



# 1 Task

## 2 REST API

This REST API represents a *Hotel Booking API* consisting of 10 different resources, each one accessible by its corresponding name (in plural form). All supported HTTP calls with their meanings and JSON resource objects are listed below.

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### 2.2 Users

URI	HTTP	Body	Description
/users	GET	-	Get a list of all users
/users/:id	GET	-	Get details of a user
/users	POST	JSON	Add a new user
/users	PUT	JSON	Update a user
/users/:id	DELETE	-	Delete a user
/users/:id/bookings	GET	-	Get all bookings of a user
/users/:id/payments	GET	-	Get all payments of a user
/users/:id/reviews	GET	-	Get all reviews of a user

```
{  
  "id": integer,  
  "first_name": string,  
  "last_name": string,  
  "username": string,  
  "email": string,  
  "password": string,  
  "bookings": [Booking, Booking, ...],  
  "payments": [Payment, Payment, ...],  
  "reviews": [Review, Review, ...]
```

```
}
```

## 2.3 Hotels

URI	HTTP	Body	Description
/hotels	GET	-	Get a list of all hotels
/hotels/:id	GET	-	Get details of a hotel
/hotels	POST	JSON	Add a new hotel
/hotels	PUT	JSON	Update a hotel
/hotels/:id	DELETE	-	Delete a hotel
/hotels/:id/users	GET	-	Get a list of all users staying in a hotel
/hotels/:id/rooms	GET	-	Get a list of all rooms of a hotel
/hotels/:id/bookings	GET	-	Get a list of all current bookings of a hotel
/hotels/:id/payments	GET	-	Get a list of all completed payments of a hotel
/hotels/:id/reviews	GET	-	Get a list of all user reviews of a hotel
/hotels/:id/facilities	GET	-	Get a list of all facilities provided by a hotel
/hotels/:id/media	GET	-	Get a list of all media (photos) of a hotel

```
{  
  "id": integer,  
  "name": string,  
  "description": string,  
  "location": Location,  
  "star_rating": float,  
  "user_rating": float,  
  "guests": [User, User,...],  
  "rooms": [Room, Room,...],  
  "bookings": [Booking, Booking,...],  
  "payments": [Payment, Payment,...],  
  "reviews": [Review, Review,...],  
  "facilities": [Facility, Facility,...],  
  "media": [Media, Media,...]  
}
```

## 2.4 Rooms

URI	HTTP	Body	Description
/rooms	GET	-	Get a list of all hotel rooms
/rooms/:id	GET	-	Get details of a hotel room

URI	HTTP	Body	Description
/rooms	POST	JSON	Add a new hotel room
/rooms	PUT	JSON	Update a hotel room
/rooms/:id	DELETE	-	Delete a hotel room

```
{  
  "id": integer,  
  "room_no": string,  
  "description": string,  
  "category": string,  
  "size": integer,  
  "capacity": integer,  
  "price": float  
}
```

## 2.5 Bookings

URI	HTTP	Body	Description
/bookings	GET	-	Get a list of all bookings
/bookings/:id	GET	-	Get details of a booking
/bookings	POST	JSON	Add a new booking
/bookings	PUT	JSON	Update a booking
/bookings/:id	DELETE	-	Delete a booking
/bookings/:id/rooms	GET	-	Get a list of all rooms of a booking

```
{  
  "id": integer,  
  "date": date,  
  "arrival_date": date,  
  "departure_date": date,  
  "user_id": integer,  
  "rooms": [Room, Room, ...]  
}
```

## 2.6 Payments

URI	HTTP	Body	Description
/payments	GET	-	Get a list of all payments
/payments/:id	GET	-	Get details of a payment
/payments	POST	JSON	Add a new payment

URI	HTTP	Body	Description
/payments	PUT	JSON	Update a payment
/payments/:id	DELETE	-	Delete a payment

```
{  
  "id": integer,  
  "date": date,  
  "payment_method": string,  
  "amount": float,  
  "booking_id": integer  
}
```

## 2.7 Reviews

URI	HTTP	Body	Description
/reviews	GET	-	Get a list of all hotel reviews
/reviews/:id	GET	-	Get details of a hotel review
/reviews	POST	JSON	Add a new hotel review
/reviews	PUT	JSON	Update a hotel review
/reviews/:id	DELETE	-	Delete a hotel review

```
{  
  "id": integer,  
  "date": date,  
  "rating": integer,  
  "comment": string,  
  "user_id": integer,  
  "hotel_id": integer  
}
```

## 2.8 Facilities

URI	HTTP	Body	Description
/facilities	GET	-	Get a list of all hotel facilities
/facilities/:id	GET	-	Get details of a hotel facility
/facilities	POST	JSON	Add a new hotel facility
/facilities	PUT	JSON	Update a hotel facility
/facilities/:id	DELETE	-	Delete a hotel facility

```
{  
  "id": integer,  
  "name": string,  
}
```

```
"category_id": integer
}
```

## 2.9 Facility Categories

URI	HTTP	Body	Description
/categories	GET	-	Get a list of all facility categories
/categories/:id	GET	-	Get details of a facility category
/categories	POST	JSON	Add a new facility category
/categories	PUT	JSON	Update a facility category
/categories/:id	DELETE	-	Delete a facility category

```
{
  "id": integer,
  "name": string
}
```

## 2.10 Locations

URI	HTTP	Body	Description
/locations	GET	-	Get a list of all hotel locations
/locations/:id	GET	-	Get details of a hotel location
/locations	POST	JSON	Add a new hotel location
/locations	PUT	JSON	Update a hotel location
/locations/:id	DELETE	-	Delete a hotel location

```
{
  "id": integer,
  "longitude": float,
  "latitude": float,
  "city": string,
  "country": string,
  "country_code": string
}
```

## 2.11 Media (Photos)

URI	HTTP	Body	Description
/media	GET	-	Get a list of all hotel media
/media/:id	GET	-	Get details of a hotel media

URI	HTTP	Body	Description
/media	POST	JSON	Add a new hotel media
/media	PUT	JSON	Update a hotel media
/media/:id	DELETE	-	Delete a hotel media

```
{  
  "id": integer,  
  "name": string,  
  "description": string,  
  "url": string,  
  "width": integer,  
  "height": integer  
}
```