

SPRING_BOOT

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`)  
)
```

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.macro.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>
```