

Quoting API Blueprint

Purpose

The API is a web service that intends to allow 3rd party immediate access to the finance and leasing quotes for vehicles being sold by a dealer from providers who have registered in Fortellis. The quoting API exposes the the following functions to allow for creation, update and searching of quotes for customers interesting in buy a vehicle from a dealership.

- Searching for an existing quote
 - By vehicle ID
 - By customer ID
 - By deal reference
 - Using a search string
- Saving a vehicle quote
- Get and add a list of payments
- Get and add the payment fees
- Get and add the payment rebates
- Get and add the payment taxes

See the block diagram below. The interface provides uniform access to all payment data irrespective of the provider system, standardizing details that may vary among them. Users of the web service may be different kinds of consumer- or dealer-facing applications.

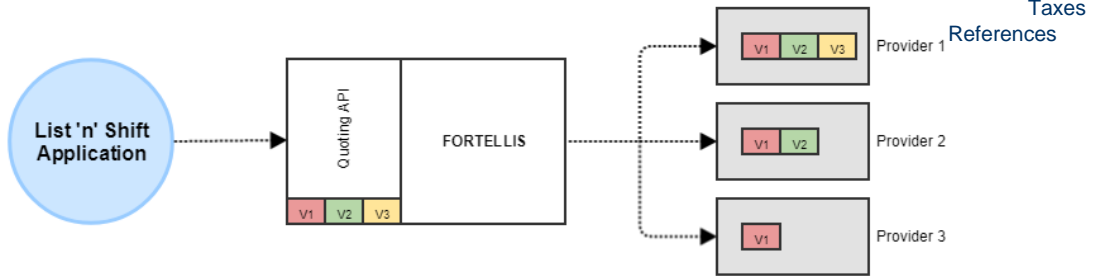


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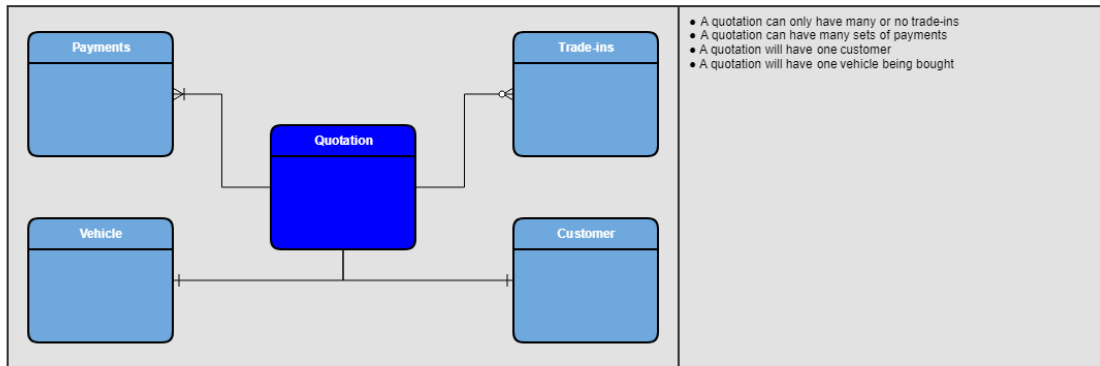
Basic

Workflows

This workflow enables the user to save and re-load a quotation based on the monthly payments required and for that to be reloaded in the DMS. Refer the [API specification](#) for detailed API endpoint descriptions, data dictionary, error codes and status codes.

