Backend Test Project - AddressBook

Your task is to implement an AddressBook backend API. Detailed specifications for the test project are provided below. We estimate that you will not need more than a single day at relaxed coding speed to implement it.

Project description

The AddressBook backend will be used by your users to perform the following tasks:

- Register new account
- Login to existing account
- Manage their contacts

Technical details

Your backend should be able to serve both mobile apps and websites using a RESTful API. The following technical requirements are placed on your implementation:

Deployment

- Deploy the application to either Heroku or AWS ECS or EC2

API

- Use Node.js
- Use a well-known framework (preferable Koa or Express) for the API
- HTTP responses should follow best practices in the industry (especially with regard to status code definitions and request/response headers' usage - you may consult RFC 2616 for more information)
- API should communicate with their clients using JSON data structures
- Use stateless authentication - you can use JSON Web Tokens and the authentication token can be permanent.

User accounts

- All user account information should be stored in either a relational database (MySQL, PostgreSQL, etc.)
- Registrations should be done with email and password
- You should implement the following functionality:

- User registration
- User login

Contact data

- All your users' contacts should be stored in database
- You should implement only the following functionality on backend:
  - Create a new contact
  - Retrieve a single contract
  - Retrieve list of contracts
  - Delete a contract
  - Update a contract
- Contact data can consist of name of the contact and the phone number

Review process

We would like you to think in terms of backend architecture, development processes, code extensibility and readability, and how you generally deal with the challenges you might face while implementing this API.