, 'i');

insert into ltd\_customer (email, phone, street, city, state, zip, customer\_type) values  
('crebreveyecre-4260@gmail.com',7204913594,'4213 Clearview Drive','Longmont', 'CO',  
80501, 'c');

insert into ltd\_customer (email, phone, street, city, state, zip, customer\_type) values  
('breveyecrece-1984@outlook.com',3343358033,'447 Fleming Street','Luverne', 'AL',  
36049, 'c');

insert into ltd\_customer (email, phone, street, city, state, zip, customer\_type) values  
('yaudajedeikeu-3539@163.com',5135643271,'3454 Rogers Street','Cincinnati', 'OH', 45202,  
'i');

insert into ltd\_customer (email, phone, street, city, state, zip, customer\_type) values  
('trujeigaulattou-7527@gmail.com',8643607413,'1068 Deer Haven Drive','Piedmont', 'SC',  
29673, 'i');

insert into ltd\_customer (email, phone, street, city, state, zip, customer\_type) values  
('podducezesse-2447@icloud.com',7177499568,'2109 Aaron Smith Drive','Waynesboro',  
'PA', 17268, 'i');

insert into ltd\_customer (email, phone, street, city, state, zip, customer\_type) values  
('todducemis-2547@yopmail.com',7039860119,'2352 Broadcast Drive','Washington', 'VA',  
20004, 'c');



```

insert into ltd_customer (email, phone, street, city, state, zip, customer_type) values
('yaumewekoha-8071@yahoo.com',2064907916,'4488 Elliot Avenue','Seattle', 'WA', 98101,
'i');

insert into ltd_customer (email, phone, street, city, state, zip, customer_type) values
('xaumeweloha-1091@yopmail.com',2099875145,'2555 Freed Drive','Stockton', 'CA', 95202,
'c');

insert into ltd_customer (email, phone, street, city, state, zip, customer_type) values
('trebregrayodeu-5596@nyu.edu',9172045718,'381 Farnum Road','New York', 'NY', 10004,
'c');

insert into ltd_customer (email, phone, street, city, state, zip, customer_type) values
('doixauwunuse-5266@qq.com',9172096196,'1905 Bell Street','New York', 'NY', 10038, 'i');

commit;

```

## **-- LTD\_INDI\_CUS**

```

insert into ltd_indi_cus (email, license_id, cus_fn, cus_ln, insurance_name, insurance_no)
values ('reikedezotru-1045@gmail.com','588203864','Alayna','Stracke', 'Nationwide',
'5057777700');

insert into ltd_indi_cus (email, license_id, cus_fn, cus_ln, insurance_name, insurance_no)
values ('trissaddeeddoutoi-6616@163.com','002951620','Linwood','Dare', 'Geico',
'1409868243');

insert into ltd_indi_cus (email, license_id, cus_fn, cus_ln, insurance_name, insurance_no)
values ('crossinnaucagre@icloud.com','908879746','Enola','Kessler', 'Travelers',
'6829484661');

```

```

insert into ltd_indi_cus (email, license_id, cus_fn, cus_ln, insurance_name, insurance_no)
values ('keigoippeipeitrei@icloud.com','25296257','Bridgette','Hand', 'Nationwide',
'5410361553');

insert into ltd_indi_cus (email, license_id, cus_fn, cus_ln, insurance_name, insurance_no)
values ('hoppadilloummu-2988@gmail.com','H588540221069','Sam','Predovic', 'Auto-
Owners Insurance', '2533785131');

insert into ltd_indi_cus (email, license_id, cus_fn, cus_ln, insurance_name, insurance_no)
values ('yaudajedeikeu-3539@163.com','ND158958','Abner','Romaguera', 'Erie Insurance',
'2330015708');

insert into ltd_indi_cus (email, license_id, cus_fn, cus_ln, insurance_name, insurance_no)
values ('trujeigaulattou-7527@gmail.com','058600537','Reece','Upton', 'Travelers',
'3813212070');

insert into ltd_indi_cus (email, license_id, cus_fn, cus_ln, insurance_name, insurance_no)
values ('podducezesse-2447@icloud.com','26806489','Allison','Franecki', 'State Farm',
'4267990931');

insert into ltd_indi_cus (email, license_id, cus_fn, cus_ln, insurance_name, insurance_no)
values ('yaumewekoha-8071@yahoo.com','FDQWERL25495','Elna','McGlynn', 'Erie
Insurance', '2431337716');

insert into ltd_indi_cus (email, license_id, cus_fn, cus_ln, insurance_name, insurance_no)
values ('doixauwunuse-5266@qq.com','101016329','Einar','Ferry', 'Auto-Owners Insurance',
'4642951218');

commit;