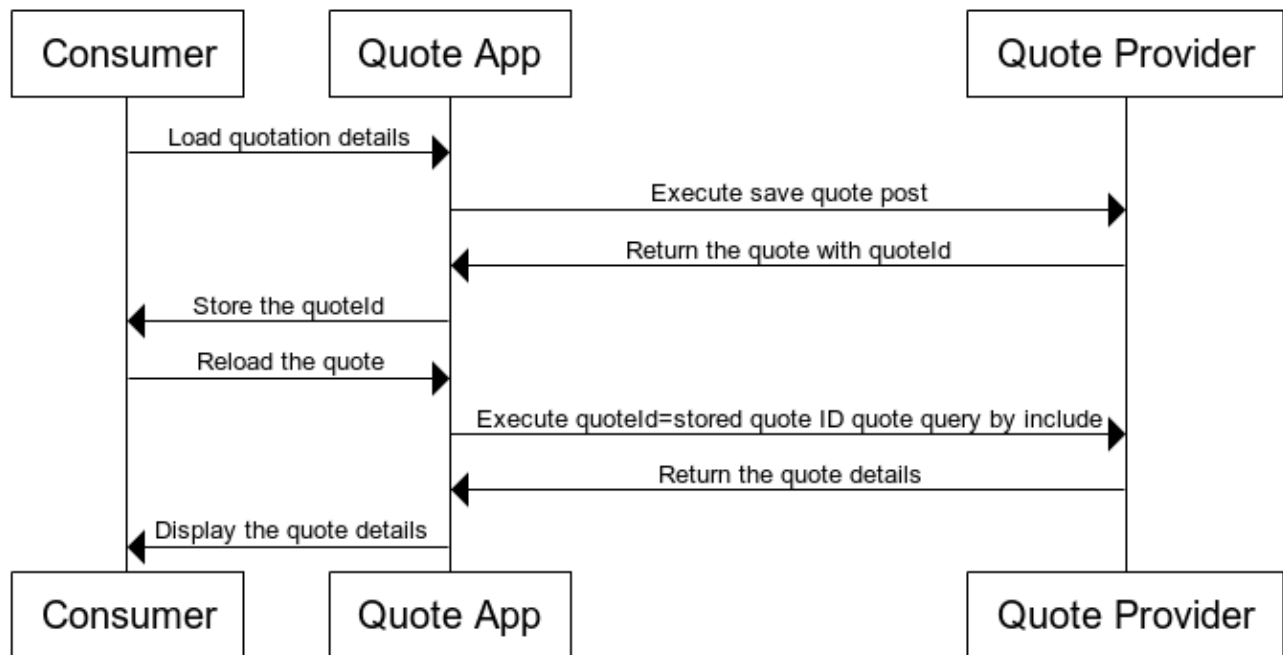
Workflow	Description	Inputs	Constraints	Resource Actions
Save a quotation	Use the call to save the quotation based on the calculated payment from the payments API	<ul style="list-style-type: none"> • Payment calculation ID • Value • Deal reference • Customer • Trade-in details 	<ul style="list-style-type: none"> • Customer ID must exist • Trade-in vehicle IDs must exist 	Post deal creation quoting
Load a quotation	Use this call to load an existing quotation	<ul style="list-style-type: none"> • The deal quote ID 		Query deal creation quoting

Entity Relationships



Sequence Diagram

Basic Flow



```
title Basic Flow
```

```
Consumer->Quote App:Load quotation details
```

```
Quote App->Quote Provider:Execute save quote post
```

```
Quote Provider->Quote App:Return the quote with quoteId
```

```
Quote App->Consumer:Store the quoteId
```

```
Consumer->Quote App:Reload the quote
```

```
Quote App->Quote Provider:Execute quoteId=stored quote ID quote query by include
```

```
Quote Provider->Quote App:Return the quote details
```

