Project: Building a Simple REST API with Go and Gin-Gonic

Description:

The goal of this project is to develop a basic REST API using the Go programming language and the Gin-Gonic framework. The API should be capable of interacting with a database(e.g. PostgreSQL and SQLite). Additionally, the project should utilize containerization to develop the application within a containerized environment.

Requirements:

- **Programming Language**: The project must be implemented using the Go programming language.
- **Framework**: Utilize the Gin-Gonic framework for building the REST API.
- **API Functionality**: Implement basic CRUD (Create, Read, Update, Delete) operations for at least 3 different resources/entities. These entities should have relationships with each other, demonstrating interconnectedness within the database.
- **Database Integration**: The REST API should interact with a database (e.g., PostgreSQL, SQLite). Use appropriate database drivers and libraries for database connectivity. (GORM Recommended)
- **Containerization**: Develop both the REST API and the SQL service within a containerized environment using Docker. Provide necessary Dockerfiles and a docker-compose.yaml file for containerization and deployment.
- **Swagger Documentation**: Generate auto documentation for the API endpoints using Swagger.
- **Containerization Challenge**: Note that during the process of containerization using Docker Compose, you might encounter challenges or issues. Encourage them to explore and solve these problems as part of the learning process.
- **Version Control**: Upload the project to a version control platform like GitHub or GitLab. Provide the repository link to submit the assignment.

Resources

[Tour of Go](#)

[Practical Go Lessons Book](#)

[Docker Installation](#)

[OrbStack (Docker Desktop Alternative for MacOS (Optional))](#)

[Go Installation](#)

[Go Installation (Older Versions)](#)

[Gin-Gonic Documentation](#) : REST API Framework

[GORM Documentation](#) : ORM for Golang

[Docker Documentation](#) : Containerization

[Swagger](#) : Auto Documentation Tool

[Gin-Swagger Github](#) : Swagger for Gin-Gonic

[Swag](#) : Swagger documentation genarator for Golang