```

**-- LTD\_INDI\_COUPON**

```

insert into ltd_indi_coupon (indi_coupon_id, indi_discount_rate, start_date, end_date,
license_id) values (6264083937,0.8,to_date('01-AUG-20','DD-MON-RR'),to_date('01-SEP-
20','DD-MON-RR'), '588203864');

insert into ltd_indi_coupon (indi_coupon_id, indi_discount_rate, start_date, end_date,
license_id) values (4200713646,0.9,to_date('01-OCT-20','DD-MON-RR'),to_date('01-DEC-
20','DD-MON-RR'), '588203864');

insert into ltd_indi_coupon (indi_coupon_id, indi_discount_rate, start_date, end_date,
license_id) values (7193258878,0.9,to_date('20-JAN-20','DD-MON-RR'),to_date('20-FEB-
20','DD-MON-RR'), '002951620');

insert into ltd_indi_coupon (indi_coupon_id, indi_discount_rate, start_date, end_date,
license_id) values (9735879478,0.7,to_date('20-MAR-20','DD-MON-RR'),to_date('20-
APR-20','DD-MON-RR'), '002951620');

insert into ltd_indi_coupon (indi_coupon_id, indi_discount_rate, start_date, end_date,
license_id) values (4198309397,0.9,to_date('01-OCT-20','DD-MON-RR'),to_date('01-NOV-
20','DD-MON-RR'), '908879746');

insert into ltd_indi_coupon (indi_coupon_id, indi_discount_rate, start_date, end_date,
license_id) values (8940854222,0.6,to_date('01-JAN-21','DD-MON-RR'),to_date('01-MAR-
21','DD-MON-RR'), '25296257');

insert into ltd_indi_coupon (indi_coupon_id, indi_discount_rate, start_date, end_date,
license_id) values (8918830061,0.8,to_date('01-JUN-21','DD-MON-RR'),to_date('01-JUL-
21','DD-MON-RR'), 'H588540221069');

insert into ltd_indi_coupon (indi_coupon_id, indi_discount_rate, start_date, end_date,
license_id) values (4299540433,0.8,to_date('01-MAY-21','DD-MON-RR'),to_date('01-JUN-
21','DD-MON-RR'), 'ND158958');

```

```

insert into ltd_indi_coupon (indi_coupon_id, indi_discount_rate, start_date, end_date,
license_id) values (4422823870,0.9,to_date('01-APR-21','DD-MON-RR'),to_date('01-MAY-
21','DD-MON-RR'), '058600537');

insert into ltd_indi_coupon (indi_coupon_id, indi_discount_rate, start_date, end_date,
license_id) values (5294034487,0.75,to_date('01-MAY-21','DD-MON-RR'),to_date('01-
AUG-21','DD-MON-RR'), '26806489');

insert into ltd_indi_coupon (indi_coupon_id, indi_discount_rate, start_date, end_date,
license_id) values (6428346312,0.85,to_date('20-JAN-21','DD-MON-RR'),to_date('20-
MAY-21','DD-MON-RR'), 'FDQWERL25495');

insert into ltd_indi_coupon (indi_coupon_id, indi_discount_rate, start_date, end_date,
license_id) values (2108149161,0.9,to_date('01-JAN-22','DD-MON-RR'),to_date('21-JAN-
22','DD-MON-RR'), '101016329');

insert into ltd_indi_coupon (indi_coupon_id, indi_discount_rate, start_date, end_date,
license_id) values (9927676813,0.6,to_date('01-DEC-21','DD-MON-RR'),to_date('21-DEC-
21','DD-MON-RR'), '101016329');

commit;

```

## **-- LTD\_CORP\_COUPON**

```

insert into ltd_corp_coupon (c_discount_rate, corp_coupon_id) values (0.6,7165052063);
insert into ltd_corp_coupon (c_discount_rate, corp_coupon_id) values (0.8,5282244975);
insert into ltd_corp_coupon (c_discount_rate, corp_coupon_id) values (0.9,1727843195);
insert into ltd_corp_coupon (c_discount_rate, corp_coupon_id) values (0.85,6315255780);
insert into ltd_corp_coupon (c_discount_rate, corp_coupon_id) values (0.8,2828349816);
insert into ltd_corp_coupon (c_discount_rate, corp_coupon_id) values (0.7,952265369);
insert into ltd_corp_coupon (c_discount_rate, corp_coupon_id) values (0.7,8560060722);

```

```

insert into ltd_corp_coupon (c_discount_rate, corp_coupon_id) values (0.8,2925966320);
insert into ltd_corp_coupon (c_discount_rate, corp_coupon_id) values (0.9,2868170271);
insert into ltd_corp_coupon (c_discount_rate, corp_coupon_id) values (0.7,8818590786);
commit;

