

## Author

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I like putting together applications.

## Description

We have to replicate a standard Kanban application using a frontend library as well as an API.  
We are also expected to take care of allied technologies like export, reporting, batch jobs.

## Technologies used

SQLAlchemy  
Flask  
WeasyPrint  
Redis  
Celery  
Flask Security  
Flask Restful  
SQLite  
VueJS  
FakeSMTP  
Bootstrap  
HTML  
CSS  
Pandas

Flask SQLAlchemy: Basic routing and database related operations

Vue.JS: Create frontend and interface to connect with Flask API

Celery, Redis, FakeSMTP: Asynchronous batch jobs

Pandas: Export data as CSV files

weasyprint: Convert HTML reports to PDF format

## DB Schema Design

Tables:

### 1. Users

- a. user\_id (primary key): Integer, identifier for users
- b. user\_name: String, name of the user
- d. user\_password: String, password of the user's account which is encrypted and Stored

### 2. Lists

- a. list\_id(primary key): Integer, identifier for lists
- b. title : String, name of the list
- c. description: desc of the list

### 3. Cards

- a. card\_id(primary key): Integer, identifier for cards
- b. card\_title: String, title of the card
- c. card\_content: String, description/contents of the task/card
- d. card\_complete:Boolean, Status of completion of the task
- e. card\_complete\_date: Datetime, date on which the card was completed

## API Design

APIs have been created and utilized for signing up and logging in to the user's account. They are also used for performing CRUD operations on lists, as well as cards. APIs are finally used for export jobs

## Architecture and Features

The backend folder consists of the business logic – Flask routes, cache description, asynchronous jobs, and such. It also contains the report format and the project database.

The frontend folder consists of all the different views and JS/.VUE files for running the application.

There is a sign-in form for users, after which they are redirected to the Board view for them, from where they can manage their lists and cards, including options to update, delete, and export lists/cards, get summaries of lists, and an option to convert the web application to a desktop application (Progressive Web Application). There is functionality for daily reminders and monthly reports sent in PDF reports via email

## Video

<https://drive.google.com/file/d/1L4EpJdU13UTFzo2PCqZeBUB-tyUKvPkL/view?usp=sharing>