retail

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Retail Schema

Retail data is centered around customer transactions, in which a product or products are purchased at a specific point in time. Typically data is available per transaction line. Each transaction line corresponds to a purchase of a unique item. A receipt or transaction header can contain multiple transaction lines. Some platforms do not expose transaction lines, but aggregated transactions per day per product.
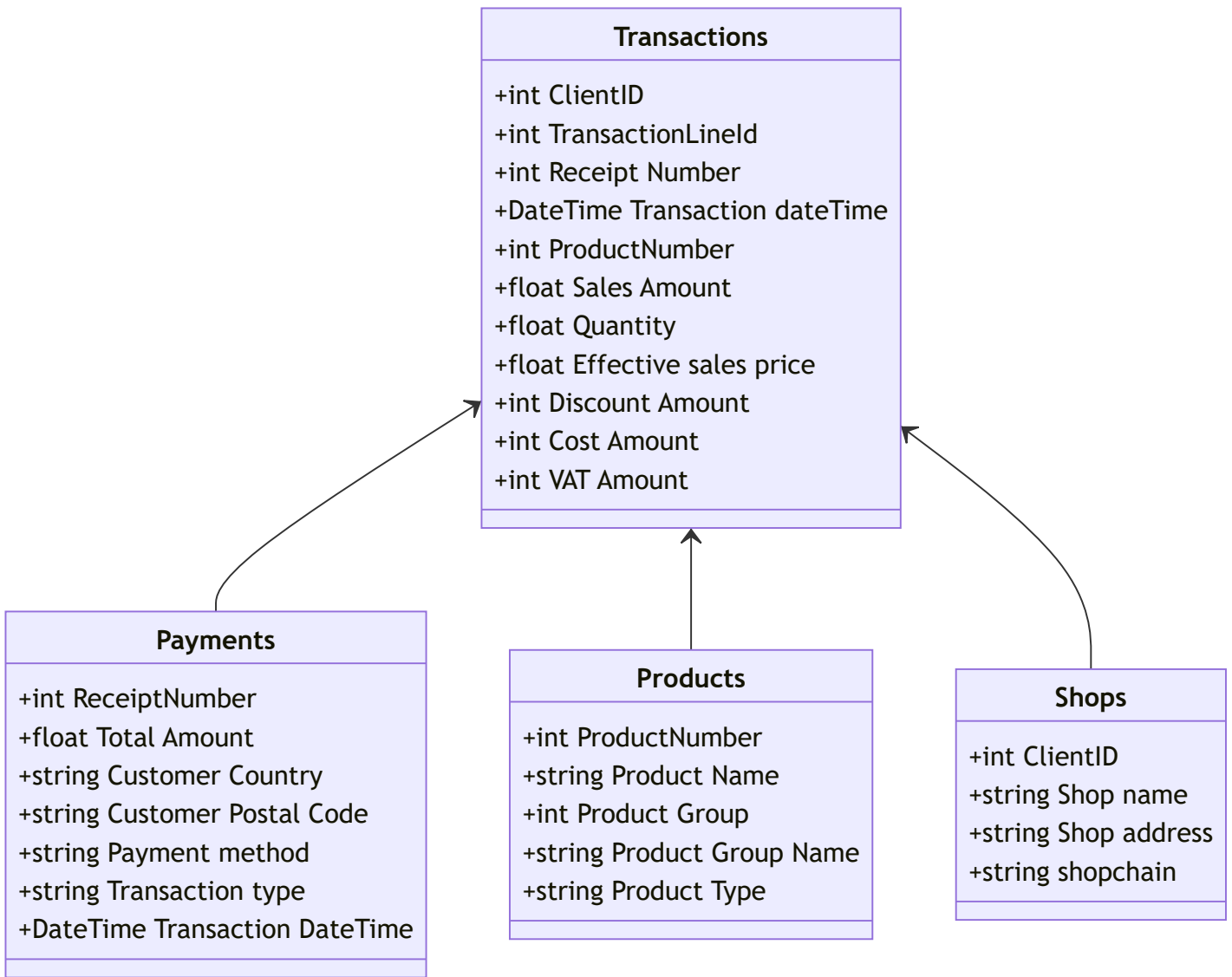
Transaction Lines are linked to a transaction header or payment header. A payment will list the transaction type, payment method, the total receipt sum and sometimes a customer object.

