



Go Track Assignment



NGEE ANN
P O L Y T E C H N I C

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1. Objective

This assignment is to test your understanding and ability to apply the key concepts learnt.

2. Introduction

You are required to develop an existing simple prototype of an application in Go programming language in a Client-Server setup.

3. Basic Requirements

Your application must:

- Incorporate the use of Server and Client using a localhost (127.0.0.1) at port 5221.
- Use different **SIMPLE** selection pages of the application in *.gohtml* format.

Dental Appointment system

For Client:

Login Feature

1. New Patient Sign Up
 - a. User signs up with Username and Password.
 - b. Username and Password is stored in the server as a hash value.
2. Existing Returning Patient
 - a. User signs in with Username and Password.
 - b. Server compares using hash values.
3. Admin Sign In
 - a. Admin signs in with the following default credentials
 - i. Username: "Admin"
 - ii. Password: "Password"
 - b. Server compares using predetermined default credentials.

Customer Page

1. Search for available appointments
 - a. Server maintains and sends available appointments via either JSON or XML.
 - b. Templates will be used for front end with *.gohtml* extension.
2. Book appointment
 - a. User will have inputs in a Form to select and book appointments.
 - b. User selection will be sent to the Server and update the appointment slots.
3. Edit appointment details
 - a. User able to retrieve own booking and edit appointments
4. Edit Customer Info
 - a. User able to update new username and password.



Admin Page

1. Edit appointment details
 - a. Admin able to view all bookings and make changes via Form.
2. Delete Sessions
 - a. Admin able to view and delete sessions stored on Server.
3. Delete Users
 - a. Admin able to view and delete user accounts stored on Server.

For Server:

Login Process

1. Issue cookies to new logins.
 2. Store Session mapped to User information.
 3. Store User information.
- (Use only data structure for storage, do not use database.)

Venue Data Process

1. Store appointment availability.
 2. Store booked appointment details.
- (Use only data structure for storage, do not use database.)

4. Additional Features

In addition to the basic requirements outlined, the complexity, comprehensiveness and user friendliness of the application may be showcased if you wish.

Examples of issues to consider:

- User-friendliness, ease of use of Interface
- How appropriate were client-server implemented?
- How comprehensive is your program's error handling and handling of panics?
- How well your program supports concurrency?
- Good programming style, documentation.



5. Deliverables

Assignment submission will be via Politemall through the [Assignment Submission](#) link in Politemall.

The upload file shall be named **<Full Name>_Week05_Assignment.zip**

The zip file should contain where applicable

- All the necessary **files needed to run your application/game**.
- A short write-up in Microsoft word document format that clearly indicates info on:
 - Description of the client-server in general.
 - Description of at least **3** important main feature related to concepts.
 - Description of at least **3** error handling and concurrency mechanism incorporated.