

Description

You need to implement a system for automatic subscription rebilling, which will handle scenarios of insufficient funds on the card. If a payment attempt returns an "insufficient funds" response from the bank, the system should reduce the payment amount and retry (up to 4 times). If the payment is successful but for less than the full amount, the remaining balance should be automatically charged a week later.

Each payment attempt should be made using the `/paymentIntents/create` API, which will emulate the payment gateway.

Task:

- 1. Main Rebilling Logic:**
 - First, try to charge the full subscription amount.
 - If the bank responds with "insufficient funds," attempt to charge 75%, 50%, and 25% of the amount.
 - A maximum of 4 attempts is allowed for each rebill.
- 2. Partial Rebill:**
 - If a payment succeeds but not for the full amount, automatically schedule an additional transaction one week later for the remaining balance.
- 3. Using the API to Emulate the Payment Gateway:**
 - Each payment attempt should be processed through the `/paymentIntents/create` API, which will return a successful or failed status depending on the conditions.

API:

POST `/paymentIntents/create`

- **Request:**
 - `amount`: the amount to charge
 - `subscription_id`: the subscription identifier
- **Response:**
 - `status`: `success`, `failed` or `insufficient_funds`

Requirements:

- Implement in Ruby (without using external libraries for payment API handling).
- The logic should be split into clear methods with appropriate exception handling.
- Rebill results should be logged.