

240528 CRUD 복습

1. 테이블 생성

```
CREATE TABLE LETTEMP4 (  
    TEMP_ID CHAR(20) NOT NULL  
    , TEMP_VAL VARCHAR(100) NULL  
);  
  
ALTER TABLE LETTEMP4  
ADD PRIMARY KEY (TEMP_ID);  
  
ALTER TABLE LETTEMP4 COMMENT = '임시데이터저장소3';  
ALTER TABLE LETTEMP4 CHANGE COLUMN TEMP_ID TEMP_ID CHAR(20) NOT NULL;  
ALTER TABLE LETTEMP4 CHANGE COLUMN TEMP_VAL TEMP_VAL VARCHAR(100) NULL;
```

2. DB연결

context.xml(톰캣 서버)

```
<?xml version="1.0" encoding="UTF-8"?>  
<!--  
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contributor license agreements. See the NOTICE file distri  
this work for additional information regarding copyright ow  
The ASF licenses this file to You under the Apache License,  
(the "License"); you may not use this file except in compli  
the License. You may obtain a copy of the License at  
  
http://www.apache.org/licenses/LICENSE-2.0  
  
Unless required by applicable law or agreed to in writing,  
distributed under the License is distributed on an "AS IS"  
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either expres  
See the License for the specific language governing permiss
```

```

limitations under the License.
--><!-- The contents of this file will be loaded for each web

<!-- Default set of monitored resources. If one of these
<!-- web application will be reloaded.
<WatchedResource>WEB-INF/web.xml</WatchedResource>
<WatchedResource>WEB-INF/tomcat-web.xml</WatchedResource>
<WatchedResource>${catalina.base}/conf/web.xml</WatchedRe

<!-- Uncomment this to disable session persistence across
<!--
<Manager pathname="" />
-->

<Resource name="jdbc/homepageDB" auth="Container" type="j
    driverClassName="net.sf.log4jdbc.sql.jdbcapi.Dr
    url="jdbc:log4jdbc:mariadb://localhost:3306/hom
    username="homepage2024_user"
    password="homepage_pass"/>

</Context>

```

context-datasource.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans" xm
    xmlns:jdbc="http://www.springframework.org/schema/jdbc"
    xsi:schemaLocation="http://www.springframework.org/schema
        http://www.springframework.org/schema

<!-- 환경설정 기본정보를 globals.properties 에서 참조하도록 prop
<bean id="propertyConfigurer"
    class="org.springframework.beans.factory.config.Prope
    <property name="locations">
        <list>
            <value>classpath:/egovframework/egovProps/glo
            <!-- value>file:/product/jeus/egovProps/globa
        </list>

```

```

        </property>
    </bean>

    <!-- datasource 설정(propertyConfigurer 활용) -->
    <alias name="dataSource-${Globals.DbType}" alias="dataSou
    <alias name="dataSource-${Globals.DbType}" alias="egov.da

    <bean id="dataSource-mysql" class="org.springframework.jn
        <property name="jndiName" value="java:comp/env/jdbc/h
    </bean>

    <!-- mysql -->
    <!--      <bean id="dataSource-mysql" class="org.apache.common
    <!--          <property name="driverClassName" value="${Global
    <!--          <property name="url" value="${Globals.Url}" /> -
    <!--          <property name="username" value="${Globals.UserN
    <!--          <property name="password" value="${Globals.Passw
    <!--      </bean> -->

</beans>

```

globals.properties

```

#-----
#
#  globals.properties : 시스템
#
#-----
#  1.  key = value 구조입니다.
#  2.  key값은 공백문자를 포함불가, value값은 공백문자를 가능
#  3.  key값으로 한글을 사용불가, value값은 한글사용이 가능
#  4.  줄을 바꿀 필요가 있으면 '\'를 라인의 끝에 추가(만약 '\'문자를
#  5.  Windows에서의 디렉토리 표시 : '\\\' or '/' ('\' 사용하면 안
#  6.  Unix에서의 디렉토리 표시 : '/'
#  7.  주석문 처리는 #사용
#  8.  value값 뒤에 스페이스가 존재하는 경우 서블릿에서 참조할때는 에러발
#-----

```

