Unit 08 Problem Set Submission Form

Overview

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Instructions

Put your name and SU email at the top. Answer these questions all from the lab. When asked to include screenshots, please follow the screen shot guidelines from the first lab.

Remember as you complete the problem sets it is not only about getting it right / correct. We will discuss the answers in class so it's important to articulate anything you would like to contribute to the discussion in your answer:

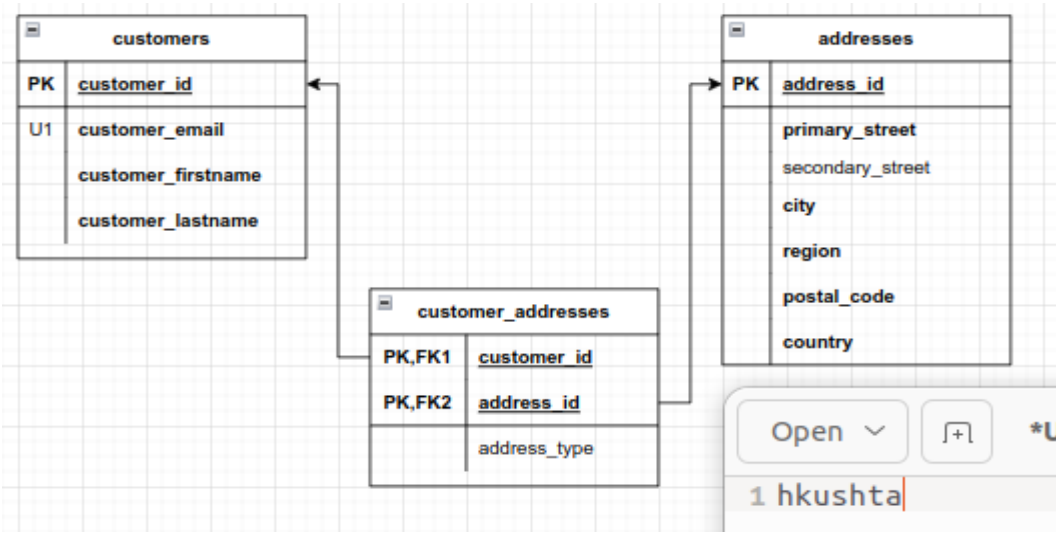
- If you feel the question is vague, include any assumptions you've made.
- If you feel the answer requires interpretation or justification provide it.
- If you do not know the answer to the question, articulate what you tried and how you are stuck.

This how you receive credit for answering questions which might not be correct.

