hotel

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Hotel data Schema

The purpose of this document is to define a data schema for hotel booking data on the platform VisitData. The schema definition distinguishes between required and optional fields. Required fields are used in either benchmark calculations or in analytics.

If a client or platform makes data available through an external API, the hotel data schema should be used as a check-list. The data-structure on the client site, will likely not match the structure of the hotel schema. The important point is, that client data can be mapped to the hotel data schema.

If a client or platform sends data to the visitdata platform using the visitdata rest API, the data structure should adhere to the hotel data schema.

The data schema contains the following tables.

Hotel Tables

- Metadata
- Availability
- Reservations
- Other turnover

Hotel Schema Tables

Metadata

Hotel metadata used to identify the hotel and hotel location. All clients are mapped to a municipality, so we need either an address or a municipalityId to link a client to a specific municipality.

```
{
    "metaData": [
        {
            "hotelId": 298741,
            "hotelName": "Hotel navn",
            "hotelChain": "Hotel chain",
            "hotelType": "Konference",
            "address":"Amager landevej xx",
            "zipCode": 2300,
            "municipalityId": 101,
        }
    ]
}
```

Field	Data type	Definition	Required
hotelId	string/guid	Unique hotel identifier	yes
hotelName	string	Name of the hotel	yes
hotelChain	string	If the hotel is part of a hotel chain, add the name of the hotel chain. Else leave the field blank	no
hotelType	string	Hotel type if available	no
address	string	Hotel address	no
zipCode	integer	Zip code	yes
municipalityId	integer	Municipality code	no

Availability

Lists hotel capacity per day. Returns the total number of rooms at the hotel; rooms that are out of order or otherwise unavailable and the resulting number of rooms that can be booked (availableRooms).


```
{
    "availableRooms": [
        {
            "date": "2024-06-29T00:00:00",
            "totalNumberOfRooms": 90,
            "roomsOutOfOrder": 5,
            "availableRooms": 85,
        },
        {
            "date": "2024-06-30T00:00:00",
            "totalNumberOfRooms": 90,
            "roomsOutOfOrder": 3,
            "availableRooms": 87,
        }
    ],
    "hotelId":298741
}
```

Field	Data type	Definition	Required
date	date time	Formatted as yyyy-MM-dd or yyyy-MM-ddT00:00:00 if time is included	yes
totalNumberOfRooms	integer	The total number of rooms at the hotel	yes
roomsOutOfOrder	integer	Total number of rooms that are out of order or otherwise unavailable	yes
availableRooms	integer	totalNumberOfRooms minus roomsOutOfOrder. The total number of rooms that can be booked. The actual capacity for the day.	yes
hotelId	string/guid	Unique hotel identifier	yes

Reservations

Hotel reservations lists room reservations including room price and customer data. Each line correspond to a room booking. A reservation can contain multiple room bookings (bookingId's).


```
{
    "reservations": [
        {
            "bookingDate": "2023-11-22T11:40:42",
            "room": {
                "roomNumber": "1234",
                "maxPersons": 2,
                "roomType": "Standard Dobbeltværelse"
                },
            "priceExclVat": 456.50,
            "roomCount": 1,
            "reservationId": 289401,
            "bookingId": "12345",
            "hotelId": 298741,
            "arrival": "2025-01-07T14:00:00",
            "departure": "2025-01-10T11:00:00",
            "guest": {
                "country": "DK",
                "zipCode": "2300"
                },
            "numberOfAdults": 2,
            "numberOfChildren": 0,
            "status": "active",
            "segment": "leisure individuelle",
            "bookingSource": "Online",
            "bookingChannel": "Booking.com"
        }
    ]
}
```

Field	Data type	Definition	Required
bookingDate	date time	The datetime when the booking is made. Formatted as yyyy-MM-ddThh:mm:ss	yes
room.roomNumber	integer	Room number/identifier	no
room.maxPersons	integer	Max number of persons in the room	no
room.roomType	string	RThe room type as defined by the hotel	no
priceExclVat	float	Room price excluding vat and not including extra packages/breakfast and similar. Just room price.	yes
roomCount	integer	Number of rooms booked. Typically 1. Field is included to handle a data structure in which rooms in a single reservations is grouped.	yes
reservationId	int/guid	Reservations identifier	yes
bookingId	int/guid	Room booking identified. Multiple room bookings can be associated with a single reservation	yes
hotelId	int	Unique hotel identifier	yes
arrival	int	Arrival datetime, formatted as yyyy-MM-ddThh:mm:ss	yes
departure	int	Departure datetime. Formatted as yyyy-MM-ddThh:mm:ss	yes
guest.country	string	The country code of the person making the reservation. Iso code with 2 digits	yes
guest.zipCode	int	The zip code of the person making the reservation	yes
numberOfAdults	int	Number of adults	yes
numberOfChildren	int	Number of children, using the hotels own definition of a child.	yes
status	string/category	The status of the booking.	yes
segment	string/category	The customer segment, business or leasure	yes
bookingSource	string/category	Booking source, online, email, phone, walk-in etc	yes

Field	Data type	Definition	Required
bookingChannel	string	If the booking source is online, include the booking channel as booking.com etc. Else leave the field blank	yes

Category fields, should contain the following values or we should be able to map values to these categories.

The status column defines, whether a booking is active or cancelled.

Status
Cancelled
Active

The segment groups all segments in either business or leisure.

Segment
Business individuelle
Business group
Leisure individuelle
Leisure group
Other

Booking sources. We distinguish between online travel agents (OTA) and online booking directly from the hotels website.

bookingSource
Walk in
E-mail
OTA
Phone
Own website

Other Turnover

Other turnover is all other turnover not part of the room booking. This includes both services and packages included in the booking and extra packages. These services can be extra beds, breakfast and turnover from a restaurant, minibar and bars.

The flag isAdditional defines whether the service is included in the booking or if teh service is an extra purchased package. If the bookingId is set, the service can be linked to a room booking. If the service cannot be linked to a room booking the field is blank.


```
{
    "otherTurnover": [
     {
        "hotelId": 12345,
        "bookingId": 64578,
        "date": "2025-01-08T06:30:00",
        "isAdditional": 0,
        "serviceName": "Breakfast buffet",
        "serviceGroupName": "Breakfast",
        "quantity": 1,
        "amount": 75.0
    }
    ]
}
```


Field	Data type	Definition	Required
hotelId	string/guid	Unique hotel identifier	yes
bookingId	int/guid	Room booking identifier	yes
date	date time	The datetime when the service is used, i.e. the date of the breakfast not when is was ordered Formatted as yyyy-MM-ddThh:mm:ss	yes
isAdditional	bool	1 service is an extra package. 0 service is added as part of teh booking	yes
serviceName	string	The name of the service	yes
serviceGroupName	string	If available, the category of the service, i.e. minibar, restaurant etc	no
quantity	int	quantity	yes
amount	float	Amount paid for the service. Excluding vat	yes

Definitions and Business Logic

Definitions

- The arrival date counts as a booked day
- Departure date does not count as a booked day
- Occupancy rates are calculated using hotel availability (total capacity - rooms out of order)
- All room rates and amounts are without VAT and in DKK

Load Schedule

Data is loaded weekly. The load includes future bookings, i.e. for the next 6 months. In an initial data load historic data is included, current year - 2 years. After the initial load, data is loaded using a delta load in which new or modified records are returned. Details around the delta load mechanism is discussed per integration.