```

# 운영서버 타입(WINDOWS, UNIX)
Globals.OsType = WINDOWS

# G4C 연결용 IP (localhost)
Globals.LocalIp = 127.0.0.1

# DB서버 타입(mysql, oracle, altibase, tiberio) - datasource 및 sql
Globals.DbType=mysql
Globals.UserName=homepage2024_user
Globals.Password=homepage_pass

# mysql
Globals.DriverClassName=net.sf.log4jdbc.DriverSpy
Globals.Url=jdbc:log4jdbc:mysql://127.0.0.1:3306/homepage2024

# MainPage Setting
Globals.MainPage = /cmm/main/mainPage.do

# 파일 확장자 화이트리스트(허용목록) : 파일 확장자를 (.)과 함께 연이어서
Globals.fileUpload.Extensions.Images = .gif.jpg.jpeg.png
Globals.fileUpload.Extensions = .gif.jpg.jpeg.png.xls.xlsx

# File ID 암호화 키
# 주의 : 반드시 기본값 "egovframe"을 다른것으로 변경하여 사용하시기 바랍니다
Globals.File.algorithmKey = egovframe

```

pom.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi=
    xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http
    <modelVersion>4.0.0</modelVersion>
    <groupId>egov</groupId>
    <artifactId>template-simple</artifactId>
    <packaging>war</packaging>
    <version>1.0.0</version>

```

```

<name>template-simple</name>
<url>http://www.egovframe.go.kr</url>

<licenses>
  <license>
    <name>The Apache Software License, Version 2.0</name>
    <url>http://www.apache.org/licenses/LICENSE-2.0.txt</url>
  </license>
</licenses>

<properties>
  <spring.maven.artifact.version>5.3.27</spring.maven.artifact.version>
  <org.egovframe.rte.version>4.2.0</org.egovframe.rte.version>
</properties>

<repositories>
  <repository>
    <id>mvn2s</id>
    <url>https://repo1.maven.org/maven2/</url>
    <releases>
      <enabled>true</enabled>
    </releases>
    <snapshots>
      <enabled>true</enabled>
    </snapshots>
  </repository>
  <repository>
    <id>egovframe</id>
    <url>https://maven.egovframe.go.kr/maven/</url>
    <releases>
      <enabled>true</enabled>
    </releases>
    <snapshots>
      <enabled>false</enabled>
    </snapshots>
  </repository>
</repositories>

```

```

<dependencies>
  <dependency>
    <groupId>org.egovframe.rte</groupId>
    <artifactId>org.egovframe.rte.ptl.mvc</artifactId>
    <version>${org.egovframe.rte.version}</version>
  </dependency>
  <dependency>
    <groupId>org.egovframe.rte</groupId>
    <artifactId>org.egovframe.rte.psl.dataaccess</art
    <version>${org.egovframe.rte.version}</version>
  </dependency>
  <dependency>
    <groupId>org.egovframe.rte</groupId>
    <artifactId>org.egovframe.rte.fdl.idgnr</artifact
    <version>${org.egovframe.rte.version}</version>
  </dependency>
  <dependency>
    <groupId>org.egovframe.rte</groupId>
    <artifactId>org.egovframe.rte.fdl.property</artif
    <version>${org.egovframe.rte.version}</version>
  </dependency>
  <dependency>
    <groupId>org.egovframe.rte</groupId>
    <artifactId>org.egovframe.rte.fdl.string</artifac
    <version>${org.egovframe.rte.version}</version>
  </dependency>
  <dependency>
    <groupId>org.egovframe.rte</groupId>
    <artifactId>org.egovframe.rte.fdl.crypto</artifac
    <version>${org.egovframe.rte.version}</version>
  </dependency>

  <dependency>
    <groupId>javax.servlet</groupId>
    <artifactId>javax.servlet-api</artifactId>
    <version>4.0.1</version>
    <scope>provided</scope>
  </dependency>