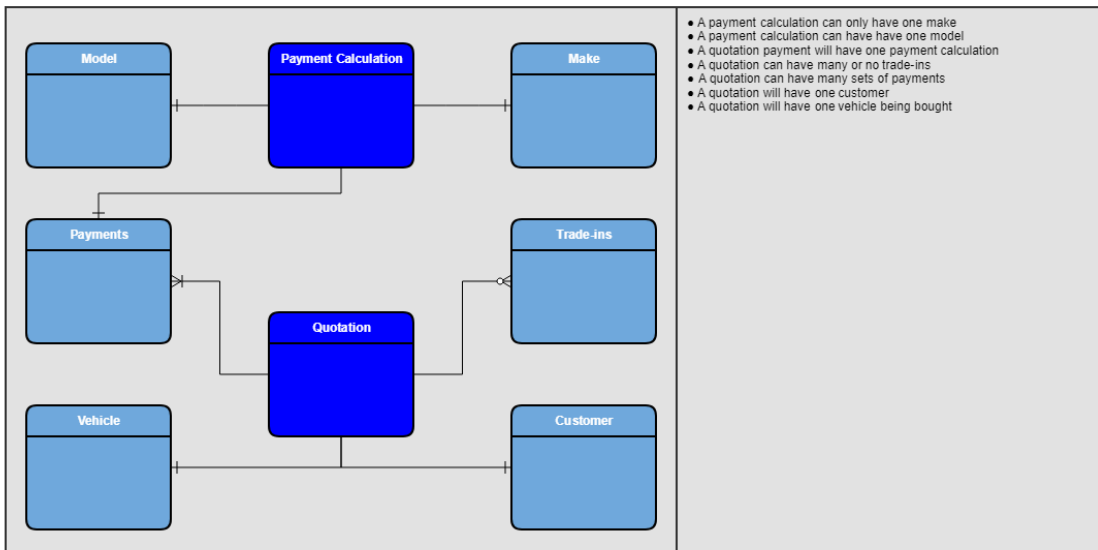
```
Quote App->Consumer:Display the quote details
```

Simple

Workflows

Workflow	Description	Inputs	Constraints	Resource Actions
Find an existing quotation for a deal	Search the quotes based on a deal reference	<ul style="list-style-type: none">Deal reference		Query deal creation quoting
Display the deal information	The search will return the basic deal information found including the quoteId but we may want to get the monthly payments to display to the user	<ul style="list-style-type: none">The deal quote ID		Query deal creation quoting payments

Entity Relationships



Sequence Diagram

Simple Flow



```

title Simple Flow

Consumer->>Quote App:Find my quotes
Quote App->>Quote Provider:Execute dealRef=1234 search quote
Quote Provider->>Quote App:Return the quote with dealRef 1234
Quote App->>Consumer:Display the quote details
    
```

