Entities

//Strong Entities

Vehicle (

License\_Plate\_Number: string (9), //PK

Car\_Type: enum,

Number\_of\_Seats: integer (1),

Engine\_Size: float,

Engine\_Type: enum, //!!Auto/Manual enum!!

Cost\_per\_day: decimal (10, 2),

Current\_Location: string (50),

Picture: binary object,

\*Home\_Base: string (50) //FK to Home\_Base

)

Customer (

Mobile\_Number: integer (11), //PK composite

Date\_of\_Birth: date, //PK composite

Age: integer (3), //derived from Date\_of\_Birth

Home\_Address: string (50),

Email: string (50),

First\_Name: string (50),

Last\_Name: string (50),

Driving\_License\_Details: boolean

)

Home\_Base (

Base\_ID: string (50), //PK

Location: string (50)

)

//Weak Entities

Booking (

Booking\_ID: string (50), //PK

Start\_Location: string (50),

End\_Location: string (50),

Insurance\_Extras: boolean,

Rental\_Start\_Date: date,

Rental\_End\_Date: date,

Rental\_Length: integer (3), //derived from Rental\_Start\_Date & //Rental\_End\_Date, min(1)

Price: decimal (10, 2), //derived from Vehicle.Cost\_per\_day & //Rental\_Length

\*License\_Plate\_Number: string (9), //FK to Vehicle

\*Mobile\_Number: integer (11) //FK to Customer

)

Additional\_Drivers (

\*Booking\_ID: string (50), //FK to Booking & comp PK

\*Mobile\_Number: integer (11), //FK to Customer & comp PK

)

Servicing\_Details (

Service\_ID: string (50), //PK

Start\_Date: date,

End\_Date: date,

\*License\_Plate\_Number: string (9) //FK to Vehicle

)

Attributes

Vehicle.Car\_Type (

Small\_Town\_Car,

Family\_Car,

MPY\_7\_seater,

Sports\_Car,

Luxury,

Mini-Vans

)

Vehicle.Engine\_Type (

Manual,

Automatic

)

Relationships

Vehicle-to-Servicing\_Details (

One-to-Many from Vehicle-to-Servicing\_Details,

License\_Plate\_Number FK in Servicing\_Details table

reference License\_Plate\_Number PK in Vehicle

)

Vehicle-to-Booking (

One-to-Many from Vehicle-to-Booking,

License\_Plate\_Number FK in Booking table

references License\_Plate\_Number PK in Vehicle

)

Customer-to-Booking (

One-to-Many from Customer-to-Booking,

Mobile\_Number FK in Booking table

references Mobile\_Number PK in Customer

)

Vehicle-to-Home\_Base (

One-to-Many from Vehicle-to-Home\_Base,

Home\_Base FK in Vehicle table

references Base\_ID PK in Home\_Base

)

Booking-to-Additional\_Drivers (

One-to-Many from Booking-to-Additional\_Drivers

Booking\_ID FK in Additional\_Drivers

references Booking\_ID PK in Booking

)

Additional\_Drivers-to-Customer (

One-to-One,

Mobile\_Number FK in Additional\_Drivers

References PK in Customer

)