```

```
<dependency>
  <groupId>javax.servlet.jsp.jstl</groupId>
  <artifactId>jstl-api</artifactId>
  <version>1.2</version>
</dependency>

<dependency>
  <groupId>org.apache.commons</groupId>
  <artifactId>commons-dbcp2</artifactId>
  <version>2.9.0</version>
</dependency>

<dependency>
  <groupId>commons-codec</groupId>
  <artifactId>commons-codec</artifactId>
  <version>1.15</version>
</dependency>

<dependency>
  <groupId>org.apache.taglibs</groupId>
  <artifactId>taglibs-standard-impl</artifactId>
  <version>1.2.5</version>
</dependency>

<dependency>
  <groupId>cglib</groupId>
  <artifactId>cglib</artifactId>
  <version>3.3.0</version>
</dependency>

<dependency>
  <groupId>org.antlr</groupId>
  <artifactId>antlr</artifactId>
  <version>3.5</version>
</dependency>

<dependency>
```

```

        <groupId>org.apache.commons</groupId>
        <artifactId>commons-compress</artifactId>
        <version>1.23.0</version>
    </dependency>

    <!-- mysql driver -->
    <dependency>
        <groupId>mysql</groupId>
        <artifactId>mysql-connector-java</artifactId>
        <version>8.0.33</version>
    </dependency>

    <dependency>
        <groupId>com.googlecode.log4jdb</groupId>
        <artifactId>log4jdb</artifactId>
        <version>1.2</version>
        <exclusions>
            <exclusion>
                <artifactId>slf4j-api</artifactId>
                <groupId>org.slf4j</groupId>
            </exclusion>
        </exclusions>
    </dependency>

    <dependency>
        <groupId>commons-fileupload</groupId>
        <artifactId>commons-fileupload</artifactId>
        <version>1.5</version>
    </dependency>

    <dependency>
        <groupId>javax.servlet.jsp</groupId>
        <artifactId>javax.servlet.jsp-api</artifactId>
        <version>2.3.3</version>
        <scope>provided</scope>
    </dependency>

    <dependency>

```



```

        <groupId>com.ibm.icu</groupId>
        <artifactId>icu4j</artifactId>
        <version>73.2</version>
    </dependency>

    <dependency>
        <groupId>org.eclipse</groupId>
        <artifactId>yasson</artifactId>
        <version>1.0.2</version>
    </dependency>
    <dependency>
        <groupId>org.glassfish</groupId>
        <artifactId>javax.json</artifactId>
        <version>1.1.3</version>
    </dependency>

    <dependency>
        <groupId>org.bgee.log4jdbc-log4j2</groupId>
        <artifactId>log4jdbc-log4j2-jdbc4.1</artifactId>
        <version>1.16</version>
    </dependency>

    <!-- Validator -->
    <dependency>
        <groupId>javax.validation</groupId>
        <artifactId>validation-api</artifactId>
        <version>1.1.0.Final</version>
    </dependency>

    <dependency>
        <groupId>org.hibernate</groupId>
        <artifactId>hibernate-validator</artifactId>
        <version>5.2.4.Final</version>
    </dependency>

    <dependency>
        <groupId>net.sf</groupId>
        <artifactId>log4jdbc3</artifactId>

