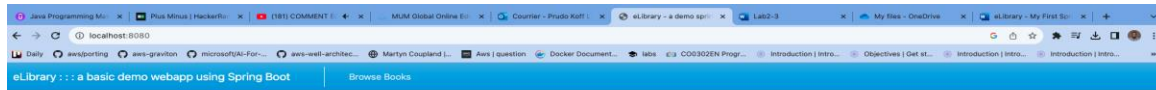


1-a)

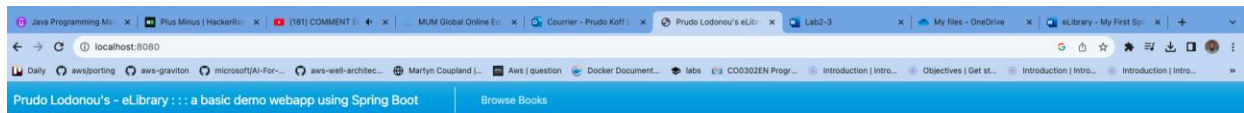


Welcome to the eLibrary Management system (eLMS)

To browse and manage the catalogue of Books, please first make sure to read the instructions and key points provided below. And then click the appropriate menu item, located on the menu-bar above.

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

2-b)



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- What is Spring ?

Spring is a secure, low-cost, and flexible framework that improves coding efficiency and reduces overall application development time through the efficient use of system resources

- **What is Spring Boot?**

Spring Boot is an open-source tool that makes it easier to use Java-based frameworks to create microservices and web apps

1. What is the relation between Spring platform and Spring Boot?

Spring Boot is basically an extension of the Spring framework, which eliminates the boilerplate configurations required for setting up a Spring application.

It takes an opinionated view of the Spring platform, which paves the way for a faster and more efficient development ecosystem.

2. What is the relation between Spring platform and Spring framework?

The Spring platform encompasses the Spring framework. The Spring framework is a core component of the Spring platform, which includes various tools and extensions to support enterprise application development

3. What is Dependency Injection and how is it done in the Spring platform/framework?

Dependency Injection is a design pattern used in the Spring framework to manage object dependencies. It's achieved by configuring and injecting dependencies (e.g., objects or values) into a class from an external source, typically done through XML or annotations in Spring.

4. What is Inversion of Control (IoC) and how is it related to Spring?

Inversion of Control (IoC) is a design principle where control over the flow of a program is shifted to a framework or container. In Spring, IoC is implemented through Dependency Injection, allowing the Spring container to manage object creation and wiring, reducing the need for manual configuration and enhancing modularity and testability.

Lab4-)

1- Functional Requirements:

User Authentication:

- The system should support user authentication for Dentists and Patients.
- Dentists and Patients must have separate accounts with unique usernames and passwords.

Dentist Registration:

- The Office Manager can register Dentists by entering their First Name, Last Name, Contact Phone Number, Email, and Specialization.
- Each Dentist should be assigned a unique ID number.

Patient Enrollment:

The Office Manager can enroll new Patients with details including First Name, Last Name, Contact Phone Number, Email, Mailing Address, and Date of Birth.

Appointment Scheduling:

- Patients can request appointments via phone or an online form on the ADS website.
- The Office Manager can view and schedule appointments for Patients, specifying date, time, and Dentist.

Confirmation emails are sent to Patients upon booking an appointment.

Dentist Appointment Management:

- Dentists can sign in and view a list of their appointments.
- Appointments should include Patient details and the scheduled date and time.

Surgery Information:

- The system must store information about each dental surgery, including name, location address, and telephone number.

Patient Appointment Management:

- Patients can sign in and view their upcoming appointments, including Dentist details.
- Patients can request appointment cancellations or changes.

Appointment Limitation:

- A Dentist cannot have more than 5 appointments in a given week.
- The system must prevent Patients with unpaid bills from requesting new appointments.

