

Backend Coding Challenge - 23B

Feature Requirements

Create service/s that constitute an alarm solution offering the following features:

1. User registration and login through email and password with optional Google sign-in.
2. CRUD APIs for a timer service which includes:
 - Single-shot alarm given a date and time.
 - Alarms that can repeat daily, multiple days a week or monthly.
3. Alarms should have a subject and message that goes out to the email address specified in the alarm.
4. Email sending service can be clustered into multiple servers.
5. Optionally allow for clients to subscribe to receive alarms when they fire.

Technical Requirements

1. Create a private GIT repository on Github.
 1. Add **fareed-fmc** as a collaborator.
 2. Develop the project on Github (rather than on local).
2. Must be a performant Node.js backend application using an appropriate database.
3. Ideally include a design document and an API specification in Swagger or OpenAPI.
4. Use a test framework to test functionality. Do not code the front-end.
5. Include instructions on how to build, run and test the services in the [README.md](#)
6. Code must be organised and utilise carefully selected dependencies, frameworks, libraries or tools with documented justification.
7. Complete as much as possible in a reasonable timeframe.

You do not need to go overboard with functionality and should not reinvent the wheel. We're mainly looking for elegant, scalable, extendable and testable code that can be easily deployed.