**Spring Boot CRUD API Using Project Structure**

**\*\*\*\*\*\*\*\*\*\*\*\* Controller \*\*\*\*\*\*\*\*\*\*\*\***

**package com.TheKiranAcademyGopal.TKA.Gopal.Online.Education.System.Controller;**

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

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

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

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

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

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

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

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

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

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

**import com.TheKiranAcademyGopal.TKA.Gopal.Online.Education.System.Model.Order;**

**import com.TheKiranAcademyGopal.TKA.Gopal.Online.Education.System.Service.IOrderService;**

**@RestController**

**@RequestMapping(path = "orders")**

**public class OrderController {**

**@Autowired**

**private IOrderService orderService;**

**@PostMapping**

**public @ResponseBody Order addOrder(@RequestBody Order order) {**

**Order saveOrder = orderService.addOrder(order);**

**return saveOrder;**

**}**

**@PutMapping**

**public @ResponseBody Order updateOrder(@RequestBody Order order) {**

**Order updatedOrder = orderService.updateOrder(order);**

**return updatedOrder;**

**}**

**@GetMapping(path = "/{id}")**

**public @ResponseBody Order getOrder(@PathVariable Integer id) {**

**return orderService.getOrder(id);**

**}**

**@DeleteMapping(path = "/{id}")**

**public @ResponseBody String deleteOrder(@PathVariable Integer id) {**

**return orderService.deleteOrder(id);**

**}**

**public IOrderService getOrderService() {**

**return orderService;**

**}**

**public void setOrderService(IOrderService orderService) {**

**this.orderService = orderService;**

**}**

**}**

**\*\*\*\*\*\*\*\*\*\*\*\* Model\*\*\*\*\*\*\*\*\*\*\*\***

**package com.TheKiranAcademyGopal.TKA.Gopal.Online.Education.System.Model;**

**import jakarta.persistence.Entity;**

**import jakarta.persistence.GeneratedValue;**

**import jakarta.persistence.GenerationType;**

**import jakarta.persistence.Id;**

**@Entity(name = "order-info")**

**public class Order {**

**@Id**

**@GeneratedValue(strategy = GenerationType.AUTO)**

**private Integer id;**

**private String name;**

**public Order() {**

**super();**

**// TODO Auto-generated constructor stub**

**}**

**public Order(int id, String name) {**

**super();**

**this.id = id;**

**this.name = name;**

**}**

**public int getId() {**

**return id;**

**}**

**public void setId(int id) {**

**this.id = id;**

**}**

**public String getName() {**

**return name;**

**}**

**public void setName(String name) {**

**this.name = name;**

**}**

**@Override**

**public String toString() {**

**return "Order [id=" + id + ", name=" + name + "]";**

**}**

**}**

**\*\*\*\*\*\*\*\*\*\*\*\* Repository \*\*\*\*\*\*\*\*\*\*\*\***

**package com.TheKiranAcademyGopal.TKA.Gopal.Online.Education.System.Repostory;**

**import org.springframework.data.repository.CrudRepository;**

**import org.springframework.stereotype.Repository;**

**import com.TheKiranAcademyGopal.TKA.Gopal.Online.Education.System.Model.Order;**

**@Repository**

**public interface OrderRepostory extends CrudRepository<Order, Integer> {**

**}**

**\*\*\*\*\*\*\*\*\*\*\*\* Repository \*\*\*\*\*\*\*\*\*\*\*\***

**package com.TheKiranAcademyGopal.TKA.Gopal.Online.Education.System.Service;**

**import com.TheKiranAcademyGopal.TKA.Gopal.Online.Education.System.Model.Order;**

**public interface IOrderService {**

**public Order addOrder(Order order);**

**public Order getOrder(Integer id);**

**public Order updateOrder(Order order);**

**public String deleteOrder(Integer id);**

**}**

**\*\*\*\*\*\*\*\*\*\*\*\* Service\*\*\*\*\*\*\*\*\*\*\*\***

**package com.TheKiranAcademyGopal.TKA.Gopal.Online.Education.System.Service;**

**import java.util.Optional;**

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

**import org.springframework.stereotype.Service;**

**import com.TheKiranAcademyGopal.TKA.Gopal.Online.Education.System.Model.Order;**

**import com.TheKiranAcademyGopal.TKA.Gopal.Online.Education.System.Repostory.OrderRepostory;**

**@Service**

**public class OrderService implements IOrderService{**

**@Autowired**

**private OrderRepostory orderRepostory;**

**public OrderRepostory getOrderRepostory() {**

**return orderRepostory;**

**}**

**public void setOrderRepostory(OrderRepostory orderRepostory) {**

**this.orderRepostory = orderRepostory;**

**}**

**@Override**

**public Order addOrder(Order order) {**

**Order savedOrder=orderRepostory.save(order);**

**return savedOrder;**

**}**

**@Override**

**public Order getOrder(Integer id) {**

**Optional<Order> orderOptional=orderRepostory.findById(id);**

**return orderOptional.orElse(null);**

**}**

**@Override**

**public Order updateOrder(Order order) {**

**Order orderFromDb = orderRepostory.findById(order.getId()).orElse(null);**

**if (orderFromDb==null) {**

**throw new RuntimeException("No such order Exisit");**

**}**

**orderFromDb.setName(order.getName());**

**return orderRepostory.save(orderFromDb);**

**}**

**@Override**

**public String deleteOrder(Integer id) {**

**orderRepostory.deleteById(id);**

**return "Deleted...";**

**}**

**}**