

## Assignment

### Assignment: Customizing a Go API Codebase

Get familiar with the provided Go backend codebase and apply your understanding by modifying the existing data entity, its handlers, validators, and database table.

#### Instructions

#### 1. Explore the Codebase:

- Identify the **Handler**, **Service**, **Repository**, and **Model** layers based on the **Handler - Service - Repository** pattern.
- Review how each layer interacts with the others, observing how requests are processed and responses are generated starting from **main.go**.

#### 2. Modify the Data Entity:

- apply your understanding of the codebase by modify the Data entity in some way. For example add/remove fields, modify field names. Do this according to your project needs.

#### 3. Update Database Table:

- Alter the database schema to match the new entity:  
`/api/cmd/production.db`
- The database can be removed or edited. If deleted a new empty database will be generated at next startup.

#### 4. Customize Handlers:

- Modify (according to need) each handler to work with the new entity, updating request parsing and response formatting based on the new attributes.

#### 5. Adjust Services and Validators:

- Update (according to need) validation rules specific to the new entity.

#### 6. Authentication:

- Change the username and password for the API. This is done in the auth-middleware.

## **7. Testing:**

- Update unit tests for each modified layer to confirm that the new entity and related functions work as expected.
- Use `go test` to verify your changes.
- Test API with modified entity and credentials.

Submit a short (3-4 pages) report containing the following:

- What changes you made and why.
- How each layer required modifications to accommodate the new entity.
- Include screenshots!