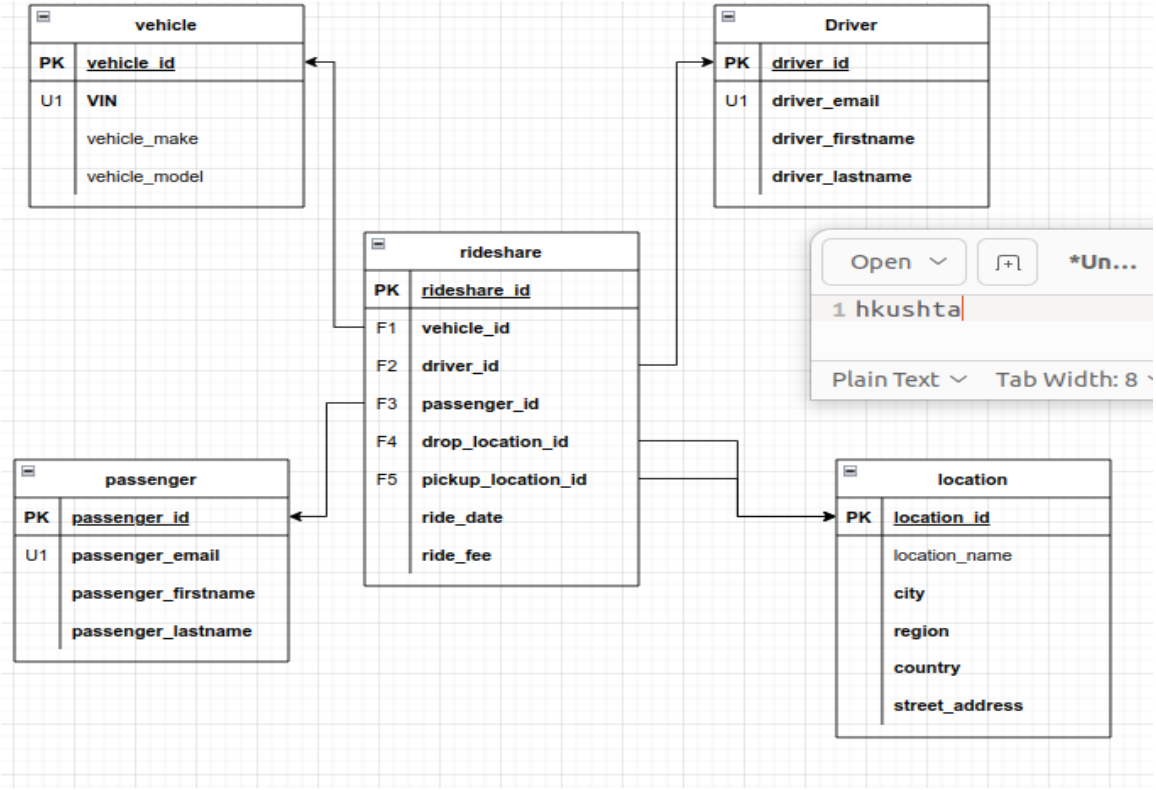
Questions

Answer these questions using the problem set submission template. You will need to provide a screen shot for each answer. Please follow the guidelines for submitting a screenshot.