```

```

        <version>1.1</version>
    </dependency>

    <dependency>
        <groupId>javax.xml.bind</groupId>
        <artifactId>jaxb-api</artifactId>
        <version>2.3.0</version>
    </dependency>

</dependencies>

<build>
    <defaultGoal>install</defaultGoal>
    <directory>${basedir}/target</directory>
    <finalName>sht_webapp</finalName>
    <pluginManagement>
        <plugins>
            <plugin>
                <groupId>org.codehaus.cargo</groupId>
                <artifactId>cargo-maven3-plugin</artifactId>
                <version>1.10.7</version>
                <configuration>
                    <container>
                        <containerId>tomcat8x</containerId>
                        <type>embedded</type>
                    </container>
                    <configuration>
                        <property name="cargo.servlet.port" value="8080" />
                    </configuration>
                </configuration>
            </plugin>
            <plugin>
                <groupId>org.apache.maven.plugins</groupId>
                <artifactId>maven-compiler-plugin</artifactId>
                <version>3.11.0</version>
                <configuration>
                    <source>1.8</source>
                    <target>1.8</target>
                </configuration>
            </plugin>
        </plugins>
    </pluginManagement>
</build>

```

```

        <encoding>UTF-8</encoding>
        <maxmem>1024m</maxmem>
    </configuration>
</plugin>
<plugin>
    <groupId>org.apache.maven.plugins</groupId>
    <artifactId>maven-war-plugin</artifactId>
    <version>3.3.2</version>
    <configuration>
        <failOnMissingWebXml>false</failOnMis
    </configuration>
</plugin>
<plugin>
    <groupId>org.codehaus.mojo</groupId>
    <artifactId>hibernate3-maven-plugin</arti
    <version>3.0</version>
    <configuration>
        <components>
            <component>
                <name>hbm2ddl</name>
                <implementation>annotationcon
            </component>
        </components>
    </configuration>
    <dependencies>
        <dependency>
            <groupId>org.hsqldb</groupId>
            <artifactId>hsqldb</artifactId>
            <version>2.7.2</version>
        </dependency>
    </dependencies>
</plugin>
<!-- EMMA -->
<plugin>
    <groupId>org.codehaus.mojo</groupId>
    <artifactId>emma-maven-plugin</artifactId>
    <version>1.0-alpha-3</version>
</plugin>

```

```

        <!-- PMD manven plugin -->
        <plugin>
            <groupId>org.apache.maven.plugins</groupId>
            <artifactId>maven-pmd-plugin</artifactId>
            <version>3.21.0</version>
        </plugin>
    </plugins>
</pluginManagement>
<plugins>
    <!-- EMMA -->
    <plugin>
        <groupId>org.apache.maven.plugins</groupId>
        <artifactId>maven-surefire-plugin</artifactId>
        <version>3.1.2</version>
        <configuration>
            <skipTests>true</skipTests>
            <forkMode>once</forkMode>
            <reportFormat>xml</reportFormat>
            <excludes>
                <exclude>**/Abstract*.java</exclude>
                <exclude>**/*Suite.java</exclude>
            </excludes>
            <includes>
                <include>**/*Test.java</include>
            </includes>
        </configuration>
    </plugin>
    <plugin>
        <groupId>org.codehaus.mojo</groupId>
        <artifactId>emma-maven-plugin</artifactId>
        <inherited>true</inherited>
    </plugin>
    <!-- JavaDoc -->
    <plugin>
        <groupId>org.apache.maven.plugins</groupId>
        <artifactId>maven-javadoc-plugin</artifactId>
        <version>3.5.0</version>
    </plugin>

