

## IN1010 Data Modelling Exercise 2 – Classic Car Club

In this exercise you must 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 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.

### Entity

#### Attribute

#### Key

### Member

Unique Membership number

Name

Address

DOB

Club Points

### Car Booking

Unique Booking ID

Start Date

Number of Days

### Car

Registration Number

Make

Model

Mileage

Band

### Invoice

End date

Cost Club Points

Member to Car Booking will have a relationship of **One-to-Many** as a person will be able to do as many bookings of any or multiple cars as many times as they would want.

Car to Car Booking will have a relationship of **One-to-Many** as a car can be booked not just once but multiple times by any amount of people.

Invoice to Car Booking will have a relationship of **One-to-One** as there can only be a single invoice for a single car booking.