1. Provide a screenshot of your completed logical model from Walkthrough Step 2.

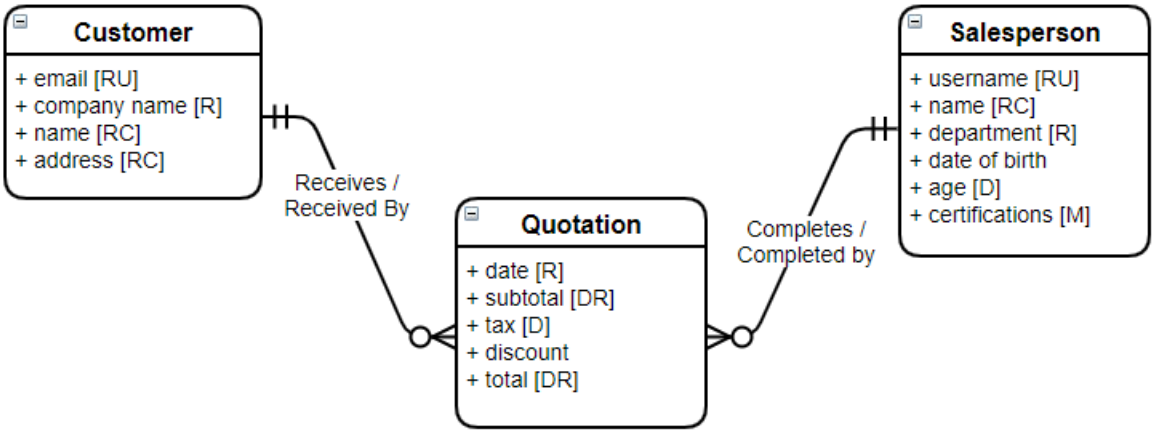


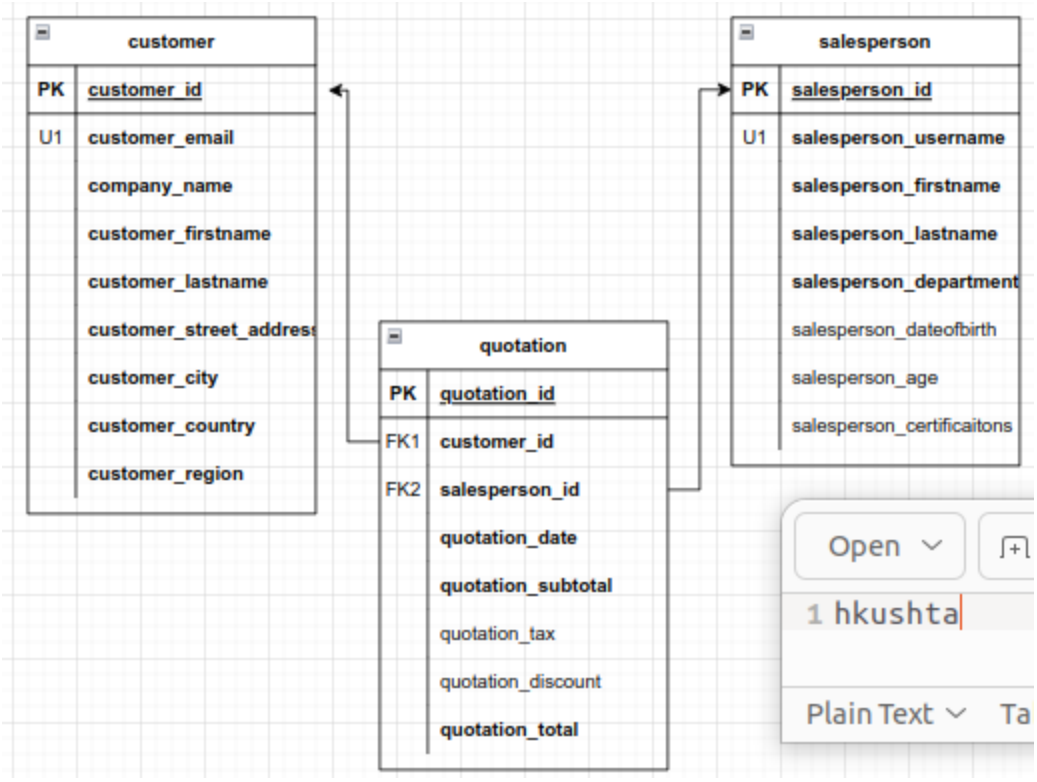
2. Provide a screenshot of your completed logical model from Walkthrough Step 3.



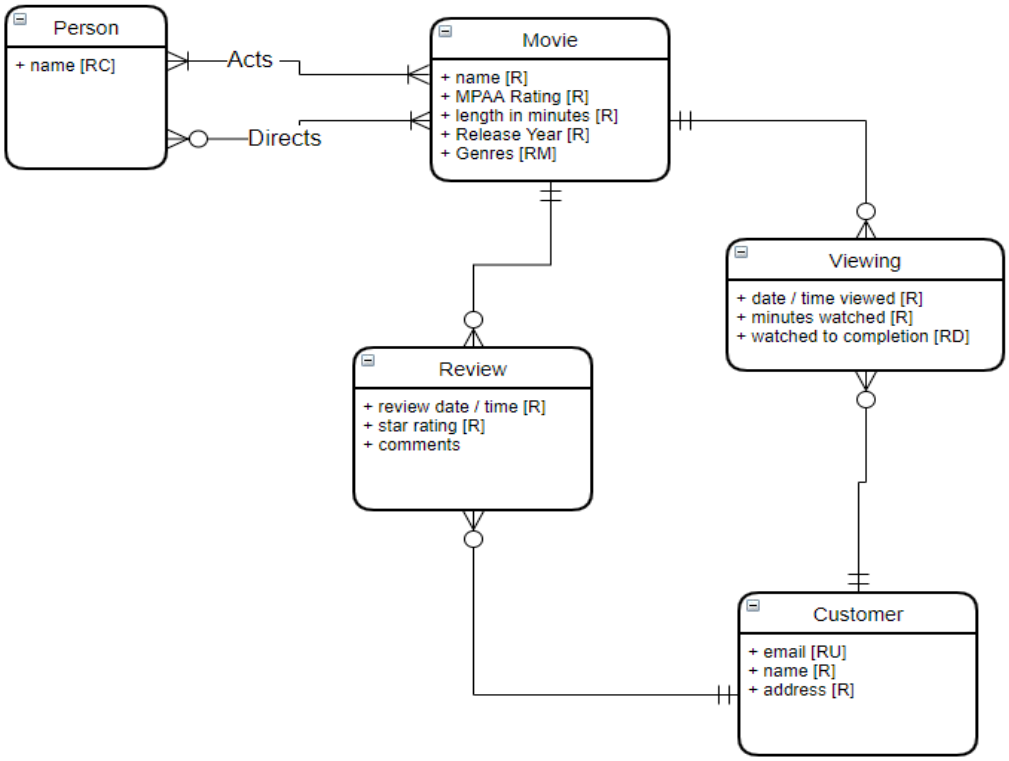
Since there are pickup points and drop off points, there will be 2 foreign keys for location_id, one for each pickup or drop off points.