```

## **-- LTD\_CORP\_CUS**

```

insert into ltd_corp_cus (email, corp_no, emp_id, corp_name, corp_coupon_id) values
('wajougroulage-5993@yopmail.com','4','CH84978299','CHICO Hairdressing
Inc.',1727843195);
insert into ltd_corp_cus (email, corp_no, emp_id, corp_name, corp_coupon_id) values
('pruppitrubuta-1541@outlook.com','2','MS58616803','Microsoft Corporation',5282244975);
insert into ltd_corp_cus (email, corp_no, emp_id, corp_name, corp_coupon_id) values
('solujicifrou-1777@yopmail.com','5','TG85184809','Techni-Glass Ltd.',2925966320);
insert into ltd_corp_cus (email, corp_no, emp_id, corp_name, corp_coupon_id) values
('naffureussofou-8723@nyu.edu','1','N63261165','New York University',7165052063);
insert into ltd_corp_cus (email, corp_no, emp_id, corp_name, corp_coupon_id) values
('ceissazassuddeu-8182@nyu.edu','1','N77414822','New York University',7165052063);
insert into ltd_corp_cus (email, corp_no, emp_id, corp_name, corp_coupon_id) values
('crebreveyecre-4260@gmail.com','3','G80970673','Alphabet Inc.',6315255780);
insert into ltd_corp_cus (email, corp_no, emp_id, corp_name, corp_coupon_id) values
('breveyecrece-1984@outlook.com','2','MS43062333','Microsoft Corporation',5282244975);
insert into ltd_corp_cus (email, corp_no, emp_id, corp_name, corp_coupon_id) values
('todducemis-2547@yopmail.com','6','A24445062','Aceable, Inc.',952265369);
insert into ltd_corp_cus (email, corp_no, emp_id, corp_name, corp_coupon_id) values
('xaumeweloha-1091@yopmail.com','7','I02810430','lbotta, Inc.',8818590786);

```

```
insert into ltd_corp_cus (email, corp_no, emp_id, corp_name, corp_coupon_id) values
('trebregrayodeu-5596@nyu.edu','1','N36213671','New York University',7165052063);
commit;
```

## **-- LTD\_VEHICLE\_CLASS**

```
insert into LTD_vehicle_class
    (class_name, rental_rate, over_millage_fee)
values
    ('small car', 50, 1);
```

```
insert into LTD_vehicle_class
    (class_name, rental_rate, over_millage_fee)
values
    ('mid size car', 60, 2);
```

```
insert into LTD_vehicle_class
    (class_name, rental_rate, over_millage_fee)
values
    ('large car', 70, 3);
```

```
insert into LTD_vehicle_class
    (class_name, rental_rate, over_millage_fee)
values
    ('truck', 75, 4);
```

```
insert into LTD_vehicle_class
```

```
(class_name, rental_rate, over_millage_fee)
values
('SUV', 80, 5);
```

```
insert into LTD_vehicle_class
(class_name, rental_rate, over_millage_fee)
values
('Premium SUV', 85, 6);
```

```
insert into LTD_vehicle_class
(class_name, rental_rate, over_millage_fee)
values
('Mini Van', 90, 7);
```

```
insert into LTD_vehicle_class
(class_name, rental_rate, over_millage_fee)
values
('convertable', 95, 8);
```

```
insert into LTD_vehicle_class
(class_name, rental_rate, over_millage_fee)
values
('race car', 100, 9);
```

```
insert into LTD_vehicle_class
(class_name, rental_rate, over_millage_fee)
```

values

('electricity car', 105, 10);

commit;

## **-- LTD\_WOW\_OFFICE**

insert into LTD\_wow\_office (office\_id, office\_name, phone, street, city, state, zip) values (1, 'A office', 8156222725, 'lombardy street', 'Landilne', 'IL', 07281);

insert into LTD\_wow\_office (office\_id, office\_name, phone, street, city, state, zip) values (2, 'B office', 3233438342, 'sunset avenue', 'caliform', 'CA', 17782);

insert into LTD\_wow\_office (office\_id, office\_name, phone, street, city, state, zip) values (3, 'C office', 7347837284, 'hasker streer', 'centre city', 'MI', 992871);

insert into LTD\_wow\_office (office\_id, office\_name, phone, street, city, state, zip) values (4, 'D office', 8172624391, 'axe first', 'sandy county', 'TX', 274627);

insert into LTD\_wow\_office (office\_id, office\_name, phone, street, city, state, zip) values (5, 'E office', 9193961849, 'st kings', 'matilda city', 'NC', 872733);

insert into LTD\_wow\_office (office\_id, office\_name, phone, street, city, state, zip) values (6, 'F office', 3372703067, 'st david', 'leon village', 'LA', 165887);

insert into LTD\_wow\_office (office\_id, office\_name, phone, street, city, state, zip) values (7, 'G office', 5079265194, 'st mary', 'jasmin city', 'MN', 766437);

insert into LTD\_wow\_office (office\_id, office\_name, phone, street, city, state, zip) values (8, 'H office', 3346451904, 'greate jhson', 'lagard', 'AL', 08892);

insert into LTD\_wow\_office (office\_id, office\_name, phone, street, city, state, zip) values (9, 'I office', 9704656295, 'loiuse street', 'swiiss county', 'CO', 727661);



```
insert into LTD_wow_office (office_id, office_name, phone, street, city, state, zip) values
(10, 'J office', 3153086474, 'pavonia avenue', 'jesus city', 'NJ', 07306);

commit;
```

