

# 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...";
    }
}
```