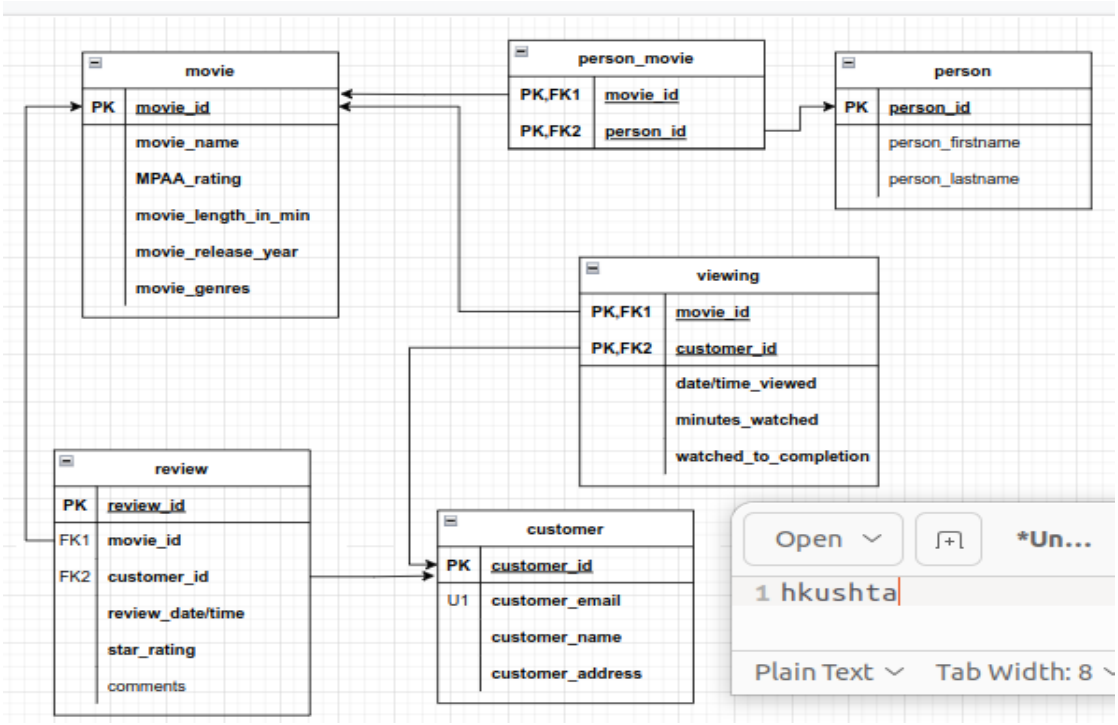
3. Map this conceptual model to a logical model.





