

물고 JPA로 가조



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우리는 2달 전보다 나아졌...나요? (JDBC -> JPA)

sukyoujin / --Project--NaverStockNews

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mini project 03. 2019/07/30

mvc-pattern

crud

jdbc

erd

sql

jsoup

lombok

🕒 3 commits

🔗 1 branch

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Branch: master

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sukyoujin Update README.md



Latest commit ae5c6c5 8 days ago



project003.NaverStockNews

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시연

KEY LEARNING

1. BigDecimal / precision

```
@Data
@Entity
public class Stock {
    @Id
    @Column(length = 30, nullable = false)
    private String name;
    @Column(precision = 7, nullable = false)
    private BigDecimal price;
    @Column(length = 20)
    private String netUpDown;           cf. scale
    @Column(precision = 6)              (소수점 자리)
    private BigDecimal net;             ex. scale = 2
    @Column(length = 20)
    private String upDown;
    @Column(precision = 8, nullable = false)
    private BigDecimal marketCap;
```

```
tmp = new Stock();
tmp.setName(getStringFromEl(el, "td:nth-c
tmp.setPrice(new BigDecimal(getIntFromEl(
tmp.setNetUpDown(getStringFromEl(el, "td:
tmp.setNet(new BigDecimal(getIntFromEl(el
tmp.setUpDown(getStringFromEl(el, "td:nth
tmp.setMarketCap(new BigDecimal(getIntFro
```

2. JPQL

```
String jpql = "select s from StockNews s where stock_name = :v order by pubDate desc";
tx.begin();
em.flush();
em.clear();
try {
    list = em.createQuery(jpql, StockNews.class)
        .setParameter("v", name)
        .getResultList();
}
```

cf. 이름기준바인딩/위치기준바인딩

두 가지 방식의 기능적 차이는 없으므로, 편한대로 사용하시면 됩니다.

단, 동적으로 추가되는 데이터는 꼭 바인딩을 해서 사용해야 합니다.

```
String jpql = "SELECT b FROM Book b WHERE title = " + param1;
```

이런 식으로 데이터를 직접 바인딩 할 경우, **SQL Injection의 위험이 있으니 꼭 setParameter() 메서드를 호출하여 동적으로 데이터를 바인딩을 해야 합니다.**

3. DBUtil

```
public class DBUtil {  
    private static EntityManagerFactory factory = null;  
  
    private DBUtil() {};  
  
    public static EntityManagerFactory getFactory() {  
        return factory;  
    }  
  
    public static void runFactory() {  
        factory = Persistence.createEntityManagerFactory("encore");  
    }  
  
    public static void closeFactory() {  
        factory.close();  
    }  
}
```

3. DBUtil

// Factory 실행

DBUtil.runFactory();

try {

// 크롤링

controller.crawling();

// 유저 전체 검색

~~System.out.println("== 전체 검색 ==");~~

~~controller.getNewsUserList();~~

~~~~

} finally {

// Factory 반환

DBUtil.closeFactory();

}

EntityManagerFactory factory = DBUtil.getFactory();

EntityManager em = factory.createEntityManager();

EntityTransaction tx = em.getTransaction();





## 4. MySQL



MySQL아, 나도 순정이 있다!  
네가 이런 식으로 내 순정을 짓밟으면은  
따 그때는 컴맹이 되는거야!  
내가 너를 컴맹처럼 언인스톨이라도 하랴?

## 4. MySQL

<설치> <https://dev.mysql.com/downloads/windows/installer/5.7.html>

**Generally Available (GA) Releases**

### MySQL Installer 5.7.27

Select Version:  
5.7.27


Select Operating System:  
Microsoft Windows

Looking for the latest GA version?

|                                                                                             |        |        |                          |
|---------------------------------------------------------------------------------------------|--------|--------|--------------------------|
| <b>Windows (x86, 32-bit), MSI Installer</b><br>(mysql-installer-web-community-5.7.27.0.msi) | 5.7.27 | 18.5M  | <a href="#">Download</a> |
| <b>Windows (x86, 32-bit), MSI Installer</b><br>(mysql-installer-community-5.7.27.0.msi)     | 5.7.27 | 424.6M | <a href="#">Download</a> |

MD5: 12cdd52e35d488c3860c0ed0da8799b2 | [Signature](#)

MD5: ec83269caea3bd1c44f59bc1513382bb | [Signature](#)

 We suggest that you use the [MD5 checksums](#) and [GnuPG signatures](#) to verify the integrity of the packages you download.

## 4. MySQL

<설정> pom.xml

```
<dependency>
  <groupId>mysql</groupId>
  <artifactId>mysql-connector-java</artifactId>
  <version>5.1.48</version>
</dependency>
```

persistence.xml

```
<property name="javax.persistence.jdbc.driver" value="com.mysql.jdbc.Driver" />
<property name="javax.persistence.jdbc.url"
value="jdbc:mysql://localhost:3306/stock?useUnicode=true&characterEncoding=utf8" />
<property name="javax.persistence.jdbc.user" value="root" />
<property name="javax.persistence.jdbc.password" value="root" />
<property name="hibernate.dialect" value="org.hibernate.dialect.MySQL5Dialect" />
```


port num

database name

encoding 설정

root 계정 비밀번호

## 4. MySQL

A man with dark hair, wearing a blue suit, a dark blue shirt, and a patterned tie, stands in a workshop-like setting. He has a serious expression. Two speech bubbles are overlaid on the image. The background shows some equipment and a blue wall.

Read도 안 돼...  
Create도 안 돼...

이 안에  
**UTF-8 인코딩 문제**가 있다.  
이게 내 결론이다.

## 4. MySQL

- Database 생성 및 인코딩 확인
  - C:\Program Files\MySQL\MySQL Server 5.7\bin + cmd
  - mysql -u *ID* -p
  - show databases
  - create database *DB*
  - use *DB*
  - show variables like 'c%';

## 4. MySQL

