

Homework AAP conversion API

Create a TODO list REST API (.NET core 3.1).

Functional requirements:

- Allow users to create, get, update and delete TODO lists
- Allow users to create, get, update and delete TODO items
- Allow users to create, get and delete Labels
- Allow users to assign Labels to TODO lists or TODO items
- TODO lists and items should support pagination and search
- Login endpoints must be available
- User must be logged in to use the API
- Create and update date should be available for both TODO lists and items
- User can access only his TODO lists and items

Non-functional requirements:

Solution:

- The solution must contain layered infrastructure and use dependency injection
- Logging must be used (logging level could be changed in configuration files)
- Requests, responses, and errors should be available in logs
- The solution must be tested
- The solution should support settings for different environments (dev and production)
- The local database should be used to store the data
- Readme file with documentation and how to run the solution
- The solution could be run using Docker containers
- Add GraphQL implementation to this API (playground endpoint enabling to do the queries for the API). The hot Chocolate library can be used - <https://hotchocolate.io/>

API:

- API should support Accept and Content-Location headers
- TODO items can be updated both by PATCH and PUT requests
- API must return correct HTTP status codes with meaningful error messages
- Requests should support CorrelationId header and write it to the logs

Swagger:

- API should have swagger UI that could be used to interact with the API (<https://github.com/domaindrivendev/Swashbuckle>)
- Examples and response types should be available in swagger
- Headers should be available in the swagger