Bulk Email Sender Project Documentation

# Overview

The Bulk Email Sender is a **NestJS-based** application designed to send emails to multiple recipients with attachments using the **Gmail SMTP server**. It utilizes TypeORM for database interactions with a **PostgreSQL database** to store the email sending history.

# Project Structure

bulk-email/  
 │  
 ├── node\_modules/  
 │  
 ├── src/  
 │ ├── email/  
 │ │ ├── DTOs/  
 │ │ │ ├── attachment.dto.ts  
 │ │ │ └── email.dto.ts  
 │ │ ├── email.controller.ts  
 │ │ ├── email.module.ts  
 │ │ └── email.service.ts  
 │ ├── entities/  
 │ │ └── history.entity.ts  
 │ ├── app.controller.spec.ts  
 │ ├── app.controller.ts  
 │ ├── app.module.ts  
 │ ├── app.service.ts  
 │ └── main.ts  
 │  
 ├── test/  
 │  
 ├── .eslintrc.js  
 ├── .gitignore  
 ├── .prettierrc  
 ├── nest-cli.json  
 ├── ormconfig.ts  
 ├── package-lock.json  
 ├── package.json  
 ├── README.md  
 └── tsconfig.build.json

# Detailed Overview

## Email Module

This module handles email-related functionalities including sending emails and storing email history.

### DTOs

- `attachment.dto.ts`: Defines the structure for email attachments.  
 - `email.dto.ts`: Defines the structure and validation for email data.

### Controller

`email.controller.ts`: Defines the `/email/send` endpoint for sending emails.

### Service

`email.service.ts`: Contains the logic for sending emails using nodemailer and saving email history to the database.

### Module

`email.module.ts`: Configures the Email module and imports necessary dependencies.

## Entities

`history.entity.ts`: Defines the `History` entity for storing email sending history in the database.

## App Module

`app.module.ts`: Main application module that imports other modules including the Email module.

# Configuration Files

`ormconfig.ts`: TypeORM configuration file for connecting to the PostgreSQL database.

# Setting Up and Running the Application

## Prerequisites

- Node.js (>= 14.x)  
 - PostgreSQL

## Installation Steps

1. \*\*Clone the Repository\*\*

```bash

git clone <repository-url>

cd bulk-email

```

2. \*\*Install Dependencies\*\*

```bash

npm install

```

3. \*\*Configure Database Connection\*\*

Update the `ormconfig.ts` file with your database connection details:

```typescript

import { History } from 'src/entities/history.entity';  
 import { PostgresConnectionOptions } from 'typeorm/driver/postgres/PostgresConnectionOptions';  
  
 const ormConfig: PostgresConnectionOptions = {  
 type: 'postgres',  
 database: 'BulkEmail',  
 host: 'localhost',  
 port: 5432,  
 username: 'your-username',  
 password: 'your-password',  
 entities: [History],  
 synchronize: true,  
 schema: 'public',  
 };  
  
 export default ormConfig;

```

4. \*\*Set Up Database\*\*

Ensure PostgreSQL is running and create a database named `BulkEmail`.

5. \*\*Run the Application\*\*

```bash

npm run start

```

# Sending Email via Postman

To send an email via Postman, create a POST request to `http://localhost:3000/email/send` with the following JSON body:

```json

{  
 "to": ["recipient1@example.com", "recipient2@example.com"],  
 "subject": "Test Email",  
 "body": "This is a test email to multiple recipients.",  
 "attachments": [  
 {  
 "path": "C:\Users\pc\Desktop\aaa.PNG"  
 }  
 ]  
 }

```