

1) insert a new record inside product table

```
Product product = new Product();
```

```
product.setName("");
```

```
product.setManufacturer("");
```

```
productRepository.save(product);
```

2) update an existing record in product table

```
Product product = productRepository.findOne(1L);
```

```
product.setName("");
```

```
product.setManufacturer("");
```

```
productRepository.save(product);
```

3) delete an existing record from 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`)  
)
```