**Workshop Assignment: Spring Boot Project**

**Objective:**  
Create a basic Spring Boot application that integrates Hibernate and uses an in-memory H2 database to perform CRUD operations.

**Task Requirements:**

1. **Create a Spring Boot Project:**
   * Use [Spring Initializr](https://start.spring.io/) to quickly bootstrap your Spring Boot project.
   * Include dependencies for:
     + Spring Web
     + Spring Data JPA
     + H2 Database
2. **Entity Design:**
   * Create an entity class called Student with the following fields:
     + id (Integer, Primary Key, Auto-generated)
     + name (String, not null)
     + age (Integer, not null)
     + email (String, unique)
3. **Database Configuration:**
   * Configure the application to use the H2 in-memory database.
   * Use Hibernate to automatically create tables based on the Student entity.
4. **Repository Layer:**
   * Create a StudentRepository interface to perform database operations.
5. **Controller Layer:**
   * Implement a REST controller (StudentController) with endpoints for:
     + Creating a new student.
     + Fetching all students.
     + Fetching a student by ID.
     + Updating a student's details.
     + Deleting a student by ID.

**Tip:**

* Use **Spring Initializr** to simplify project setup and include the necessary dependencies. It saves time and ensures the correct configuration for a Spring Boot application.

**Submission Deadline:**

* **Date:** November 29, 2024
* **Time:** 11:59 PM

**Submission Guidelines:**

* Submit the link to your GitHub repository containing the complete project.