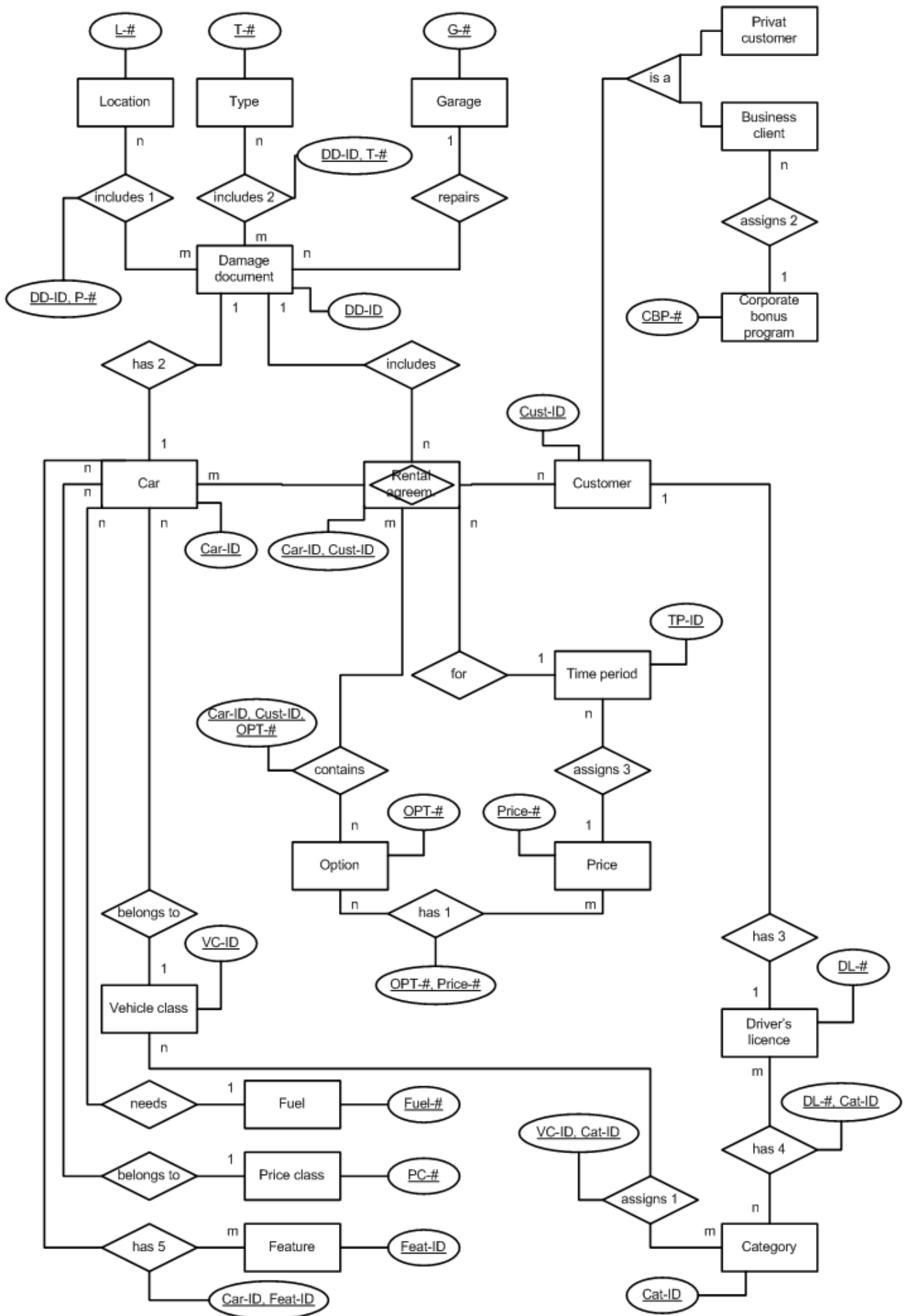


Car rental service

Source: Designed by Gerhard Pokorny

Transfer the following verbal description into an ERM:

- a) A car rental service rents (rental agreement) its cars (Car-ID) to the customers (Cust-ID), who can be private customers or business clients.
- b) Each customer has a driver's licence (DL-#) with one or more categories (Cat-ID). These categories allow the person to drive certain vehicle classes (VC-ID).
- c) Special corporate bonus programs (CBP-#) exist for business clients. These business clients can be assigned to one of these programs.
- d) Each car belongs to one vehicle class, needs a certain fuel (Fuel-#) and belongs to a specific price class (PC-#).
- e) These cars have different features (Feat-ID) (e.g. ESP, ABS ...).
- f) The vehicle is available for rentals for a specified time period (TP-ID). There are fixed prices (Price-#) for several periods (e.g. price per day, price per week).
- g) The rental agreement contains several options (e.g. type of insurance, chauffeur etc.) The client can choose from these options (OPT-#). The prices of the different options may change, depending on the rental period (TP-ID).
- h) Each car has a damage document (DD-ID). In this document, the location (L-#) and the type (T-#) of damage has to be noted. The rental agreement includes the damage document. The car rental firm will have an agreement with several specialized garages (G-#) to repair any damages noted in the damage document.



Car

<u>Car-ID</u>	<u>PC-#</u>	<u>Fuel-#</u>	<u>VC-ID</u>	<u>DD-ID</u>	...

Driver's licence

<u>DL-#</u>	...

Rental agreement

<u>Car-ID</u>	<u>Cust-ID</u>	<u>DD-ID</u>	<u>TP-ID</u>	...

Customer

<u>Cust-ID</u>	<u>CBP-#</u>	<u>DL-#</u>	Type	...

Category

<u>Cat-ID</u>	...

has 4

<u>DL-#</u>	<u>Cat-ID</u>	...

assigns 1

<u>VC-ID</u>	<u>Cat-ID</u>	...

Vehicle class

<u>VC-ID</u>	...

Fuel

<u>Fuel-#</u>	...

Time period

<u>TP-ID</u>	<u>Price-#</u>	...

has 5

<u>Car-ID</u>	<u>Feat-ID</u>	...

Price class

<u>PC-#</u>	...

Feature

<u>Feat-ID</u>	...

Option

<u>OPT-#</u>	...

contains

<u>Car-ID</u>	<u>Cust-ID</u>	<u>OPT-#</u>	...

has 1

<u>OPT-#</u>	<u>Price-#</u>	...

includes 1

<u>DD-ID</u>	<u>P-#</u>	...

includes 2

<u>DD-ID</u>	<u>T-#</u>	...

Damage document

<u>DD-ID</u>	<u>G-#</u>	...

Location

<u>L-#</u>	...

Type

<u>T-#</u>	...

Corporate bonus program

<u>CBP-#</u>	...