

Go Microservices I Assignment

Due Date: Thursday, 2nd June 2022 at 2359

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1. Objective

This assignment tests your understanding and ability to apply the key concepts learned in the **Go Microservices I** course, specifically:

- Building a microservice in Go
- Utilizing containers for deployment
- Accessing databases in Go

2. Introduction

For this assignment, you are required to build a REST API using the Go language. Your REST API would store information of courses. The details of the course must be stored in a database, such as the MySQL database server. You would also need to build a console application to allow users to communicate with the REST API.

3. Minimum Requirements

For this assignment, you need to implement the following components:

- A REST API that allows courses to be:
 - Created
 - Updated
 - Deleted
 - Retrieved
- The information of the course must be stored in a MySQL database
- A client application that allows user to:
 - Add course
 - Update course
 - Delete course
 - Retrieve course

4. Additional Features

In addition to the minimum requirements, the implementation of the following components will determine how well you score in this section:

- Deploying the MySQL database on a Docker container
- Securing the REST API using access keys; you might want to implement features that allow the access keys to be revoked, etc

In addition, bonus points will be awarded for adhering to the following guidelines:

- Security Considerations
- Proper documentation of your code
- Proper error handling, panic recovery
- Good design and use of data structures
- Idiomatic Go

5. Deliverables

You are required to submit the final solution using a zip file with the following name:

your_full_name_GoMS1.zip

through the **Assignment Submission** link in GoSchool.

The zip file should contain:

- A short write-up in Microsoft word document format that clearly indicates the following:
 - The components you have implemented in this assignment
 - A setup guide on how to deploy your application
 - A guide on how to test your application
- All the necessary source code and files needed to run your application

Submission Deadline: Thursday, 2nd June 2022, 2359

Note : Failure in obtaining 75% of the attendance, failure in submitting the deliverables on time, and also submitting work that is not done by himself, will cause penalties that will compromise the assessment, and thus fulfilment of the programme, which may result in removal from GoSchool. Possible follow-ups are discontinuation of monthly allowance for candidates under respective programs and/or repayment of previous allowance.