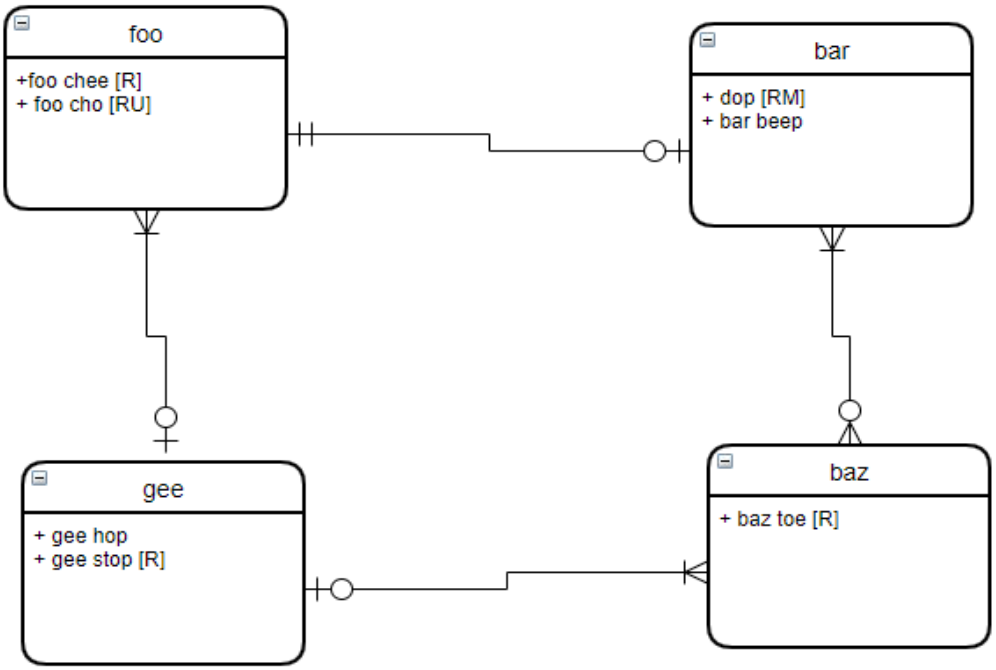
4. Map this conceptual Model to a logical Model

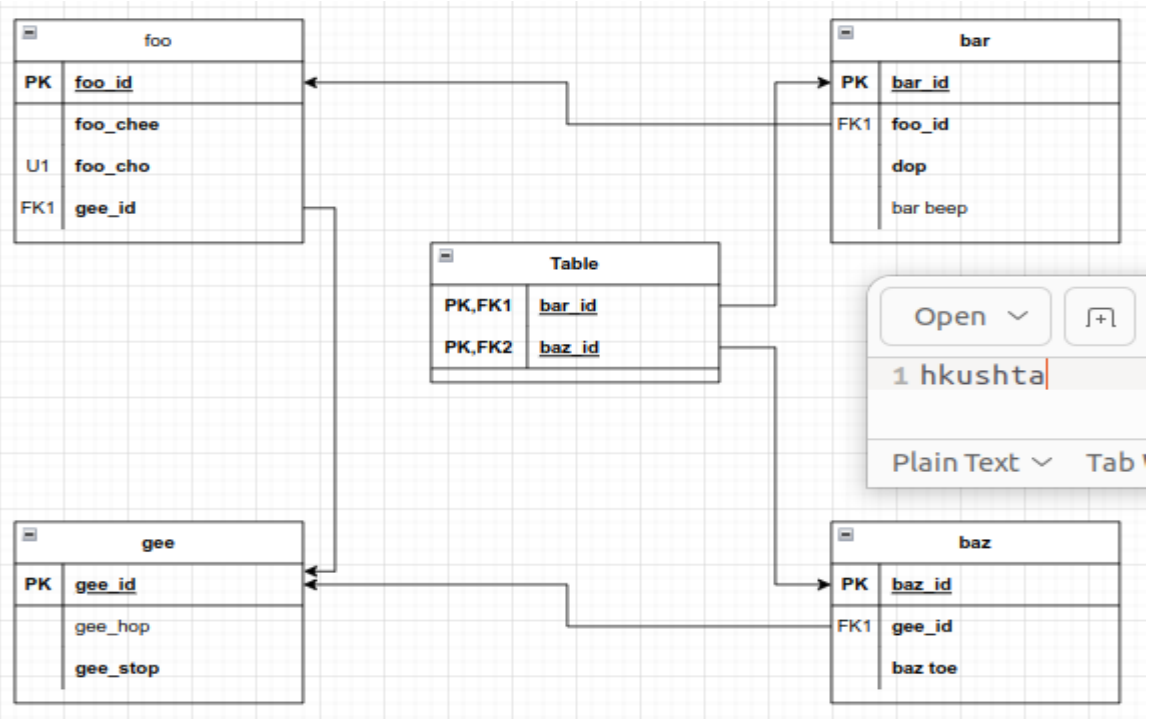




since the model is divided in 2 parts, review and viewing, the viewing entity do not allow repeating values, since, if it repeats, the record will go to the review entity.