```

```

        </plugins>
    </build>
    <reporting>
        <outputDirectory>${basedir}/target/site</outputDirectory>
        <plugins>
            <plugin>
                <groupId>org.apache.maven.plugins</groupId>
                <artifactId>maven-project-info-reports-plugin</artifactId>
                <version>3.4.4</version>
                <reportSets>
                    <reportSet>
                        <id>sunlink</id>
                        <reports>
                            <report>javadoc</report>
                        </reports>
                        <inherited>true</inherited>
                        <configuration>
                            <links>
                                <link>https://docs.oracle.com
                            </links>
                        </configuration>
                    </reportSet>
                </reportSets>
            </plugin>
            <!-- JUnit Test Results & EMMA Coverage Reporting -->
            <plugin>
                <groupId>org.codehaus.mojo</groupId>
                <artifactId>emma-maven-plugin</artifactId>
                <inherited>true</inherited>
            </plugin>
            <plugin>
                <groupId>org.codehaus.mojo</groupId>
                <artifactId>surefire-report-maven-plugin</artifactId>
                <inherited>true</inherited>
                <reportSets>
                    <reportSet>
                        <reports>
                            <report>report-only</report>
                        </reports>
                    </reportSet>
                </reportSets>
            </plugin>
        </plugins>
    </reporting>













```

```

        </reports>
    </reportSet>
</reportSets>
</plugin>
<!-- Generating JavaDoc Report -->
<plugin>
    <groupId>org.apache.maven.plugins</groupId>
    <artifactId>maven-javadoc-plugin</artifactId>
    <configuration>
        <minmemory>128m</minmemory>
        <maxmemory>512m</maxmemory>
        <encoding>${encoding}</encoding>
        <docencoding>${encoding}</docencoding>
        <charset>${encoding}</charset>
    </configuration>
</plugin>
<!-- Generating Java Source in HTML -->
<plugin>
    <groupId>org.apache.maven.plugins</groupId>
    <artifactId>maven-jxr-plugin</artifactId>
    <configuration>
        <inputEncoding>${encoding}</inputEncoding>
        <outputEncoding>${encoding}</outputEncoding>
        <linkJavadoc>true</linkJavadoc>
        <javadocDir>apidocs</javadocDir>
    </configuration>
</plugin>
</plugins>
</reporting>
</project>

```

2-1. log4j2 넣어주기(혹시 몰라서)

- ▼  study
 - >  src/main/java
 - ▼  src/main/resources
 - >  db
 - ▼  egovframework
 - >  egovProps
 - >  mapper
 - >  message
 - >  spring
 - >  validator
 -  log4j2.xml
 -  log4jdbc.log4j2.properties

