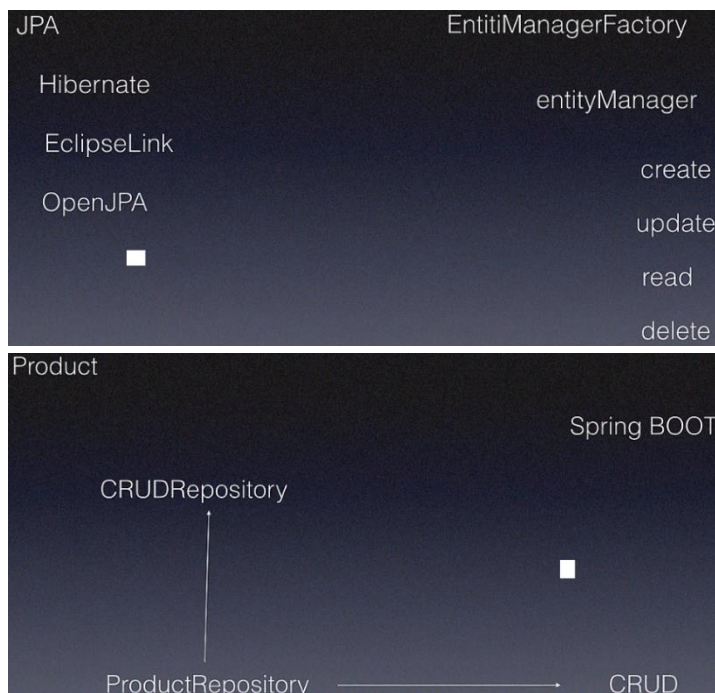
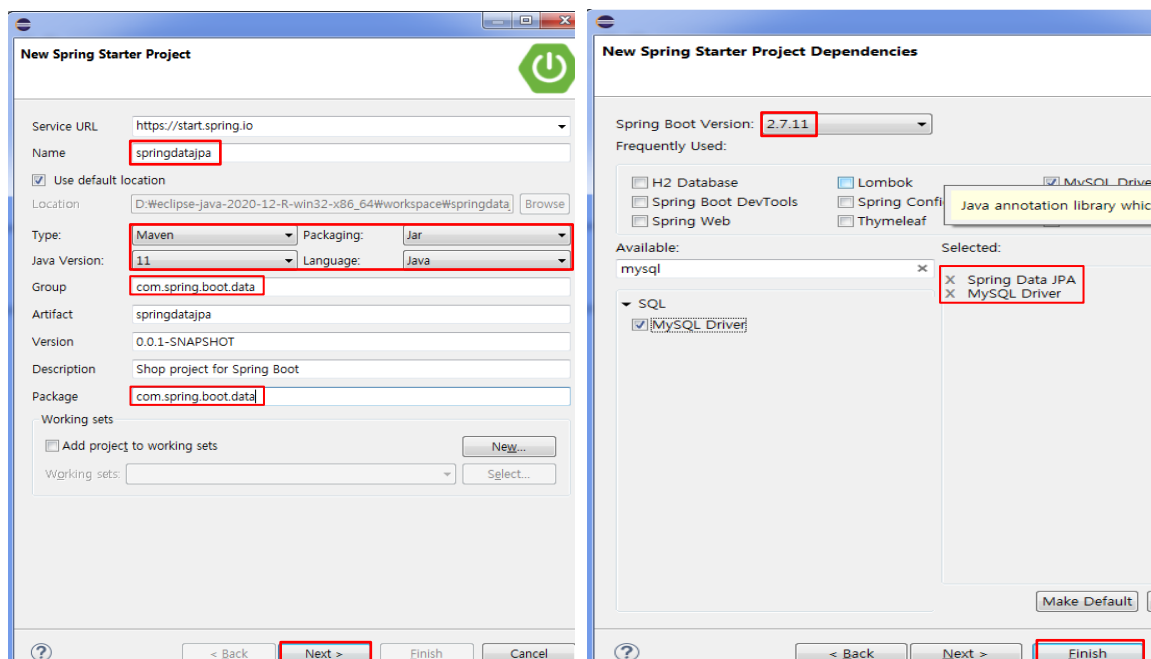


1. 소개

- JPA: **J**ava **P**ersistence **A**PI
- 오브젝트를 관계형 데이터베이스 테이블과 매핑(ORM(**O**bject **R**elational **M**apping))하기 위해, 즉, 오브젝트를 데이터베이스에 저장하기 위해 오라클에서 나온 표준
- 데이터베이스 행(rows)을 오브젝트로 변환
- 객체 지향 애플리케이션에서 객체를 처리
- JPA 표준 구현체 또는 제공자: **Hibernate**, EclipseLink, OpenJPA 등등
- JPA 표준에서 제공하는 인터페이스: EntityManagerFactory, entityManager



2. 스프링 데이터 JPA 프로젝트 만들기



springdatajpa [boot]

- src/main/java
 - com.spring.boot.data
 - SpringdatajpaApplication.java
- src/main/resources
 - application.properties
- src/test/java
 - com.spring.boot.data
 - SpringdatajpaApplicationTests.java
- JRE System Library [JavaSE-11]
- Maven Dependencies
- src
 - target
 - HELP.md
 - mvnw
 - mvnw.cmd
- pom.xml

springdatajpa/pom.xml

```

1 <?xml version="1.0" encoding="UTF-8"?>
2 <project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://
3   xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://
4     <modelVersion>4.0.0</modelVersion>
5     <parent>
6       <groupId>org.springframework.boot</groupId>
7       <artifactId>spring-boot-starter-parent</artifactId>
8       <version>2.7.11</version>
9       <relativePath/> <!-- lookup parent from repository -->
10    </parent>
11    <groupId>com.spring.boot.data</groupId>
12    <artifactId>springdatajpa</artifactId>
13    <version>0.0.1-SNAPSHOT</version>
14    <name>springdatajpa</name>
15    <description>Shop project for Spring Boot</description>
16    <properties>
17      <java.version>11</java.version>
18    </properties>
19    <dependencies>
20      <dependency>
21        <groupId>org.springframework.boot</groupId>
22        <artifactId>spring-boot-starter-data-jpa</artifactId>
23      </dependency>
24
25      <dependency>
26        <groupId>com.mysql</groupId>
27        <artifactId>mysql-connector-j</artifactId>
28        <scope>runtime</scope>
29      </dependency>
30      <dependency>
31        <groupId>org.springframework.boot</groupId>
32        <artifactId>spring-boot-starter-test</artifactId>
33        <scope>test</scope>
34      </dependency>
35    </dependencies>
36
37    <build>
38      <plugins>
39        <plugin>
40          <groupId>org.springframework.boot</groupId>
41          <artifactId>spring-boot-maven-plugin</artifactId>
42        </plugin>
43      </plugins>
44    </build>
45
46  </project>

```

3. 엔티티(Entity) 만들기
4. 레포지토리(Repository) 만들기
5. 데이터소스(DataSource) 설정하기
6. Create 기능 테스트
7. Read 기능 테스트
8. Update와 전체 읽기 테스트