5. Map this conceptual model to a logical data model

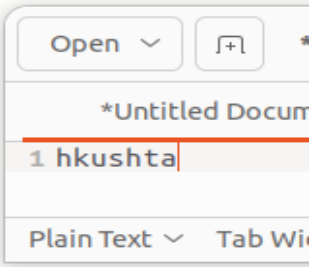




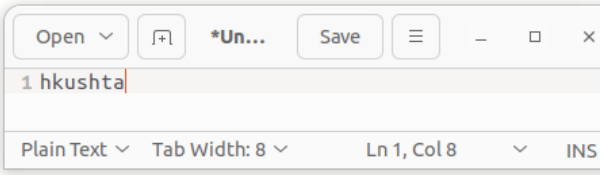
6. Write an SQL Up/Down script to create the tables, keys and constraints for the logical model you created in question 1. Create the tables first with table constraints. Then alter the tables and add the FK constraints. The down part of your script should do this in reverse.

```
use demo

GO

-- DOWN

IF EXISTS(SELECT * FROM INFORMATION_SCHEMA.TABLE_CONSTRAINTS
    WHERE CONSTRAINT_NAME = 'fk_customer_addresses_customer_id')
    ALTER TABLE customer_addresses DROP CONSTRAINT fk_customer_addresses_customer_id

IF EXISTS(SELECT * FROM INFORMATION_SCHEMA.TABLE_CONSTRAINTS
    WHERE CONSTRAINT_NAME = 'fk_customer_addresses_address_id')
    ALTER TABLE customer_addresses DROP CONSTRAINT fk_customer_addresses_address_id


DROP TABLE IF EXISTS customer_addresses
DROP TABLE IF EXISTS customers
DROP TABLE IF EXISTS addresses

GO
```

```sql
-- UP Metadata

CREATE TABLE customers(
    customer_id INT IDENTITY NOT NULL,
    customer_email VARCHAR(50) NOT NULL,
    customer_firstname VARCHAR(50) NOT NULL,
    customer_lastname VARCHAR(50) NOT NULL,
    CONSTRAINT pk_customers_customer_id PRIMARY KEY(customer_id),
    CONSTRAINT u_customers_customer_email UNIQUE(customer_email)
)

GO

CREATE TABLE addresses(
    address_id INT IDENTITY NOT NULL,
    primary_street VARCHAR(50) NOT NULL,
    secondary_street VARCHAR(50) NULL,
    city VARCHAR(50) NOT NULL,
    region VARCHAR(50) NOT NULL,
    postal_code VARCHAR(20) NOT NULL,
    country VARCHAR(50) NOT NULL,
    CONSTRAINT pk_addresses_address_id PRIMARY KEY(address_id)
)

GO
```




```sql
CREATE TABLE customer_addresses(
    customer_id INT NOT NULL,
    address_id INT NOT NULL,
    address_type VARCHAR(20) NULL
)

ALTER TABLE customer_addresses ADD  CONSTRAINT [PK_customer_addresses] PRIMARY KEY NONCLUSTERED
(
    customer_id,
    address_id
) ON [PRIMARY]
GO

ALTER TABLE customer_addresses
    ADD CONSTRAINT fk_customer_addresses_customer_id FOREIGN KEY(customer_id)
        REFERENCES customers(customer_id)

ALTER TABLE customer_addresses
    ADD CONSTRAINT fk_customer_addresses_address_id FOREIGN KEY(address_id)
        REFERENCES addresses(address_id)

GO

-- Verify

SELECT * FROM customers
SELECT * FROM addresses
SELECT * FROM customer_addresses
```



Reflection

Use this section to reflect on your learning. To achieve the highest grade on the assignment you must be as descriptive and personal as possible with your reflection.

1. What are the key things you learned through the process of completing this assignment?

   Creating logical modeling from conceptual modeling.

2. What were the challenges or roadblocks (if any) you encountered on the way to completing it?

3. Were you prepared for this assignment? What can you do to be better prepared?

   Yes, I was

4. Now that you have completed the assignment rate your comfort level with this week's material. This should be an honest assessment: (choose one)

   4 ==> I understand this material and can explain it to others.
   3 ==> I understand this material.
   2 ==> I somewhat understand the material but sometimes need guidance from others.
   1 ==> I understand very little of this material and need extra help.