**1) insert a new record inside the product table**

Product product = new Product();

product.setName("");

product.setManufacturer("");

productRepository.save(product);

**2) update an existing record in the product table**

Product product = productRepository.findOne(1L);

product.setName("");

product.setManufacturer("");

productRepository.save(product);

**3) delete an existing record from the product table**

Product product = productRepository.findOne(1L);

productRepository.delete(product);

**4) execute an query and return the manufacturer list for a given product name** List<Product> products = productRepository.findByName("");

for (Product product : products) {

System.out.println(product.getManufacturer());

}

**service**

package jp.mitsuruog.springboot.sample.Customer.service;

import jp.mitsuruog.springboot.sample.Customer.domain.Customer;

import jp.mitsuruog.springboot.sample.Customer.repository.CustomerRepository; import org.springframework.beans.factory.annotation.Autowired; import org.springframework.data.domain.Page;

import org.springframework.data.domain.Pageable;

import org.springframework.stereotype.Service;

import java.util.List;

@Service

public class CustomerService {

@Autowired

CustomerRepository customerRepository;

public Page<Customer> findAll(Pageable pageable) { return customerRepository.findAllOrderByName(pageable); }

public Customer findById(Integer id) {

return customerRepository.findOne(id);

}

public Customer create(Customer customer) {

return customerRepository.save(customer); }

public Customer update(Customer customer) { return customerRepository.save(customer); }

public void delete(Integer id) {

customerRepository.delete(id);

}

}

**model**

import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication

public class DemoApplication {

public static void main(String[] args) {

SpringApplication.run(DemoApplication.class, args); }

}

**Dao**

public class UserDao implements Dao<User> {

private List<User> users = new ArrayList<>();

public UserDao() {

users.add(new User("John", "john@domain.com")); users.add(new User("Susan", "susan@domain.com")); }

@Override

public Optional<User> get(long id) {

return Optional.ofNullable(users.get((int) id));

}

@Override

public List<User> getAll() {

return users;

}

@Override

**RestController**

package es.macero.dev;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication; import org.springframework.context.annotation.Bean;

import springfox.documentation.builders.PathSelectors; import springfox.documentation.builders.RequestHandlerSelectors; import springfox.documentation.spi.DocumentationType; import springfox.documentation.spring.web.plugins.Docket; import springfox.documentation.swagger2.annotations.EnableSwagger2;

@SpringBootApplication

@EnableSwagger2

public class SpringBootRestcontrollerExampleApplication {

public static void main(String[] args) {

SpringApplication.run(SpringBootRestcontrollerExampleApplication.class, args);

}

@Bean

public Docket api() {

return new Docket(DocumentationType.SWAGGER\_2)

.select()

.apis(RequestHandlerSelectors.any())

.paths(PathSelectors.regex("/getCustomersDetails"))

.build();

}

}

**Pom.xml**

<project xmlns="https://maven.apache.org/POM/4.0.0"

xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"

xsi:schemaLocation="https://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4\_0\_0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>com.customer</groupId>

<artifactId>customer-ws-spring-boot</artifactId>

<version>2.3.0</version>

<name>Spring Boot</name>

<description>web services using Spring Boot.</description>

<parent>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-parent</artifactId>

<version>2.1.1.RELEASE</version>

</parent>

<properties>

<project.build.sourceEncoding>UTF-8</project.build.sourceEncoding> <java.version>11</java.version>

</properties>

<dependencies>

<dependency>

<groupId>org.springframework.boot</groupId> <artifactId>spring-boot-starter-web</artifactId> </dependency>

<dependency>

<groupId>org.springframework.boot</groupId> <artifactId>spring-boot-starter-actuator</artifactId> </dependency>

<dependency>

<groupId>org.springframework.boot</groupId> <artifactId>spring-boot-starter-data-jpa</artifactId> </dependency>

<!-- Dependencies for Unit Testing -->

<dependency>

<groupId>org.springframework.boot</groupId> <artifactId>spring-boot-starter-test</artifactId> <scope>test</scope>

</dependency>

<dependency>

<groupId>org.springframework.security</groupId> <artifactId>spring-security-test</artifactId>

<scope>test</scope>

</dependency>

<dependency>

<groupId>com.google.guava</groupId> <artifactId>guava</artifactId>

<version>27.0.1-jre</version>

<scope>test</scope>

</dependency>

<build>

<plugins>

<plugin>

<groupId>org.springframework.boot</groupId> <artifactId>spring-boot-maven-plugin</artifactId> <configuration>

<executable>true</executable>

</configuration>

<executions>

<execution>

<goals>

<goal>build-info</goal>

</goals>

</execution>

</executions>

</plugin>

</plugins>

</build>

</project>

**Product Table:**

CREATE TABLE product (

id int NOT NULL AUTO\_INCREMENT, name varchar(255) NOT NULL, price decimal(10,2) NOT NULL, PRIMARY KEY (id)

);

**Customer Table:**

CREATE TABLE customer (

id int NOT NULL AUTO\_INCREMENT, name varchar(255) NOT NULL, address varchar(255) NOT NULL, PRIMARY KEY (id)

);

**Manufacturer Table:**

CREATE TABLE manufacturer (

id int NOT NULL AUTO\_INCREMENT,

name varchar(255) NOT NULL,

PRIMARY KEY (id)

);

**class table:**

CREATE TABLE `class` (

`class\_id` int(11) NOT NULL AUTO\_INCREMENT, `class\_name` varchar(255) NOT NULL, `class\_code` varchar(255) NOT NULL, `class\_description` text NOT NULL,

`class\_size` int(11) NOT NULL,

`class\_room` varchar(255) NOT NULL, `class\_time` time NOT NULL,

`class\_date` date NOT NULL,

PRIMARY KEY (`class\_id`)

)