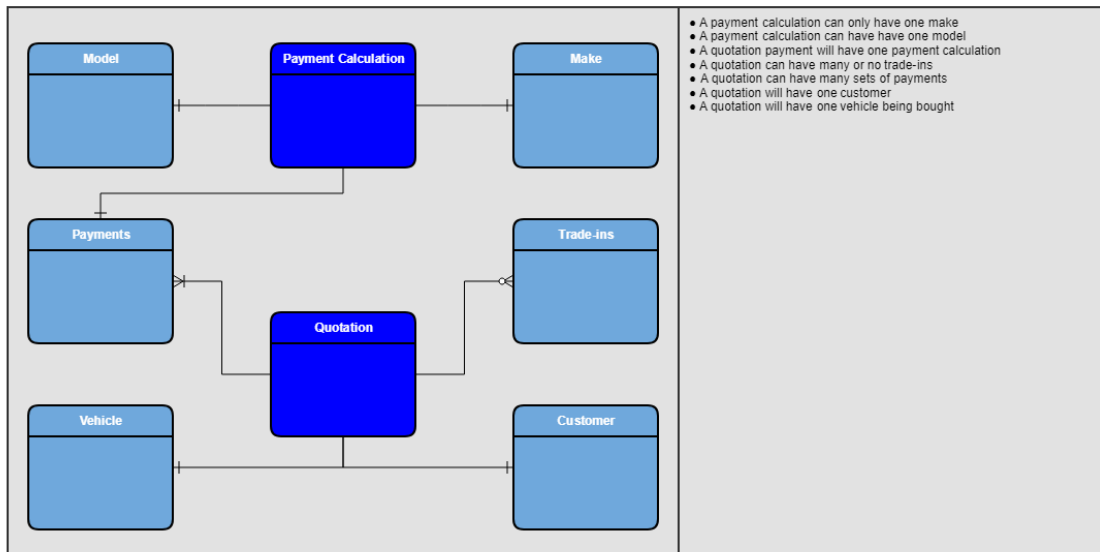
Intermediate

Workflows

Workflow	Description	Inputs	Constraints	Resource Actions
Find a vehicle on a dealer web site and get the price of it	This could be a manual search on the dealers web site with no interaction with Fortellis			
Add a calculate payments API	Once the vehicle required is found use the call to get the monthly payments. Would need to prompt for customer credit rating	<ul style="list-style-type: none"> • Finance type • Finance rate • Finance term • Details of vehicle being bought • Down payment • Customer details including credit rating 	<ul style="list-style-type: none"> • Make must match list of available codes • Model must match list of available codes 	Post deal creation calculate payments

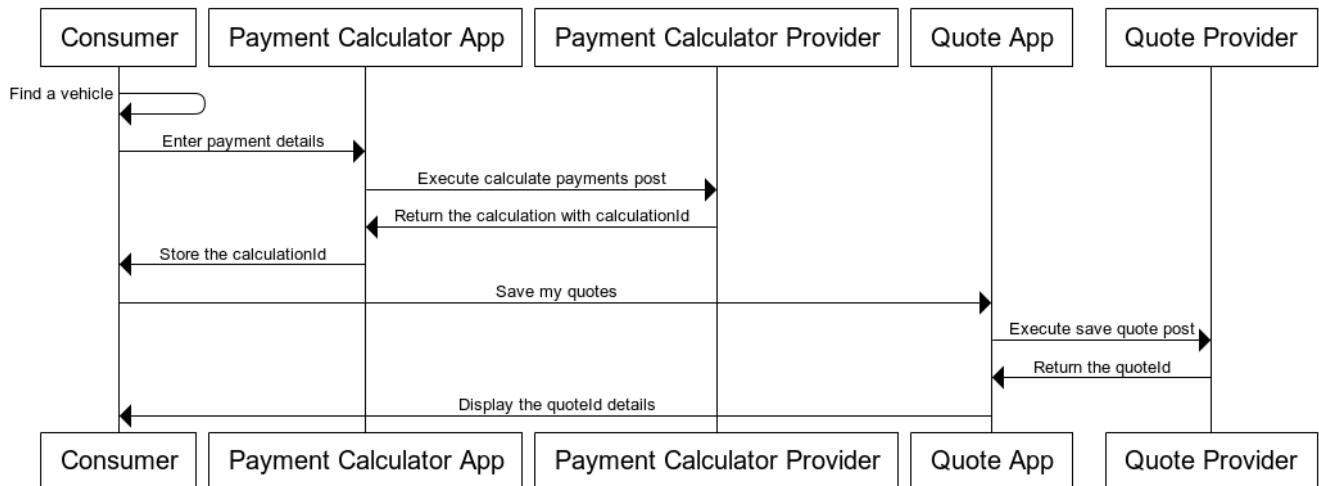
Save the quotation straight away	Use the information returned by the calculation to save the Quotation	<ul style="list-style-type: none"> • Payment calculation ID • Value • Deal reference • Customer • Trade-in details 	<ul style="list-style-type: none"> • Customer ID must exist • Trade-in vehicle IDs must exist 	Post deal creation quoting
The API will return the Quotation number	Display the quotation number to the consumer			

Entity Relationships



Sequence Diagram

Intermediate Flow



```
title Intermediate Flow
```

```
Consumer->Consumer:Find a vehicle
```

```
Consumer->Payment Calculator App:Enter payment details
```

```
Payment Calculator App->Payment Calculator Provider:Execute calculate payments post
```

```
Payment Calculator Provider->Payment Calculator App:Return the calculation with calculationId
```

```
Payment Calculator App->Consumer:Store the calculationId
```

```
Consumer->Quote App:Save my quotes
```

```
Quote App->Quote Provider:Execute save quote post
```

```
Quote Provider->Quote App:Return the quoteId
```

```
Quote App->Consumer:Display the quoteId details
```