2-2. 시퀀스 생성기 - context-idgen.xml

1975행에 추가

```
<!-- TEMP START -->
<bean name="egovTempIdGnrService" class="org.egovframe.rte.idgen.service.EgovTempIdGnrService">
    <property name="dataSource" ref="egov.dataSource" />
    <property name="strategy" ref="tempStrategy" />
    <property name="blockSize" value="10" />
    <property name="table" value="IDS" />
    <property name="tableName" value="TEMP_ID" />
</bean>

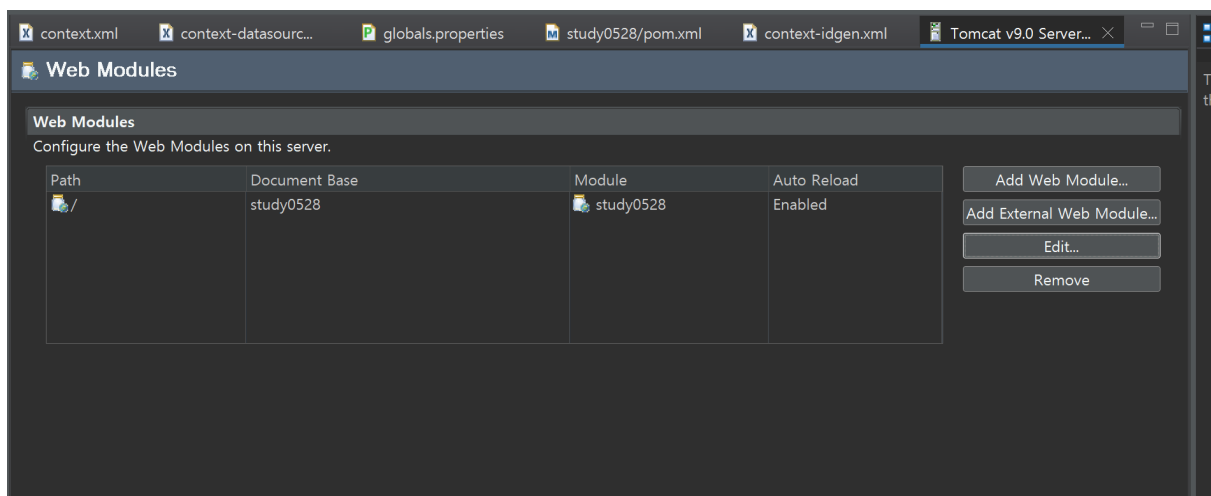
