## **Protocol Documentation**

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# **Booking.proto**

Booking related messages.

This file is really just an example. The data model is completely fictional.

Author: Elvis Stansvik

## **Booking**

Represents the booking of a vehicle.

Vehicles are some cool shit. But drive carefully!

Table 1. Booking Fields

Field	Туре	Label	Description
vehicle_id	int32	required	ID of booked vehicle.
customer_id	int32	required	Customer that booked the vehicle.
status	BookingStatus	required	Status of the booking.
confirmation_sent	bool	required	Has booking confirmation been sent?
payment_received	bool	required	Has payment been received?

## **BookingStatus**

Represents the status of a vehicle booking.

Table 2. BookingStatus Fields

Field	Туре	Label	Description
id	int32	required	Unique booking status ID.
description	string	required	Booking status description. E.g. "Active".

## **BookingService**

Service for handling vehicle bookings.

Table 3. BookingService Methods

Method Name	Request Type	Response Type	Description
BookVehicle	Booking	BookingStatus	Used to book a vehicle. Pass in a Booking and a Booking Status will be returned

## **Customer.proto**

This file has messages for describing a customer.

Author: Elvis Stansvik

### **Address**

Represents a mail address.

Table 4. Address Fields

Field	Туре	Label	Description
address_line_1	string	required	First address line.
address_line_2	string	optional	Second address line.
address_line_3	string	optional	Second address line.
town	string	required	Address town.
county	string	optional	Address county, if applicable.
country	string	required	Address country.

#### Customer

Represents a customer.

Table 5. Customer Fields

Field	Туре	Label	Description	
id	int32	required	Unique customer ID.	
first_name	string	required	Customer first name.	
last_name	string	required	Customer last name.	
details	string	optional	optional Customer details.	
email_address	string	optional	ptional Customer e-mail address.	
phone_number	string	repeated	Customer phone numbers, primary first.	
mail_addresses	Address	repeated	Customer mail addresses, primary first.	

# Vehicle.proto

Messages describing manufacturers / vehicles.

### Manufacturer

Represents a manufacturer of cars.

Table 6. Manufacturer Fields

Field	Туре	Label	Description
id	int32	required The unique manufacturer ID.	
code	string	required	A manufacturer code, e.g. "DKL4P".
details	string	optional Manufacturer details (minimum orders et.c.).	
category	Manufacturer.Category	optional	Manufacturer category. Default: CATEGORY_EXTERNAL

### Model

Represents a vehicle model.

Table 7. Model Fields

Field	Туре	Label	Description
id	string	required The unique model ID.	
model_code	string	required	The car model code, e.g. "PZ003".
model_name	string	required The car model name, e.g. "Z3".	
daily_hire_rate_dollars	sint32	required	Dollars per day.
daily_hire_rate_cents	sint32	required	Cents per day.

#### **Vehicle**

Represents a vehicle that can be hired.

Table 8. Vehicle Fields

Field	Туре	Label	Description
id	int32	required	Unique vehicle ID.

Field	Туре	Label	Description
model	Model	required	Vehicle model.
reg_number	string	required	Vehicle registration number.
mileage	sint32	optional	Current vehicle mileage, if known.
category	Vehicle.Category	optional	Vehicle category.
daily_hire_rate_dollars	sint32	optional	Dollars per day. Default: 50
daily_hire_rate_cents	sint32	optional	Cents per day.

Table 9. Vehicle Nested Extensions

Extension	Туре	Base	Number	Description
series	string	Model	100	Vehicle model series.

### **Vehicle.Category**

Represents a vehicle category. E.g. "Sedan" or "Truck".

Table 10. Vehicle. Category Fields

Field	Туре	Label	Description
code	string	required	Category code. E.g. "S".
description	string	required	Category name. E.g. "Sedan".

## **Manufacturer.Category**

Manufacturer category. A manufacturer may be either inhouse or external.

Table 11. Manufacturer. Category Values

Name	Number	Description	
CATEGORY_INHOUSE	0	The manufacturer is inhouse.	
CATEGORY_EXTERNAL	1	The manufacturer is external.	

### **File-level Extensions**

Extension	Туре	Base	Number	Description
country	string	Manufacturer	100	Manufacturer country. Default: "China"

# **Scalar Value Types**

.proto Type	Notes	C++ Type	Java Type	Python Type
double		double	double	float
float		float	float	float
int32	Uses variable-length encoding. Inefficient for encoding negative numbers – if your field is likely to have negative values, use sint32 instead.	int32	int	int
int64	Uses variable-length encoding. Inefficient for encoding negative numbers – if your field is likely to have negative values, use sint64 instead.		long	int/long
uint32	Uses variable-length encoding.	uint32	int	int/long
uint64	Uses variable-length encoding.	uint64	long	int/long
sint32	Uses variable-length encoding. Signed int value. These more efficiently encode negative numbers than regular int32s.		int	int
sint64	Uses variable-length encoding. Signed int value. These more efficiently encode negative numbers than regular int64s.		long	int/long
fixed32	Always four bytes. More efficient than uint32 if values are often greater than 2^28.	uint32	int	int
fixed64	Always eight bytes. More efficient than uint64 if values are often greater than 2^56.	uint64	long	int/long
sfixed32	Always four bytes.	int32	int	int
sfixed64	Always eight bytes.	int64	long	int/long
bool		bool	boolean	boolean
string	A string must always contain UTF-8 encoded or 7-bit ASCII text.	string	String	str/unicode
bytes	May contain any arbitrary sequence of bytes.	string	ByteString	str