EXERCISE 9

//BookController Class

package com.example.LibraryManagement.controller;  
import com.example.LibraryManagement.Book;  
import com.example.LibraryManagement.service.BookService;  
import org.springframework.beans.factory.annotation.Autowired;  
import org.springframework.web.bind.annotation.\*;  
import java.util.List;  
@RestController  
@RequestMapping("/books")  
public class BookController{  
 @Autowired  
 private BookService bookService;  
 @GetMapping  
 public List<Book> getAllBooks() {  
 return bookService.getAllBooks();  
 }  
 @PostMapping  
 public Book addBook(@RequestBody Book book) {  
 return bookService.addBook(book);  
 }  
  
 @PutMapping("/{id}")  
 public Book updateBook(@PathVariable int id, @RequestBody Book book) {  
 return bookService.updateBook(id, book);  
 }  
}

//BookService

package com.example.LibraryManagement.service;  
  
import com.example.LibraryManagement.repository.BookRepository;  
import org.springframework.beans.factory.annotation.Autowired;  
import org.springframework.stereotype.Service;  
import com.example.LibraryManagement.Book;  
import java.util.List;  
  
@Service  
public class BookService {  
 @Autowired  
 private BookRepository bookRepository;  
 public List<Book> getAllBooks(){  
 return bookRepository.findAll();  
 }  
 public Book addBook(Book book) {  
 return bookRepository.save(book);  
 }  
 public Book updateBook(int id, Book updatedBook)  
 {  
 List<Book> books = bookRepository.findAll();  
  
 for (Book book : books) {  
 if (book.getId()==(id)) {  
 book.setTitle(updatedBook.getTitle());  
 return bookRepository.save(book);  
 }  
 }  
 return null;  
 }  
  
}

//Book class

package com.example.LibraryManagement;  
  
import jakarta.persistence.Entity;  
import jakarta.persistence.GeneratedValue;  
import jakarta.persistence.GenerationType;  
import jakarta.persistence.Id;  
  
@Entity  
public class Book {  
 @Id  
 @GeneratedValue(strategy = GenerationType.*IDENTITY*)  
 private int id;  
 private String title;  
  
 public String getTitle() {  
 return title;  
 }  
  
 public void setTitle(String title) {  
 this.title = title;  
 }  
  
  
 public int getId() {  
 return id;  
 }  
  
 public void setId(int id) {  
 this.id = id;  
 }  
  
}

//Bookrepository Class

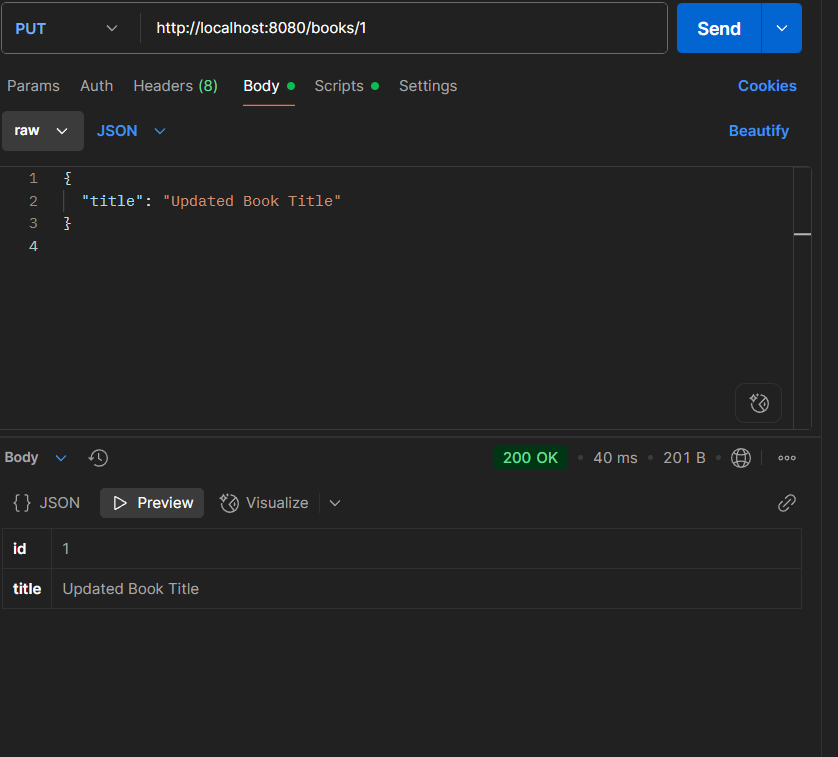
package com.example.LibraryManagement.repository;  
import com.example.LibraryManagement.Book;  
import org.springframework.data.jpa.repository.JpaRepository;  
import org.springframework.stereotype.Repository;  
@Repository  
public interface BookRepository extends JpaRepository<Book,Integer> {  
}

//Library Management Class

package com.example.LibraryManagement;  
  
import org.springframework.boot.SpringApplication;  
import org.springframework.boot.autoconfigure.SpringBootApplication;  
  
@SpringBootApplication  
public class LibraryManagementApplication {  
  
 public static void main(String[] args) {  
 SpringApplication.*run*(LibraryManagementApplication.class, args);  
 }  
  
}

//Application properties

spring.datasource.url=jdbc:h2:mem:testdb  
spring.datasource.username=sa  
spring.datasource.password=  
spring.h2.console.enabled=true  
spring.jpa.hibernate.ddl-auto=update  
spring.jpa.show-sql=true  
spring.jpa.database-platform=org.hibernate.dialect.H2Dialect

//output

