

## P3 Assignment

Changes were made to the P2 assignment ERD according to the professor's review. The following changes are mentioned below:

1. All the composite & multivalued attributes are mapped to the correct entity.
2. Removal of TRIP entity and definition of RIDE REQUEST associative entity.
3. Correct mapping of foreign keys to appropriate entity.
4. Removable of all Many-to-Many relationships.

Multivalued attribute *Trip History* earlier present in the entities like CUSTOMER and DRIVER was removed because the trip history of a person or a driver is an essentially a report. Hence, it can be retrieved using DML queries. The *Service Info* and *Service Company Name* attribute in the VEHICLE & SERVICE RECORD entity is represented using entities SERVICE REQUEST and SERVICE. Identification of composite attributes such as *PickUp\_Location* and *Destination\_Location* are broken down to *PickUp\_Location\_Lattitude*, *PickUp\_Location\_Longitude*, *Destination\_Location\_Lattitude* and *Destination\_Location\_Longitude*. Because all the location/addresses can be recorded in the DB using the latitude and longitude. Addition of *Trip\_Completion\_Flag* is used to determine which ride request are completed.

TRIP entity was not required, and hence proper definition of the RIDE REQUEST entity optimizes the design and in turn the DB. The SERVICE REQUEST entity was established to server the earlier many-to-many relationship between VEHICLE and SERVICE RECORDS.

All the existing and new FKs are mapped to the many side of the relationship. The FEEDBACK entity had DRIVER FK but did not had any relationship between them. Establishing of appropriate relationship was done to refine the design.

[GitHub Repo Link: DMDD\\_Project\\_Group\\_5](#)