## **-- LTD\_VEHICLE**

```
insert into LTD_vehicle (vin, make, model, year, license_plate_number, status, class_name,
office_id) values ('1N4DL01D2XC212827'
, 'Nissan', 'Maxima', 2010, 'SC39724', 1, 'mid size car', 1);
```

```
insert into LTD_vehicle (vin, make, model, year, license_plate_number, status, class_name,
office_id) values ('3VWPP7AJXDM655051'
, 'Nissan', 'Maxima', 2011, 'DV38576', 1, 'mid size car', 1);
```

```
insert into LTD_vehicle (vin, make, model, year, license_plate_number, status, class_name,
office_id) values ('1FTFW1ET9DFC24713'
, 'Audi', 'RS', 2011, '9682TX', 1, 'race car', 2);
```

```
insert into LTD_vehicle (vin, make, model, year, license_plate_number, status, class_name,
office_id) values ('1D7HU18206S690287'
, 'Audi', 'A4', 2010, 'XSZ904', 1, 'small car', 3);
```

```
insert into LTD_vehicle (vin, make, model, year, license_plate_number, status, class_name,
office_id) values ('1FTYR11E06PA11413'
, 'Toyota', 'Camery', 2007, '6L83236', 1, 'mid size car', 4);
```

```
insert into LTD_vehicle (vin, make, model, year, license_plate_number, status, class_name,
office_id) values ('19UUA5648XA027300'
, 'BMW', 'X5', 2015, '8CEW092', 1, 'SUV', 5);
```

```
insert into LTD_vehicle (vin, make, model, year, license_plate_number, status, class_name,
office_id) values ('1J4GS48K86C205394'
, 'BMW', 'M1', 2010, 'BGS536', 1, 'convertable', 6);
```

```
insert into LTD_vehicle (vin, make, model, year, license_plate_number, status, class_name,
office_id) values ('3GNAL2EK5DS687791'
, 'Ford', 'Mustang', 2014, 'GML5411', 1, 'convertable', 7);
```

```
insert into LTD_vehicle (vin, make, model, year, license_plate_number, status, class_name,
office_id) values ('1FTCR10A0TUA90846'
, 'Ford', 'Mustang', 2018, 'CLD6169', 1, 'convertable', 8);
```

```
insert into LTD_vehicle (vin, make, model, year, license_plate_number, status, class_name,
office_id) values ('JTEEP21A460119291'
, 'Lamborghini', 'AVENTADOR', 2019, '6BPC403', 1, 'race car', 9);
```

```
insert into LTD_vehicle (vin, make, model, year, license_plate_number, status, class_name,
office_id) values ('KNAGM4A79B5148561'
, 'Lamborghini', 'URUS', 2019, '412SKB', 1, 'SUV', 9);
```

```
insert into LTD_vehicle (vin, make, model, year, license_plate_number, status, class_name,
office_id) values ('JM1BK144671795114'
```

```
, 'Aston Martin', 'DB11', 2020, '7SKX652', 1, 'race car', 9);
```

```
insert into LTD_vehicle (vin, make, model, year, license_plate_number, status, class_name,  
office_id) values ('3FA6P0LUXER272699'
```

```
, 'Aston Martin', 'Valkyrie', 2022, 'BB9749', 1, 'race car', 1);
```

```
commit;
```

## **-- LTD\_RENT\_RECORD**

```
insert into LTD_rent_record (record_id, pickup_office_id, dropoff_office_id, pickup_date,  
dropoff_date, start_meter, end_meter, daliy_meter_limit, email, vin)  
values
```

```
(default, 1, 1, to_date('17-JUN-19','DD-MON-RR'), to_date('18-JUN-19','DD-MON-RR'),  
12000, 12300, 500, 'reikedezotru-1045@gmail.com', '1N4DL01D2XC212827');
```

```
insert into LTD_rent_record (record_id, pickup_office_id, dropoff_office_id, pickup_date,  
dropoff_date, start_meter, end_meter, daliy_meter_limit, email, vin)  
values
```

```
(default, 1, 1, to_date('20-MAY-20','DD-MON-RR'), to_date('22-MAY-20','DD-MON-RR'),  
12000, 12300, 500, 'wajougroulage-5993@yopmail.com', '3VWPP7AJXDM655051');
```

```
insert into LTD_rent_record (record_id, pickup_office_id, dropoff_office_id, pickup_date,  
dropoff_date, start_meter, end_meter, daliy_meter_limit, email, vin)  
values
```

```
(default, 2, 2, to_date('10-OCT-20','DD-MON-RR'), to_date('11-OCT-20','DD-MON-RR'),  
10000, 12300, -1, 'pruppitrubuta-1541@outlook.com', '1FTFW1ET9DFC24713');
```

```
insert into LTD_rent_record (record_id, pickup_office_id, dropoff_office_id, pickup_date,
dropoff_date, start_meter, end_meter, daliy_meter_limit, email, vin)
```

```
values
```

```
(default, 3, 3, to_date('08-JUN-21','DD-MON-RR'), to_date('09-JUN-21','DD-MON-RR'),
15000, 16089, 500, 'solujicifrou-1777@yopmail.com', '1D7HU18206S690287');
```

```
insert into LTD_rent_record (record_id, pickup_office_id, dropoff_office_id, pickup_date,
dropoff_date, start_meter, end_meter, daliy_meter_limit, email, vin)
```

```
values
```

```
(default, 4, 4, to_date('12-JUN-21','DD-MON-RR'), to_date('20-JUN-21','DD-MON-RR'),
10000, 10700, -1, 'trissaddeddoutoi-6616@163.com', '1FTYR11E06PA11413');
```

```
insert into LTD_rent_record (record_id, pickup_office_id, dropoff_office_id, pickup_date,
dropoff_date, start_meter, end_meter, daliy_meter_limit, email, vin)
```

```
values
```

```
(default, 5, 5, to_date('20-JUN-21','DD-MON-RR'), to_date('25-JUN-21','DD-MON-RR'),
9000, 10700, -1, 'naffureussofou-8723@nyu.edu', '19UUA5648XA027300');
```

```
insert into LTD_rent_record (record_id, pickup_office_id, dropoff_office_id, pickup_date,
dropoff_date, start_meter, end_meter, daliy_meter_limit, email, vin)
```

```
values
```

```
(default, 6, 6, to_date('25-JUN-21','DD-MON-RR'), to_date('27-JUN-21','DD-MON-RR'),
8000, 8500, 1000, 'ceissazassuddeu-8182@nyu.edu', '1J4GS48K86C205394');
```

```
insert into LTD_rent_record (record_id, pickup_office_id, dropoff_office_id, pickup_date,
dropoff_date, start_meter, end_meter, daliy_meter_limit, email, vin)
```

