Email Service API Documentation

Introduction

Our Email Service API enables you to send emails reliably and track their delivery status. It features automatic retries, provider fallback, and safeguards against duplicate sends to ensure your emails reach their recipients without hassle.

API Endpoints

1. Send Email — POST /send-email

Send an email by providing the necessary details.

- **Request Headers**:
  Content-Type: application/json

- **Request Body**:

Field	Type	Description	Required
id	string	A unique identifier for this email (used for idempotency)	Yes
to	string	Recipient's email address	Yes
subject	string	Subject line of the email	Yes
body	string	Main content/body of the email	Yes

- **Success Response** (HTTP 200):

  Json :
  {

"emailId": "email1",
"status": "sent"
  }

- Possible status values:

  - "sent": Email was successfully delivered.

  - "duplicate": This email was already sent previously (based on the unique id).

  - "failed": Email could not be sent after retries.

- **Error Responses**:

- **400 Bad Request**
  Missing one or more required fields.

  json:
  {
"error": "Missing required email fields"
}
  - **500 Internal Server Error**
    Unexpected error during processing.

    json:
    {
"error": "Internal server error"
    }

2. Check Email Status — GET /status/:emailId

Retrieve the current status of an email by its unique ID.

- **Path Parameter**:

Parameter	Type	Description
emailId	string	The unique identifier of the email to check

- **Success Response** (HTTP 200):

  json:
  {

"emailId": "email1",
"status": "sent"
}

- **Error Response**: **404 Not Found**
  No email found with the given ID.

  json:
  {

"error": "Email ID not found"
}

Email Status Definitions

Status	Meaning
sent	Your email was successfully delivered.
duplicate	The email with this ID was already processed.
failed	The email failed to send after multiple attempts.

EmailService Class

This class handles sending emails via multiple providers, automatically retrying and switching providers if one fails. It keeps track of sent emails using unique IDs to prevent duplicates.

Key Methods

sendEmail(email)

- Sends an email with the provided details.

- Automatically retries sending in case of failure.

- Switches to a backup provider if the primary fails.

- Returns the sending status.

Parameters:

- email (object) — Contains:

    - id (string): Unique email identifier.

    - to (string): Recipient email address.

    - subject (string): Email subject.

    - body (string): Email content.

Returns:
Promise<string> — The final status: "sent", "duplicate", or throws an error if unable to send.

getStatus(emailId)

- Retrieves the status of an email by its unique ID.

- Returns undefined if the email ID is not found.

delay(ms)

- A simple helper to pause execution for a given number of milliseconds.

- Used internally for retry backoff.