In Momenttum retail data is mapped to 4 tables as illustrated below. Not all retail platforms specifically expose data per table. However, in Momenttum data will be mapped to this structure. When integrating to retail POS platforms, the important point is to what extent data can be mapped to the Momenttum retail schema. A detailed field description and a list of required fields are listed below.

Retail Tables

- Transactions
- Payments
- Products
- Shops

Retail Schema Diagram

Transactions

+int ClientID
+int TransactionLineId
+int Receipt Number
+DateTime Transaction dateTime
+int ProductNumber
+float Sales Amount
+float Quantity
+float Effective sales price
+int Discount Amount
+int Cost Amount
+int VAT Amount

Payments

+int ReceiptNumber
+float Total Amount
+string Customer Country
+string Customer Postal Code
+string Payment method
+string Transaction type
+DateTime Transaction DateTime

Products

+int ProductNumber
+string Product Name
+int Product Group
+string Product Group Name
+string Product Type

Shops

+int ClientID
+string Shop name
+string Shop address
+string shopchain

Retail Schema Tables

Below the field structure of each table in the Momenttum retail schema is described.

transactions

Transactions correspond to a purchase of a number of products. Optimally transactions are available per transaction line in which each line refers to a purchase of a unique product. Some systems aggregate product sales per day per product. In this case the otherwise required fields TransactionLineId and ReceiptNumber are not required are even available.

FIELD	DESC	REQUIRED	KEY
ClientID	ClientID of the shop	Yes	Y
TransactionLineId	Transaction line identifier	Yes**	
ReceiptNumber	Receipt number. One or more transaction lines are linked to a receipt	Yes**	Y
Transaction dateTime	Datetime of the transaction	Yes	
ProductNumber	Product number of the item purchased	Yes	Y
Quantity	Number of items purchased	Yes	
Amount	Line Amount. Amount without discount	Yes	
Effective sales price	Effecttive line amount. Amount minus Discount	Yes	
Discount	Line discount	Yes	
Costprice	Line Cost price	No	
VAT	VAT	No	

Payments

Payments or transaction header is the actual payment of the receiptnumber. The payment tables is linked to the transaction via the receiptnumber. Lists payment type, sales-channel and sometimes customer data.

FIELD	DESC	REQUIRED	KEY
ReceiptNumber	Receipt key	Yes	Y
Total Amount	Total receipt amount. Based on effective sales price	Yes	
Customer Country		No	
Customer Postal Code		No	
Sales channel	Sales channel, i.e. online, shop	Yes	
Payment method	Payment method i.e. cash, card	No	
Transaction type	Used to identity records to include in data. Internal sales, cash register balance	No	
Transaction DateTime	Date time of payment	Yes	

Products

Products table that lists products metadata. Product hierachies are sometimes only available on product group level, which is fine.

FIELD	DESC	REQUIRED	KEY
ProductNumber	Product number	Yes*	Y
Product Name	Product name	Yes*	
Product Group	Product Group Name	Yes*	
Product Group Number	Product Group Number	Yes*	
Product Type	Used to identify items to include in transactions	No	

Shops

Retail shops metadata

FIELD	DESC	REQUIRED	KEY
clientID	Shop ID	Yes	Y
Shop name	Name of the shop	Yes	
Shop address	Shop address	Yes	
Shop chain	Name of teh retail chain the shop belongs to	No	

Retail API Schema Example

The API example is one example on how data can be extracted from an external API. The purpose is to serve as inspiration and as a blueprint for configuring new API endpoints specifically for Momenttum. The important point is that data can be mapped to the Momenttum Schema.

transactions

Transactions are are extracted using an apitoken, clientid and from and to dates to manage delta loads of data. The table below lists expected parameters.

Name	API Documentation
Authorization	API token
clientid	clientid
fromDate	The from date in yyyy-MM-dd format
todate	The to date in yyyy-MM-dd format

Response

Returns an array of transaction objects.

```
{
        "clientId": 162001,
        "transactionLineId": 1,
        "receiptNumber": 12345678,
        "transactionDateTime": "2023-01-01T12:10:00",
        "productNumber": 345,
        "productName": "",
        "quantity": 1,
        "amount": 1500.00,
        "discount": 600.00,
        "effectiveSalesPrice": 900.00,
        "vat": 375,
        "costPrice": 300.00
    }
```