values

```
(default, 7, 7, to_date('01-MAY-21','DD-MON-RR'), to_date('05-MAY-21','DD-MON-RR'),  
8000, 8500, 1000, 'crossinnaucagre@icloud.com', '3GNAL2EK5DS687791');
```

```
insert into LTD_rent_record (record_id, pickup_office_id, dropoff_office_id, pickup_date,  
dropoff_date, start_meter, end_meter, daliy_meter_limit, email, vin)
```

values

```
(default, 8, 8, to_date('10-JAN-22','DD-MON-RR'), to_date('11-JAN-22','DD-MON-RR'),  
8000, 8500, 1000, 'keigoippeipeitrei@icloud.com', '1FTCR10A0TUA90846');
```

```
insert into LTD_rent_record (record_id, pickup_office_id, dropoff_office_id, pickup_date,  
dropoff_date, start_meter, end_meter, daliy_meter_limit, email, vin)
```

values

```
(default, 9, 9, to_date('20-FEB-22','DD-MON-RR'), to_date('22-FEB-22','DD-MON-RR'),  
8000, 8500, 1000, 'hoppadilloummu-2988@gmail.com', 'JTEEP21A460119291');
```

commit;

## -- LTD\_PAYMENT

```
insert into LTD_payment (payment_id, payment_date, payment_status, payment_type,  
card_no, invoice_id)
```

values

```
(default, to_date('18-JUN-19','DD-MON-RR'), 'approved', 'credit card',  
'4539727885860973', 1);
```

```
insert into LTD_payment (payment_id, payment_date, payment_status, payment_type,  
card_no, invoice_id)  
values  
(default, to_date('22-MAY-20','DD-MON-RR'), 'approved', 'debit card',  
'4929622139534755', 2);
```

```
insert into LTD_payment (payment_id, payment_date, payment_status, payment_type,  
card_no, invoice_id)  
values  
(default, to_date('11-OCT-20','DD-MON-RR'), 'approved', 'debit card',  
'4716035186596478613', 3);
```

```
insert into LTD_payment (payment_id, payment_date, payment_status, payment_type,  
card_no, invoice_id)  
values  
(default, to_date('09-JUN-21','DD-MON-RR'), 'approved', 'credit card',  
'2221007539255434', 4);
```

```
insert into LTD_payment (payment_id, payment_date, payment_status, payment_type,  
card_no, invoice_id)  
values  
(default, to_date('20-JUN-21','DD-MON-RR'), 'approved', 'bebit card', '5221766410559791',  
5);
```

```
insert into LTD_payment (payment_id, payment_date, payment_status, payment_type,  
card_no, invoice_id)
```

values

(default, to\_date('25-JUN-21','DD-MON-RR'), 'approved', 'credit card',  
'5512435899910044', 6);

insert into LTD\_payment (payment\_id, payment\_date, payment\_status, payment\_type,  
card\_no, invoice\_id)

values

(default, to\_date('27-JUN-21','DD-MON-RR'), 'approved', 'credit card', '373903761866783',  
7);

insert into LTD\_payment (payment\_id, payment\_date, payment\_status, payment\_type,  
card\_no, invoice\_id)

values

(default, to\_date('05-MAY-21','DD-MON-RR'), 'approved', 'debit card', '348420970316866',  
8);

insert into LTD\_payment (payment\_id, payment\_date, payment\_status, payment\_type,  
card\_no, invoice\_id)

values

(default, to\_date('11-JAN-22','DD-MON-RR'), 'approved', 'credit card', '372434040236961',  
9);

insert into LTD\_payment (payment\_id, payment\_date, payment\_status, payment\_type,  
card\_no, invoice\_id)

values

```
(default, to_date('22-FEB-22','DD-MON-RR'), 'approved', 'credit card',  
'6011961356280666', 10);
```



