**ASSIGNMENT**

**NAME: ANDE LAKSHMI SRI GOWRI**

**CODE:**

**PRODUCT MODEL:**

package com.ass.inventory.model;

import jakarta.persistence.\*;

import lombok.\*;

@Entity

@Data

@NoArgsConstructor

@AllArgsConstructor

public class Product {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private Long id;

private String name;

private String category;

private Integer quantity;

private Double price;

}

**PRODUCT REPOSITORY:**

package com.ass.inventory.repository;

import com.ass.inventory.model.Product;

import org.springframework.data.jpa.repository.JpaRepository;

public interface ProductRepository extends JpaRepository<Product, Long> {

}

**PRODUCT SERVICE**:

package com.ass.inventory.service;

import com.ass.inventory.model.Product;

import com.ass.inventory.repository.ProductRepository;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.stereotype.Service;

import java.util.List;

@Service

public class ProductService {

@Autowired

private ProductRepository repository;

public List<Product> getAll() {

return repository.findAll();

}

public Product getById(Long id) {

return repository.findById(id).orElse(null);

}

public Product save(Product product) {

return repository.save(product);

}

public Product update(Long id, Product product) {

Product existing = repository.findById(id).orElse(null);

if (existing != null) {

existing.setName(product.getName());

existing.setCategory(product.getCategory());

existing.setQuantity(product.getQuantity());

existing.setPrice(product.getPrice());

return repository.save(existing);

}

return null;

}

public void delete(Long id) {

repository.deleteById(id);

}

}

**PRODUCT CONTROLLER**:

package com.ass.inventory.controller;

import com.ass.inventory.model.Product;

import com.ass.inventory.service.ProductService;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.http.ResponseEntity;

import org.springframework.web.bind.annotation.\*;

import java.util.List;

@RestController

@RequestMapping("/api/products")

public class ProductController {

@Autowired

private ProductService service;

@GetMapping

public List<Product> getAll() {

return service.getAll();

}

@GetMapping("/{id}")

public ResponseEntity<Product> getById(@PathVariable Long id) {

Product product = service.getById(id);

return product != null ? ResponseEntity.ok(product) :ResponseEntity.notFound().build();

}

@PostMapping

public Product create(@RequestBody Product product) {

return service.save(product);

}

@PutMapping("/{id}")

public ResponseEntity<Product> update(@PathVariable Long id, @RequestBody Product product) {

Product updated = service.update(id, product);

return updated != null ? ResponseEntity.ok(updated) : ResponseEntity.notFound().build();

}

@DeleteMapping("/{id}")

public ResponseEntity<Void> delete(@PathVariable Long id) {

service.delete(id);

return ResponseEntity.noContent().build();

}

}

**IN MAIN CLASS:**

package com.ass.inventory;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication

public class ProductInventoryApplication {

public static void main(String[] args) {

SpringApplication.run(ProductInventoryApplication.class, args);

}

}

**OUTPUTS:**

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A white screen with black text

AI-generated content may be incorrect.

A computer code with text

AI-generated content may be incorrect.