

Develop a books & subscribers management and publishing website

Mg Mg would like to build a books & subscribers management and publishing system where he can create a profile for author, create different categories to assign to books, add new books of an author under a specific category and once he finished creating new books, he would like to publish the book and notify to list of subscribers about the publishment of new book through email.

He wants to develop an API for other developers to integrate in their website to develop functions to subscribe to Mg Mg's books management system. So, the subscribers will be coming to his system through an API and the subscribers will be stored in the database to send emails when a new book is published in the system.

The API route should be: *https://localhost:3000/api/subscribe*

The subscribe API will have to accept **name** and **email** and store it in the database. He wants to have a page where he sees the list of all subscribers.

In the system, he would like to have pages to list all the authors, add new authors, edit the existing author and delete an author. He wants to store following information of an author:

1. **Name**
2. **Email**
3. **Phone**
4. **Address**
5. **Profile photo**

When creating/editing an author, he wants the system to have required validation checking for all attributes and if fails to provide data for an attribute, show an error message on the form.

For categories of books, he wants to have pages to list all the categories, add new categories, edit the existing category and delete a category. He wants to store following information of a category:

1. **Category name**

When creating/editing a category's name, he wants the system to have required validation checking for all attributes and if fails to provide data for an attribute, show an error message on the form.

Regarding books management, he wants to have pages to list all the books, add new books, edit existing books and delete a book. He wants to store following information of a book:

1. **Title**
2. **Cover photo**

3. **Description**
4. **Select and attach multiple authors**
5. **Select and attach multiple categories**
6. **Record book's published date**
7. **Upload pdf file**

When creating a book, he would like to upload a cover photo in image format, attach multiple authors as a book can have multiple authors, attach multiple categories as a book can have multiple categories and upload and store a pdf file of the book.

In the books list page, you will have to show every book created and on each book, there should be a button, **Publish**, to publish the book if the book is not published yet. If a book is published, no need to show the **Publish** button but show the status **Published**.

When the **Publish** button is clicked, he wants to publish the book and send to the email address of all the Subscribers about the new book through Email.

Use a background job to send Email to each subscriber as time by time there will be millions of subscribers in the database and he is worried that this function will crash the system.

In the Email, he wants to show following content:

1. **Book's title**
2. **Book's authors**
3. **Book's cover photo**
4. **Book's category names**
5. **Book's published date**
6. **Book's author's profile photo**
7. **Book's pdf download link**

He wants to have a place to view all the emails that are going to be sent out to each subscriber. Also, he wants to have a functionality to cancel sending out emails to each subscriber. The cancel function should stop sending out emails.

In order to send actual emails, you can use following SMTP credentials:

```
config.action_mailer.smtp_settings = {  
  address:      'email-smtp.ap-southeast-1.amazonaws.com',  
  port:         ENV["SMTP_PORT"] || Settings.mandrill.port,  
  user_name:    'AKIAYIXRR24BQ4NFNLM',  
  password:     'BBZYt8f0yLA5e8vTIf4GMlb+5DMqokkYHgSqw+LEH4OW',  
  authentication: "login",  
  enable_starttls_auto: true  
}
```

*Once you have finished the development, please zip the project and upload to the **Source-Codes** folder of the google drive.*

Exam time: December 12 2022 - December 18 2022(3 pm)