

Query for JPA



SPRING-JPA (Query)

5 .

- SQL(Native)
- Query Function
- JPQL
- Criteria Query
- Query DSL

/JPQL

QueryDSL Criteria Query .

Code Link : http://git.webnori.com/projects/WEBF/repos/spring_jpa/browse/src/test/java/com/example/demo/jpa/JpaDSL.java

QueryDSL

SPRING-JPA QueryDSL

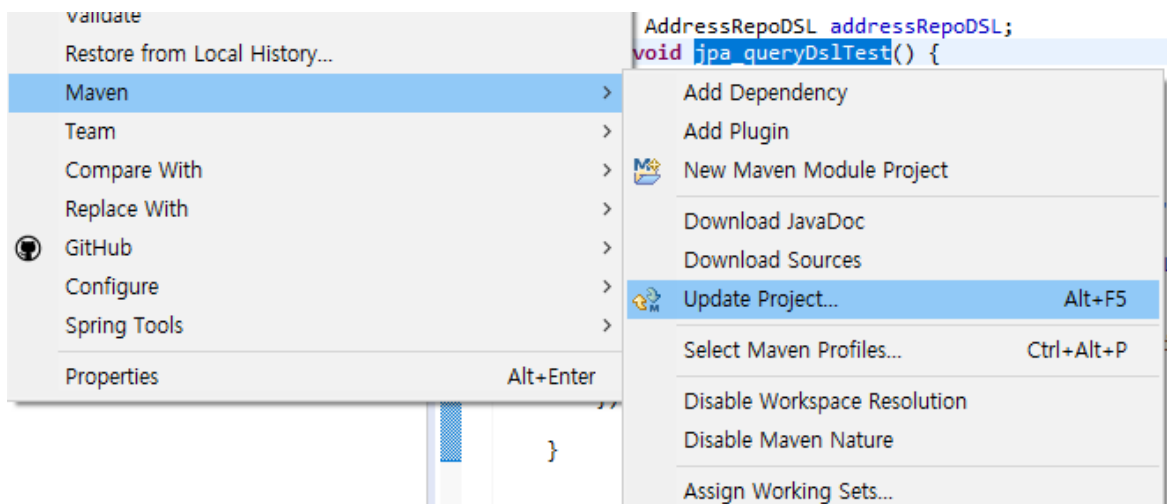
- Entity QDomain pom.xml
- Repository , QueryDslPredicateExecutor
- Builder , (findAll())

Spring-Boot-Starter QueryDSL pom.xml

```

<parent>
  <groupId>org.springframework.boot</groupId>
  <artifactId>spring-boot-starter-parent</artifactId>
  <version>1.5.9.RELEASE</version>
  <relativePath/> <!-- lookup parent from repository -->
</parent>
.....
<dependencies>
.....
  <dependency>
    <groupId>com.querydsl</groupId>
    <artifactId>querydsl-core</artifactId>
    <version>4.1.3</version>
  </dependency>
  <dependency>
    <groupId>com.querydsl</groupId>
    <artifactId>querydsl-jpa</artifactId>
    <version>4.1.3</version>
  </dependency>
.....
</dependencies>
.....
<build>
  <plugins>
    <!-- MUST add to use generate QueryDSL -->
    <plugin>
      <groupId>com.mysema.maven</groupId>
      <artifactId>apt-maven-plugin</artifactId>
      <version>1.1.3</version>
      <executions>
        <execution>
          <phase>generate-sources</phase>
          <goals>
            <goal>process</goal>
          </goals>
          <configuration>
            <!-- Specifies the directory in which the query types are generated -->
            <outputDirectory>target/generated-sources/querydsl</outputDirectory>
            <!-- States that the APT code generator should look for JPA annotations -->
            <processor>com.querydsl.apt.jpa.JPAAnnotationProcessor</processor>
          </configuration>
        </execution>
      </executions>
      <dependencies>
        <dependency>
          <groupId>com.querydsl</groupId>
          <artifactId>querydsl-apt</artifactId>
          <version>4.1.3</version>
        </dependency>
      </dependencies>
    </plugin>
  </plugins>
</build>
.....

```



pom.xml, JAVA_HOME/PATH JDK

Maven-Update Project .

QueryDSL Repository

JPA Repository QueryDslPredicateExecutor .

Table Entity . , pom.xml QueryDSL

JPA Entity QueryDSL QAddress . (target/generated-sources/querydsl)

Address Entity Q , QueryDSL .

```
package com.example.demo.data;

import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.data.querydsl.QueryDslPredicateExecutor;

public interface AddressRepoDSL extends JpaRepository<Address, Long>,
QueryDslPredicateExecutor<Address>{

}

```

QueryDSL

```
@Autowired
private AddressRepoDSL addressRepoDSL;
public void jpa_queryDslTest() {

    QAddress userAddress = QAddress.address1;
    BooleanBuilder builder = new BooleanBuilder();

    builder.and(userAddress.name.eq("1") )
            .and(userAddress.address.like("%" + " " + "%"));

    Iterable<Address> addressList = addressRepoDSL.findAll(builder);
    addressList.forEach( item -> {
        String itemString = String.format("%d%s %s %s %s %s",item.getId(),item.getName(),
            item.getPhoneNbr(), item.getSex(),item.getAddress(),item.getAge());
        System.out.println(itemString);
    });
}

```

```
builder.and(userAddress.name.eq("1") );
builder.and(userAddress.address.like("%" + " " + "%"));

```

QueryDSL . TypeSafe

. null Optional

if .

.. if sql typesafe

sql syntax .

SQL , (null) SQL CaseBy .

- Select * from address where name='1'
- Select * from address
- Select * from address where name='1' and address like '%%'

null ,

DB null (=null)/(isnull)

.

QueryDSL ,

/ TypeSafe SQL .()

3 SQL

. null

Java Optional null ...

Rest API .

```
if(name!=null) builder.and(userAddress.name.eq("1") );
if(address!=null) builder.and(userAddress.address.like("%" + " " +"%"));
```

CriteriaQuery
