Technical Test

The goal of this exercise is to build a fully functional API application using best practices and reusable code.

Rules

Your application must use the **Flask** web framework and the **SQLAlchemy** library for interacting with the database.

You may use the built-in development server and SQLite as the database engine.

You are free to use any other libraries you like. All dependencies should be installable via pip and listed in a requirements.txt file.

You should **include unit tests**.

Task

Step 1: Create a small contact management API with the following functionality:

- List all contacts
- Find a contact by username
- Create a new contact
- Update a contact
- Delete a contact

At a minimum, the Contact model consists of a **username**, **first name** and **last name**. You may add any other columns necessary to implement the required functionality.

Step 2: As a second step, extend your application to support email addresses.

Introduce a new Email model and allow a Contact to have multiple email addresses. Adjust the endpoints above to return emails in their output and accept emails as input as you see fit.

Step 3 (Optional): Dockerise the application

- Dockerise the application and add all necessary files for testing locally