

Instructions for the Candidate

- All details provided in the assignment are sufficient. The candidate is free to make logical decisions independently.
 - We expect the candidate to deliver **production-ready software code**.
 - The software code should **build successfully** (maven or gradle).
 - The code can be shared via **GitHub**.
-

Assignment

Marvel hospitality management corporation has a microservice based IT and one of the microservice **room-reservation-service** is to manage the reservations.

Your task is to develop following two functionalities in a **Spring Boot application**:

1. Rest end point to confirm a room reservation.
 - a. If mode of payment is cash, room must be confirmed immediately
 - b. If mode of payment is credit card, call rest api **credit-card-payment-service** to retrieve the status of the payment. If credit payment is confirmed, then confirm the room else throw an error
 - c. If mode of payment is bank transfer, room must be booked with pending payment status.
 2. Consume **bank-transfer-payment-update** topic to listen to payment updates and confirm the booking if payment is confirmed.
 3. Automatically cancel the reservation, If the payment is done using a bank transfer and total amount is not received 2 day before the reservation start date.
-

Rest Endpoint Details

1. Confirm room reservation

Request Data:

- Name of Customer
- Room Number
- Reservation start and end date
- Room segment

- Small
- Medium
- Large
- Extra Large
- Mode of Payment
 - Cash
 - Bank Transfer
 - Credit Card
- Payment Reference

Response:

- Reservation Id
- Reservation status
 - PENDING_PAYMENT
 - CONFIRMED
 - CANCELLED

Validations:

- A room cannot be reserved for more than **30 days**.

Extra information

Event driven architecture

Marvel hospitality uses an event broker for implementing event driven architecture. A topic **bank-transfer-payment-update** provides the events related to the payments received on hotels account. Following is data present in the event

Attribute	description
paymentId	Unique id of the payment
debtorAccountnumber	Account number from which payment was done
amountReceived	Payment amount
transactionDescription	Transaction Description. Format < E2E unique id(10 character)> <reservationId (8 characters)>

	Example 1401541457 P4145478
--	--------------------------------

credit-card-payment-service specs

open api specs *credit-card-payment-service.yaml* is provided along with the assignment.