```
mysql> show variables like 'c%';
```

| Variable_name            | Value                                                   |
|--------------------------|---------------------------------------------------------|
| character_set_client     | euckr                                                   |
| character_set_connection | euckr                                                   |
| character_set_database   | utf8                                                    |
| character_set_filesystem | binary                                                  |
| character_set_results    | euckr                                                   |
| character_set_server     | utf8                                                    |
| character_set_system     | utf8                                                    |
| character_sets_dir       | C:\Program Files\MySQL\MySQL Server 5.7\share\charsets\ |
| check_proxy_users        | OFF                                                     |
| collation_connection     | euckr_korean_ci                                         |
| collation_database       | utf8_general_ci                                         |
| collation_server         | utf8_general_ci                                         |
| completion_type          | NO_CHAIN                                                |
| concurrent_insert        | AUTO                                                    |
| connect_timeout          | 10                                                      |
| core_file                | OFF                                                     |

- set session collation\_connection=utf8\_unicode\_ci;
- set session character\_set\_database=utf8;

(이 외에도 latin이나 swedish 들어가 있는 건 다 수정!)

## 4. MySQL

C:\ProgramData\MySQL\MySQL Server 5.7\my.ini

```
[mysql]  
no-beep
```

```
default-character-set=utf8
```

```
# The default character set that will be used when a new schema or table is  
# created and no character set is defined
```

```
character-set-server=utf8
```



## 5. TelegramBot

Front단을 구현할  
시간이 없습니다!

TelegramBot은  
무너졌냐?





# 5. TelegramBot

BotFather (Telegram)



**BotFather**

I can help you create and manage Telegram bots. If you're new to the Bot API, please [see the manual](#).

You can control me by sending these commands:

`/newbot` - create a new bot  
`/mybots` - edit your bots **[beta]**



**BotFather**

Done! Congratulations on your new bot. You will find it at [t.me/StockNewsAlarmBot](https://t.me/StockNewsAlarmBot) You can now add a description, about section and profile picture for your bot, see [/help](#) for a list of commands. By the way, when you've finished creating your cool bot, ping our Bot Support if you want a better username for it. Just make sure the bot is fully operational before you do this.

Use this token to access the HTTP API:

87[REDACTED]4:AAH[REDACTED]Mqsfo

Keep your token **secure** and **store it safely**, it can be used by anyone to control your bot.

For a description of the Bot API, see this page:

<https://core.telegram.org/bots/api>

Bot name

token

# 5. TelegramBot

Java Code

참고 : <https://kosate.tistory.com/185>





```
public class TelegramBot {  
    public static void main(String[] args) {  
        TelegramBotsApi api = new TelegramBotsApi();  
        try {  
            ApiContextInitializer.init();  
            api.registerBot(new BotHandler());  
        } catch (TelegramApiException e) {  
            e.printStackTrace();  
        }  
    }  
}
```

---

# 5. TelegramBot

Java Code

참고 : <https://kosate.tistory.com/185>

```
public class BotHandler extends TelegramLongPollingBot {  
    public static StockNewsService service = StockNewsService.getInstance();  
  
    @Override  
    public String getBotUsername() {  
        return "StockNewsAlarmBot";  Bot name  
    }  
  
    @Override  
    public void onUpdateReceived(Update update) {  
        if (update.hasMessage() && update.getMessage().hasText()) {  
              
        }  
    }  
  
    @Override  
    public String getBotToken() {  
        return "8751"  fo";  token  
    }  
}
```

# 5. TelegramBot

Java Code

<Telegram>

영인

영인

롯데케미칼

12:34:52 PM

롯데케미칼

```
9월 24, 2019 12:34:53 오후 org.hibernate.jpa.internal.util.LogHelper
INFO: HHH000204: Processing PersistenceUnitInfo [name: encore]
9월 24, 2019 12:34:54 오후 org.hibernate.Version logVersion
INFO: HHH000412: Hibernate Core {5.4.3.Final}
9월 24, 2019 12:34:54 오후 org.hibernate.annotations.common.reflection
INFO: HCANN000001: Hibernate Commons Annotations {5.1.0.Final}
9월 24, 2019 12:34:54 오후 org.hibernate.engine.jdbc.connections.internal
WARN: HHH10001002: Using Hibernate built-in connection pool (no
9월 24, 2019 12:34:55 오후 org.hibernate.engine.jdbc.connections.internal
```

NA

NaverStockNews

제목 : LG화학·롯데케미칼·대한유화...석유화학株 '탐나네'

일자 : 2019.09.22 15:48

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Naver

네이버 금융

국제유가 상승 수혜주는?에쓰오일, 3분기 영업이익  
흑자 전망SK이노베이션·GS도 好실적 예상글로벌  
경기둔화로 인한 수요 위축 우려에 짓눌려 있던 국제 유가 흐름에  
변화의 기운이 감지되고 있다. 사우디아라비아 아람코 생산  
시설비에 대한 공격으로 원유공급에 차질이 예상되면서다.



**Q & A**

감사합니다