## 7. Trigger Code

**-- trigger for invoice**

```
CREATE OR REPLACE TRIGGER invoice_trigger
AFTER INSERT ON LTD_rent_record FOR EACH ROW
DECLARE
amount NUMBER;
overamount NUMBER;
extramile NUMBER;
totalmiles NUMBER;
BEGIN

    extramile := :NEW.end_meter - :NEW.start_meter - :NEW.daliy_meter_limit;
    totalmiles := :NEW.end_meter - :NEW.start_meter;

    SELECT SUM(LTD_vehicle_class.rental_rate * totalmiles)
    INTO amount
    FROM LTD_vehicle_class
    INNER JOIN LTD_vehicle
    ON LTD_vehicle.class_name = LTD_vehicle_class.class_name
    WHERE :NEW.vin = LTD_vehicle.vin;
```

```

        SELECT SUM(LTD_vehicle_class.rental_rate * (:NEW.daliy_meter_limit) + (extramile
* LTD_vehicle_class.over_millage_fee))

        INTO overamount

        FROM LTD_vehicle_class

        INNER JOIN LTD_vehicle

        ON LTD_vehicle.class_name = LTD_vehicle_class.class_name

        WHERE :NEW.vin = LTD_vehicle.vin;


        IF extramile > 0 THEN

            INSERT INTO LTD_invoice VALUES(default, :NEW.dropoff_date,
overamount, :NEW.record_id);

        ELSE

            INSERT INTO LTD_invoice VALUES(default, :NEW.dropoff_date,
amount, :NEW.record_id);

        END IF;

    END;

/

```

## 8. Queries Results

### 1. REM: List of Tables

```
select table_name
from user_tables
where table_name like 'LTD%';
```

TABLE_NAME
LTD_CORP_COUPON
LTD_CORP_CUS
LTD_CUSTOMER
LTD_INDI_COUPON
LTD_INDI_CUS
LTD_INVOICE
LTD_PAYMENT
LTD_RENT_RECORD
LTD_VEHICLE
LTD_VEHICLE_CLASS
LTD_WOW_OFFICE

### 2. REM: List of Table Columns

```
select
table_name, column_name, column_id
from user_tab_columns
where table_name like 'LTD%'
order by table_name, column_id;
```

TABLE_NAME	COLUMN_NAME	COLUMN_ID
LTD_CORP_COUPON	C_DISCOUNT_RATE	1
LTD_CORP_COUPON	CORP_COUPON_ID	2
LTD_CORP_CUS	EMAIL	1
LTD_CORP_CUS	CORP_NO	2
LTD_CORP_CUS	EMP_ID	3
LTD_CORP_CUS	CORP_NAME	4
LTD_CORP_CUS	CORP_COUPON_ID	5
LTD_CUSTOMER	EMAIL	1
LTD_CUSTOMER	PHONE	2
LTD_CUSTOMER	STREET	3
LTD_CUSTOMER	CITY	4
LTD_CUSTOMER	STATE	5
LTD_CUSTOMER	ZIP	6
LTD_CUSTOMER	CUSTOMER_TYPE	7
LTD_INDI_COUPON	INDI_COUPON_ID	1
LTD_INDI_COUPON	INDI_DISCOUNT_RATE	2
LTD_INDI_COUPON	START_DATE	3
LTD_INDI_COUPON	END_DATE	4
LTD_INDI_COUPON	LICENSE_ID	5
LTD_INDI_CUS	EMAIL	1
LTD_INDI_CUS	LICENSE_ID	2
LTD_INDI_CUS	CUS_FN	3
LTD_INDI_CUS	CUS_LN	4
LTD_INDI_CUS	INSURANCE_NAME	5
LTD_INDI_CUS	INSURANCE_NO	6
LTD_INVOICE	INVOICE_ID	1
LTD_INVOICE	date	2
LTD_INVOICE	AMOUNT	3
LTD_INVOICE	RECORD_ID	4
LTD_PAYMENT	PAYMENT_ID	1
LTD_PAYMENT	PAYMENT_DATE	2
LTD_PAYMENT	PAYMENT_STATUS	3
LTD_PAYMENT	PAYMENT_TYPE	4
LTD_PAYMENT	CARD_NO	5
LTD_PAYMENT	INVOICE_ID	6
LTD_RENT_RECORD	RECORD_ID	1
LTD_RENT_RECORD	PICKUP_OFFICE_ID	2
LTD_RENT_RECORD	DROPOFF_OFFICE_ID	3
LTD_RENT_RECORD	PICKUP_DATE	4
LTD_RENT_RECORD	DROPOFF_DATE	5
LTD_RENT_RECORD	START_METER	6
LTD_RENT_RECORD	END_METER	7
LTD_RENT_RECORD	DAILY_METER_LIMIT	8
LTD_RENT_RECORD	EMAIL	9
LTD_RENT_RECORD	VIN	10
LTD_VEHICLE	VIN	1
LTD_VEHICLE	MAKE	2
LTD_VEHICLE	MODEL	3
LTD_VEHICLE	YEAR	4
LTD_VEHICLE	LICENSE_PLATE_NUMBER	5