Resource Reference

Query Parameters For Create

Parameters used to create the quote

Attribute	Description	Type	Required
dealRef	Reference associated with this deal	string	no
vehicleId	The vehicle of interest being quoted for	string	yes
currencyCode	The currency of the grossValue as a three letter currency code ISO 4217	string	yes
grossValue	The selling price of the vehicle	number	yes
msrp	Manufacturer suggested retail price (MSRP) for the vehicle	number	no

Customer

Attribute	Description	Type	Required
customerId	Customer identifier for the quote	string	no
type	Customer type	string	no

Trade-ins

Attribute	Description	Type	Required
vehicleId	Vehicle identifier of the trade-in	string	no

currencyCode	The currency of the grossValue as a three letter currency code ISO 4217	string	yes
grossValue	Appraised monetary value of the trade-in	number	yes
equity	Equity left in the trade-in vehicle	number	no

Query Parameters For Search

Parameters used to search for a quote

Attribute	Description	Type	Required
vehicleId	The vehicle of interest being quoted for	string	no
customerId	The customer identifier being quoted for	string	no
dealRef	Reference associated with this deal	string	no
search	Search string to find the quote	string	no

Quote Query

Attribute	Description	Type	Required
quoteId	Unique identifier for the quote being returned	string	yes
vehicleId	The vehicle of interest being quoted for	string	no
dealRef	Reference associated with this deal	string	no
currencyCode	The currency of the grossValue as a three letter currency code ISO 4217	string	no
grossValue	The selling price of the vehicle	number	no
msrp	Manufacturer suggested retail price (MSRP) for the vehicle	number	no
residual	The residual value of the vehicle after the finance or lease term expires. Required for Lease deal	number	no

Trade-ins

Attribute	Description	Type	Required
vehicleId	Vehicle identifier of the trade-in	string	no
currencyCode	The currency of the grossValue as a three letter currency code ISO 4217	string	yes
grossValue	Appraised monetary value of the trade-in	number	yes
equity	Equity left in the trade-in vehicle	number	no

Payments

Attribute	Description	Type	Required
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paymentsCalculationId	The payments calculation identifier	string	yes
financeType	The type of finance for the payments. Finance, lease or cash	string	yes
created	Date and time the payments calculation was created as defined by RFC 3339, section 5.6, for example, 2017-07-21T17:32:28Z	string(\$date-time)	no
lender	The name of the lender	string	yes

Calculation Result

Attribute	Description	Type	Required
currencyCode	The currency of the grossValue as a three letter currency code ISO 4217	string	no
monthlyPayment	Monthly payment	number	no
totalPayments	Total monthly payments	number	no
sellingPrice	Calculated selling price	number	no
rate	Default interest rate or interest rate provided by the client	number	no
term	Default term or term provided by the client in months	number	no
residual	Residual value of the vehicle at the end of the agreement period	number	no
amountFinanced	Total amount left to pay after initial down payments and other deductions	number	no

Customer

Attribute	Description	Type	Required
creditRating	Customer's credit rating	string	no
currencyCode	The currency of the deposit as a three letter currency code ISO 4217	string	no
deposit	Deposit paid against the vehicle	number	no
downPayment	The cash amount applied to reduce the capital cost	number	no

Fees

Attribute	Description	Type	Required
name	The name of the fee	string	no
currencyCode	The currency of the grossValue as a three letter currency code ISO 4217	string	no
grossValue	The monetary value of the fee	number	no
taxable	Is the fee taxable?	boolean	no

Rebates

Attribute	Description	Type	Required
name	The name of the rebate	string	no
currencyCode	The currency of the grossValue as a three letter currency code ISO 4217	string	no
grossValue	The monetary value of the rebate	number	no

Taxes

Attribute	Description	Type	Required
name	The name of the tax	string	no
currencyCode	The currency of the grossValue as a three letter currency code ISO 4217	string	no
grossValue	The monetary value of the tax	number	no

References

[Deal Creation Quoting API Specification](#)