

IN1010 Data Modelling 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.

Members: (entity)

Member ID (pk)

Name

Address

Date of birth

Club points

Bookings: (entity)

Booking ID (pk)

Member ID (fk)

Car ID (fk)

Start date

Number of days

Invoice information: (entity)

Invoice ID (pk)

Booking ID (fk)

End date

Cost in club points

Cars: (entity)

Car ID (pk)

Registration

Make

Model

Mileage

Band

Cost

Relationship:

Members to Bookings: A member can make many bookings, so this is a one-to-many relationship. Each booking will reference one member.

Cars to Bookings: A car can be booked many times, so this is also a one-to-many relationship. Each booking will reference one car.

Bookings to Invoices: Each booking generates one invoice, so this is a one-to-one relationship.

