

mobility service provider



SUBMITTION ON 06 - 25- 2023

**COMP-7115-301 Database Systems**

**Summer Term 2023**

**Title: Mobility Service Provider**

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**ER- Diagrams**

An **Entity Relationship** (ER) Diagram is a type of flowchart that illustrates how entities such as people, objects or concepts relate to each other within a system. The relationship between the tables is many to one, one to one, one to many, many to many depending on the entities chosen.

**.** Each table has its own relationship with its adjacent tables.

**.** Each of them has their own primary and foreign keys, to link each of them.

There are four different functions.

1. One to One (one to one relationship)
2. Many-to -One (many to one relationship)
3. Many-to- Many (many to many relationship)
4. One-to- Many (one to many relationship)

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Each function has its unique feature and represents its own characteristics of the relationship between the tables.

The ER diagram below is another ER diagram which is slightly modified, with the help of some references and adding some more attributes in to the table.



**Creating Tables**

To create tables in the database, we use DDL commands which are also called as **Data Definition Language.** Some of them are:

1. Create command.
2. Drop command.
3. Alter command.

**Create Command:** This command is used to create the tables in the database.

**Drop Command:** this command is used to delete the table, column or a row.

**Alter Command:** This command is used to modify the values or used to modify the table.

We have created tables for Customer, Driver.

The Customer table includes customer ID, name (first and last), pickup point time and address, drop-off time and address.

The Driver table includes the driver’s ID, name (first and last), vehicle model and color, rating of that driver.

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**Enforcing foreign keys and table relationships in the database**

**Primary Key:-** A primary key is used to ensure data in the specific column is unique.

**Foreign key: -** A foreign key is a column or group of columns in a relational database table that provides a link between data in two tables.

From the data which is created into the tables there are different primary and foreign key enforced in itA screenshot of a computer program

Description automatically generated with low confidence like, customer\_ID, Driver\_ID , Invoice\_ID,Driver\_review which are primary keys in the table.

**Manually created test data using insert statement**

An SQL INSERT statement writes new rows of data into a table. Where we have created tables for customers, driver, invoice, and rewards. Basically, the statement is written as “INSERT INTO TABLE-NAME () VALUES();”. Where this SQL statement inserts the required data in the rows in an dedicated table in the schema. We have manually inserted the data into the table as rows in the tables.

**A screenshot of a computer

Description automatically generatedInserting data into customer table:**

**Inserting data into driver table:**

**A screenshot of a computer

Description automatically generated**

These are the two examples of inserting data into the tables as rows. Likewise we have also inserted data using insert statement for invoice table and rewards table.

**References**

For creating ER diagrams:- <https://www.smartdraw.com/entity-relationship-diagram/>

for creating tables:- <https://www.w3schools.com/sql/sql_create_table.asp>

for keys:- <https://learn.microsoft.com/en-us/sql/relational-databases/tables/primary-and-foreign-key-constraints?view=sql-server-ver16>

for keys:- <https://cloud.google.com/spanner/docs/foreign-keys/how-to>

for inserting data into the tables:- <https://www.sqlshack.com/methods-to-insert-data-into-sql-server/>

for inserting date and time :-<https://dev.mysql.com/doc/refman/8.0/en/date-and-time-literals.html#:~:text=For%20example%2C%20to%20insert%20the,'%20%2C%20or%20'ss'%20>.