Database Schema Design

This document outlines the database schema design for an image processing system that handles CSV files containing product information and associated image URLs. The schema is implemented using Prisma ORM with a PostgreSQL database.

Schema Overview:

- The database consists of two main models: Product and Request.
- Products store information related to image URLs (input and output) for individual product entries.
- Requests track the status of image processing tasks.

Product Model:

The Product model stores product information and image URLs.

Fields:

- requestId (String): Unique identifier for the product request, primary key.
- serialNumber (String): A unique serial number for each product.
- productName (String): Name of the product.
- inputImageUrls (String[]): Array of original image URLs.
- outputImageUrls (String[]): Array of processed image URLs, defaulting to an empty array.
- createdAt (DateTime): Timestamp when the product entry was created.
- updatedAt (DateTime): Timestamp automatically updated when the product entry is modified.

Request Model:

The Request model tracks the status of each image processing task.

Fields:

- id (String): Unique identifier for the request, primary key.

- status (RequestStatus): Enum field that tracks the status of the request. Possible values: PENDING, IN_PROGRESS, COMPLETED, FAILED. Defaults to PENDING.

- createdAt (DateTime): Timestamp when the request was created.

- updatedAt (DateTime): Timestamp automatically updated when the request status is modified.

RequestStatus Enum:

The RequestStatus enum represents the state of an image processing request.

Values:

- PENDING: The request is awaiting processing.

- IN_PROGRESS: The image processing is ongoing.

- COMPLETED: The request has been successfully completed.

- FAILED: The request has failed during processing.