### 3. REM: List of Table Column Constraints

Select

table\_name,constraint\_name,constraint\_type,search\_condition,index\_name,r\_constraint  
\_name,delete\_rule

from user\_constraints

where table\_name like LTD%' order by table\_name;

TABLE_NAME	CONSTRAINT_NAME	CONSTRAINT_TYPE	SEARCH_CONDITION	INDEX_NAME	R_CONSTRAINT_NAME	DELETE_RULE
LTD_CORP_COUPON	LTD_CORP_COUPON_PK	P	-	LTD_CORP_COUPON_PK	-	-
LTD_CORP_COUPON	SYS_C0082858688	C	"C_DISCOUNT_RATE" IS NOT NULL	-	-	-
LTD_CORP_COUPON	SYS_C0082858689	C	"CORP_COUPON_ID" IS NOT NULL	-	-	-
LTD_CORP_CUS	SYS_C0082858695	C	"CORP_COUPON_ID" IS NOT NULL	-	-	-
LTD_CORP_CUS	LTD_CORP_CUS_PK	P	-	LTD_CORP_CUS_PK	-	-
LTD_CORP_CUS	SYS_C0082858692	C	"CORP_NO" IS NOT NULL	-	-	-
LTD_CORP_CUS	SYS_C0082858693	C	"EMP_ID" IS NOT NULL	-	-	-
LTD_CORP_CUS	SYS_C0082858694	C	"CORP_NAME" IS NOT NULL	-	-	-
LTD_CORP_CUS	CORP_CUS_CUSTOMER_FK	R	-	-	LTD_CUSTOMER_PK	NO ACTION
LTD_CORP_CUS	LTD_CORP_CUS_PKV1	U	-	LTD_CORP_CUS_PKV1	-	-
LTD_CORP_CUS	SYS_C0082858691	C	"EMAIL" IS NOT NULL	-	-	-
LTD_CORP_CUS	CORP_CUS_CORP_COUPON_FK	R	-	-	LTD_CORP_COUPON_PK	NO ACTION
LTD_CUSTOMER	CH_INH_LTD_CUSTOMER	C	customer_type IN ( 'c', 'i' )	-	-	-
LTD_CUSTOMER	SYS_C0082858704	C	"CUSTOMER_TYPE" IS NOT NULL	-	-	-
LTD_CUSTOMER	SYS_C0082858703	C	"ZIP" IS NOT NULL	-	-	-
LTD_CUSTOMER	SYS_C0082858702	C	"STATE" IS NOT NULL	-	-	-
LTD_CUSTOMER	SYS_C0082858701	C	"CITY" IS NOT NULL	-	-	-
LTD_CUSTOMER	SYS_C0082858700	C	"STREET" IS NOT NULL	-	-	-
LTD_CUSTOMER	SYS_C0082858699	C	"PHONE" IS NOT NULL	-	-	-
LTD_CUSTOMER	SYS_C0082858698	C	"EMAIL" IS NOT NULL	-	-	-
LTD_CUSTOMER	LTD_CUSTOMER_PK	P	-	LTD_CUSTOMER_PK	-	-
LTD_INDI_COUPON	SYS_C0082858710	C	"END_DATE" IS NOT NULL	-	-	-
LTD_INDI_COUPON	SYS_C0082858709	C	"START_DATE" IS NOT NULL	-	-	-
LTD_INDI_COUPON	SYS_C0082858708	C	"INDI_DISCOUNT_RATE" IS NOT NULL	-	-	-
LTD_INDI_COUPON	INDI_COUPON_INDI_CUS_FK	R	-	-	LTD_INDI_CUS_PKV1	NO ACTION
LTD_INDI_COUPON	SYS_C0082858707	C	"INDI_COUPON_ID" IS NOT NULL	-	-	-
LTD_INDI_COUPON	LTD_INDI_COUPON_PK	P	-	LTD_INDI_COUPON_PK	-	-
LTD_INDI_CUS	SYS_C0082858715	C	"CUS_LN" IS NOT NULL	-	-	-
LTD_INDI_CUS	SYS_C0082858713	C	"LICENSE_ID" IS NOT NULL	-	-	-
LTD_INDI_CUS	SYS_C0082858717	C	"INSURANCE_NO" IS NOT NULL	-	-	-
LTD_INDI_CUS	SYS_C0082858716	C	"INSURANCE_NAME" IS NOT NULL	-	-	-
LTD_INDI_CUS	SYS_C0082858714	C	"CUS_FN" IS NOT NULL	-	-	-
LTD_INDI_CUS	LTD_INDI_CUS_PK	P	-	LTD_INDI_CUS_PK	-	-
LTD_INDI_CUS	LTD_INDI_CUS_PKV1	U	-	LTD_INDI_CUS_PKV1	-	-
LTD_INDI_CUS	INDI_CUS_CUSTOMER_FK	R	-	-	LTD_CUSTOMER_PK	NO ACTION
LTD_INDI_CUS	SYS_C0082858712	C	"EMAIL" IS NOT NULL	-	-	-
LTD_INVOICE	LTD_INVOICE_PK	P	-	LTD_INVOICE_PK	-	-
LTD_INVOICE	INVOICE_RENT_RECORD_FK	R	-	-	LTD_RENT_RECORD_PK	NO ACTION
LTD_INVOICE	SYS_C0082858725	C	"RECORD_ID" IS NOT NULL	-	-	-
LTD_INVOICE	SYS_C0082858724	C	"AMOUNT" IS NOT NULL	-	-	-
LTD_INVOICE	SYS_C0082858723	C	"date" IS NOT NULL	-	-	-
LTD_INVOICE	SYS_C0082858722	C	"INVOICE_ID" IS NOT NULL	-	-	-
LTD_PAYMENT	PAYMENT_INVOICE_FK	R	-	-	LTD_INVOICE_PK	NO ACTION
LTD_PAYMENT	SYS_C0082858727	C	"PAYMENT_ID" IS NOT NULL	-	-	-
LTD_PAYMENT	SYS_C0082858728	C	"PAYMENT_DATE" IS NOT NULL	-	-	-
LTD_PAYMENT	SYS_C0082858729	C	"PAYMENT_STATUS" IS NOT NULL	-	-	-
LTD_PAYMENT	SYS_C0082858730	C	"PAYMENT_TYPE" IS NOT NULL	-	-	-
LTD_PAYMENT	SYS_C0082858731	C	"CARD_NO" IS NOT NULL	-	-	-
LTD_PAYMENT	SYS_C0082858732	C	"INVOICE_ID" IS NOT NULL	-	-	-
LTD_PAYMENT	LTD_PAYMENT_PK	P	-	LTD_PAYMENT_PK	-	-

