IN1010 Data Modeling Exercise 2 – Classic Car Club

In this exercise you have to decide what the entities (tables) are, which attributes should belong in which tables, and what the relationships should be.

A classic car club where members pay a fee to belong and can book out various classic cars for up to 5 days is developing a database to replace its existing paper-based records system. The customer's membership fee is translated into club points. The database needs to record members by their unique membership number, name, address, date of birth and club points. The system needs to record bookings of cars with a unique booking id, a start date and a number of days. The cars available to members need to be put in the database. Each car has a registration number, make, model, mileage and band. When a booking is complete the system should store the invoice information which should show the end date of the booking and the cost of the car in club points.

Develop data model in Visual Paradigm to represent the above scenario.
Hint: The relationship between two of the tables is one we haven't used before, but it is on the Visual Paradigm relationship menu.

Membership (**Entity**)

Primary key
Membership number
Attributes
Name
Address
Date of Birth
Club points

Booking (**Entity**)

Primary key
Booking ID
Attributes
Start/ End date
Number of Days

Cars (**Entity**)

Primary Key
Registration Number
Attributes
Make
Model
Band
Mileage

Invoice Information (**Entity**)

Primary Key
Invoice ID
Attributes
Start/End date
Cost in Club Points

Relationships:

Membership to booking- Membership can have many bookings so it's One to Many
Car to booking- Cars can also have many bookings so its One to Many as well
Bookings to invoice can only be One to One as every booking can only have 1 invoice.

Entity relationship diagram: