

ToDo package

This project is defined for Laravel to design a project-independent package that adds the Todo ability to the main project. At the end, after copying your package files to the main project and adding it to composer (or easily installing it through the composer and packagist or gitlab private), your package is expected to connect to the main project and enable the Todo feature for that project.

Entities

1. **User:** This entity is defined by the main project. To make it simple, add token column to users table. use that for API authentication.
2. **Label:** Labels help users to filter tasks. labels should be unique and system should not have a duplicate label.
3. **Task:** Task contains Title, Description, and Status.

Entity-Relationship Model

- User can have 1 + n task.
- Task can have 1 + n label.

System details

- As a logged-in user, I should be able to add label. So that I can label tasks to filter those.
 - Label should be unique in the system
- As a logged-in user, I should be able to add a new Task.
- As a logged-in user, I should be able to edit a Task.
 - Title and Description
- As a logged-in user, I should be able to change status of a Task.
 - Open
 - Close
- As a logged-in user, I should be able to add 1+n labels to a task.
- As a logged-in user, I should be able to get list of labels.
 - **LabelAPIResource** should contains
 - id
 - label
 - Total tasks that have this label. (Only tasks of the logged in user)
- As a logged-in user, I should be able to get list of tasks with labels.
 - Each task should contains:
 - id

- title
 - description
 - labels Array of LabelAPIResource
 - Total tasks that have this label. (Only tasks of the logged in user)
- As a logged-in user, I should be able to get details of a task.
- As a logged-in user, I should not be able to get list of other user's tasks.
- As a logged-in user, I should not be able to get details of other user's tasks.
- As a logged-in user, I want to receive a notification when I close the task's status.
 - Generate a notification:
 - On throw notification, write log
 - On throw notification, send an email (You can use <https://mailtrap.io>)

Definition of Done:

- Use Laravel 7
- This package must be designed and optimized to respond to a large number of requests.
- You should develop the project with TDD approach.
- Add a middleware to authorize user via **Authorization** header and **Bearer TOKEN**.
- All system details should be available via API.
- All API endpoints should have test.

Bonus:

- Publish package on packagist
- Add view layer via blade