#### **4. REM: List of Table Column Comments**

```
select  
table_name,column_name,comments  
from user_col_comments  
where table_name like 'LTD%'
```

TABLE_NAME	COLUMN_NAME	COMMENTS
LTD_CORP_COUPON	C_DISCOUNT_RATE	the rate of the discount
LTD_CORP_COUPON	CORP_COUPON_ID	-
LTD_CORP_CUS	EMP_ID	the employee id of the customer
LTD_CORP_CUS	CORP_NAME	the name of the corp
LTD_CORP_CUS	CORP_NO	the corp registration number
LTD_CORP_CUS	EMAIL	email of the customer
LTD_CORP_CUS	CORP_COUPON_ID	-
LTD_CUSTOMER	EMAIL	email of the customer
LTD_CUSTOMER	PHONE	phone number of the customer
LTD_CUSTOMER	STREET	the street name of the address
LTD_CUSTOMER	CITY	the city of the address
LTD_CUSTOMER	STATE	the state of the address
LTD_CUSTOMER	ZIP	the zip code of the address
LTD_CUSTOMER	CUSTOMER_TYPE	the type of the customer
LTD_INDI_COUPON	INDI_COUPON_ID	the coupon id
LTD_INDI_COUPON	LICENSE_ID	-
LTD_INDI_COUPON	END_DATE	the end date of the coupon
LTD_INDI_COUPON	START_DATE	the start date
LTD_INDI_COUPON	INDI_DISCOUNT_RATE	the rate of the discount
LTD_INDI_CUS	EMAIL	email of the customer
LTD_INDI_CUS	LICENSE_ID	the driver license number
LTD_INDI_CUS	CUS_FN	the first name of the customer
LTD_INDI_CUS	CUS_LN	the last name of the customer
LTD_INDI_CUS	INSURANCE_NAME	the insurance company name
LTD_INDI_CUS	INSURANCE_NO	the insurance number
LTD_INVOICE	date	the invoice date
LTD_INVOICE	INVOICE_ID	the invoice id
LTD_INVOICE	AMOUNT	the amount of this invoice
LTD_INVOICE	RECORD_ID	-
LTD_PAYMENT	PAYMENT_DATE	the date of this payment
LTD_PAYMENT	PAYMENT_ID	the payment id
LTD_PAYMENT	PAYMENT_STATUS	the status of this payment
LTD_PAYMENT	INVOICE_ID	-
LTD_PAYMENT	CARD_NO	the card number
LTD_PAYMENT	PAYMENT_TYPE	the payment type ( credit, debit, gift )
LTD_RENT_RECORD	DROPOFF_OFFICE_ID	the drop off location
LTD_RENT_RECORD	PICKUP_OFFICE_ID	the pick up location
LTD_RENT_RECORD	RECORD_ID	the id of the record
LTD_RENT_RECORD	PICKUP_DATE	the pick up date
LTD_RENT_RECORD	VIN	-
LTD_RENT_RECORD	START_METER	the start millage
LTD_RENT_RECORD	END_METER	the end millage
LTD_RENT_RECORD	DAILY_METER_LIMIT	the daily millage limit( if -1 then it's unlimited)
LTD_RENT_RECORD	EMAIL	-
LTD_RENT_RECORD	DROPOFF_DATE	the drop off date
LTD_VEHICLE	MODEL	the model of this vehicle
LTD_VEHICLE	MAKE	the make of this vehicle
LTD_VEHICLE	VIN	the vin number of this vehicle
LTD_VEHICLE	YEAR	the year of this vehicle
LTD_VEHICLE	OFFICE_ID	-

order by table\_name;