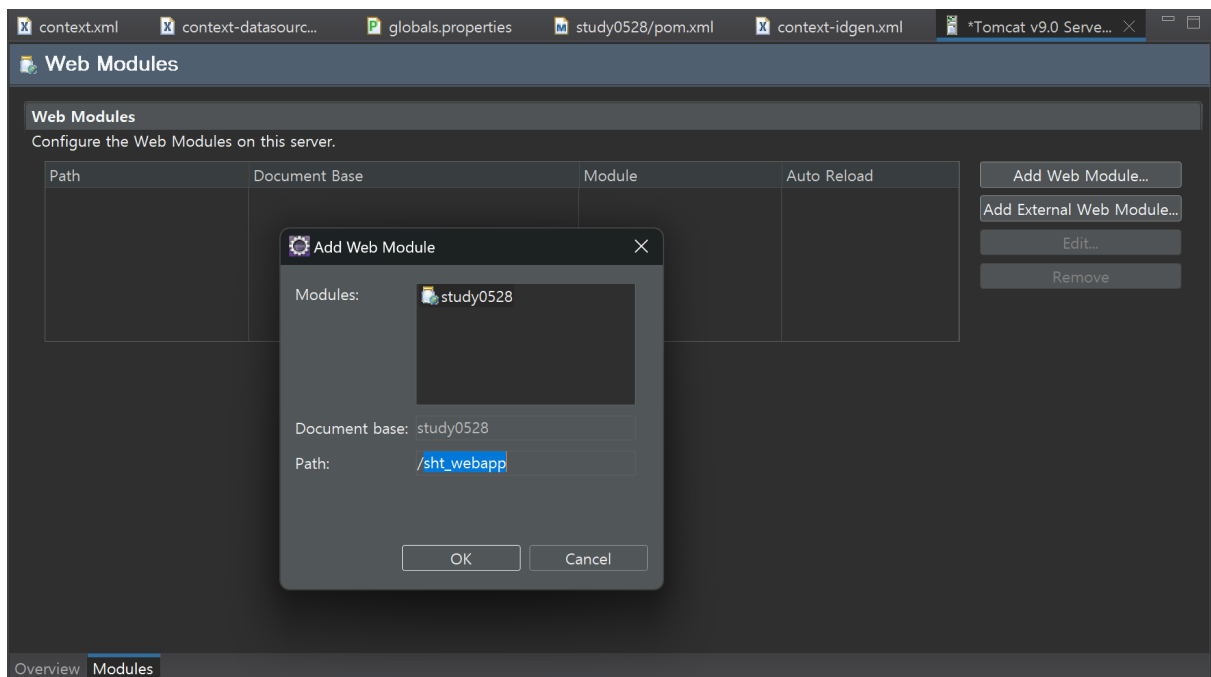
<bean name="tempStrategy" class="org.egovframe.rte.idgen.strategy.TempIdStrategy">
```

```

        <property name="prefix" value="TEMP_" />
        <property name="cipers" value="15" />
        <property name="fillChar" value="0" />
    </bean>
<!-- TEMP END -->

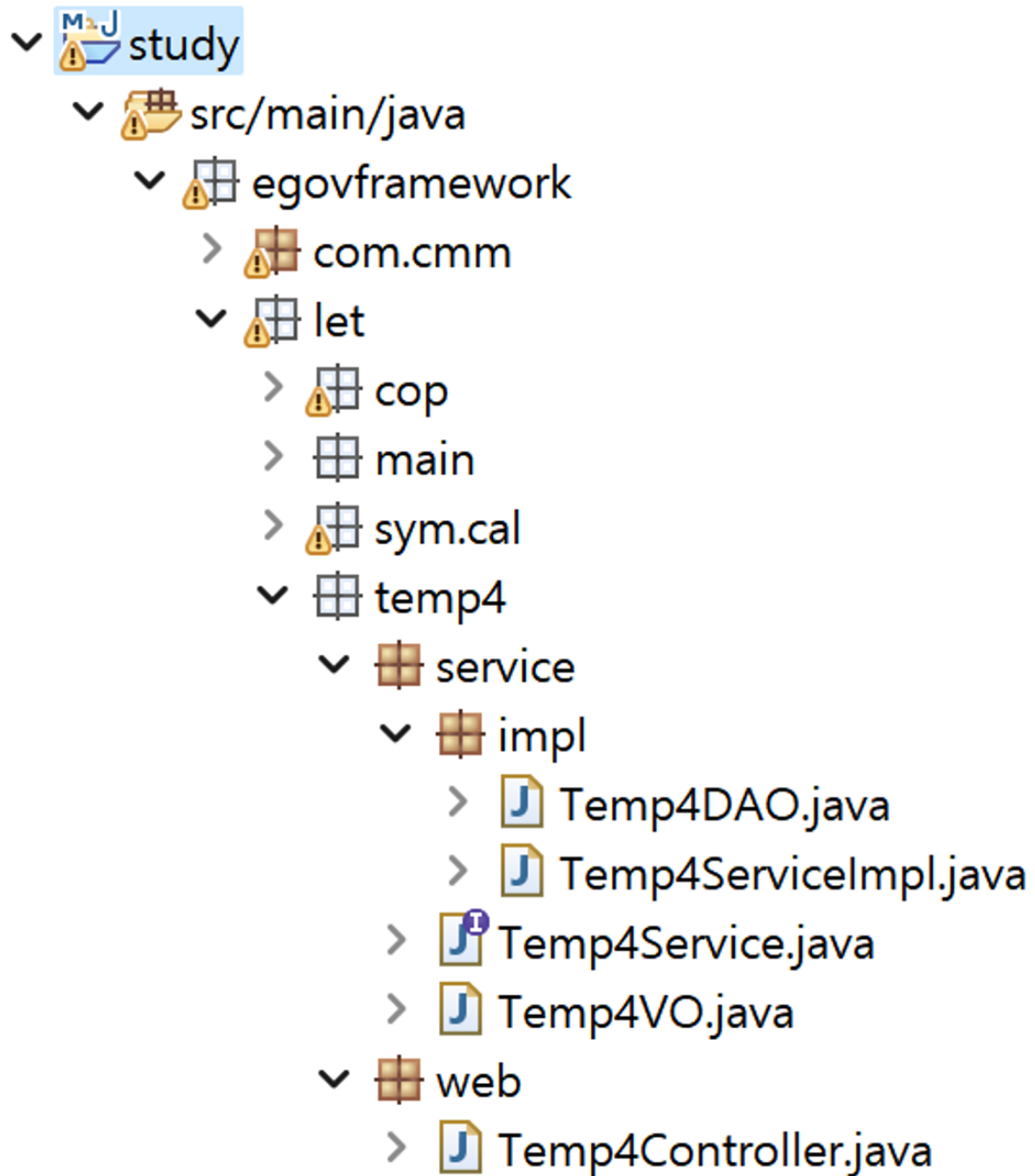
```

Server에 프로젝트 추가해주기















VO → XML → DAO → Service → ServiceImpl → Controller → jsp

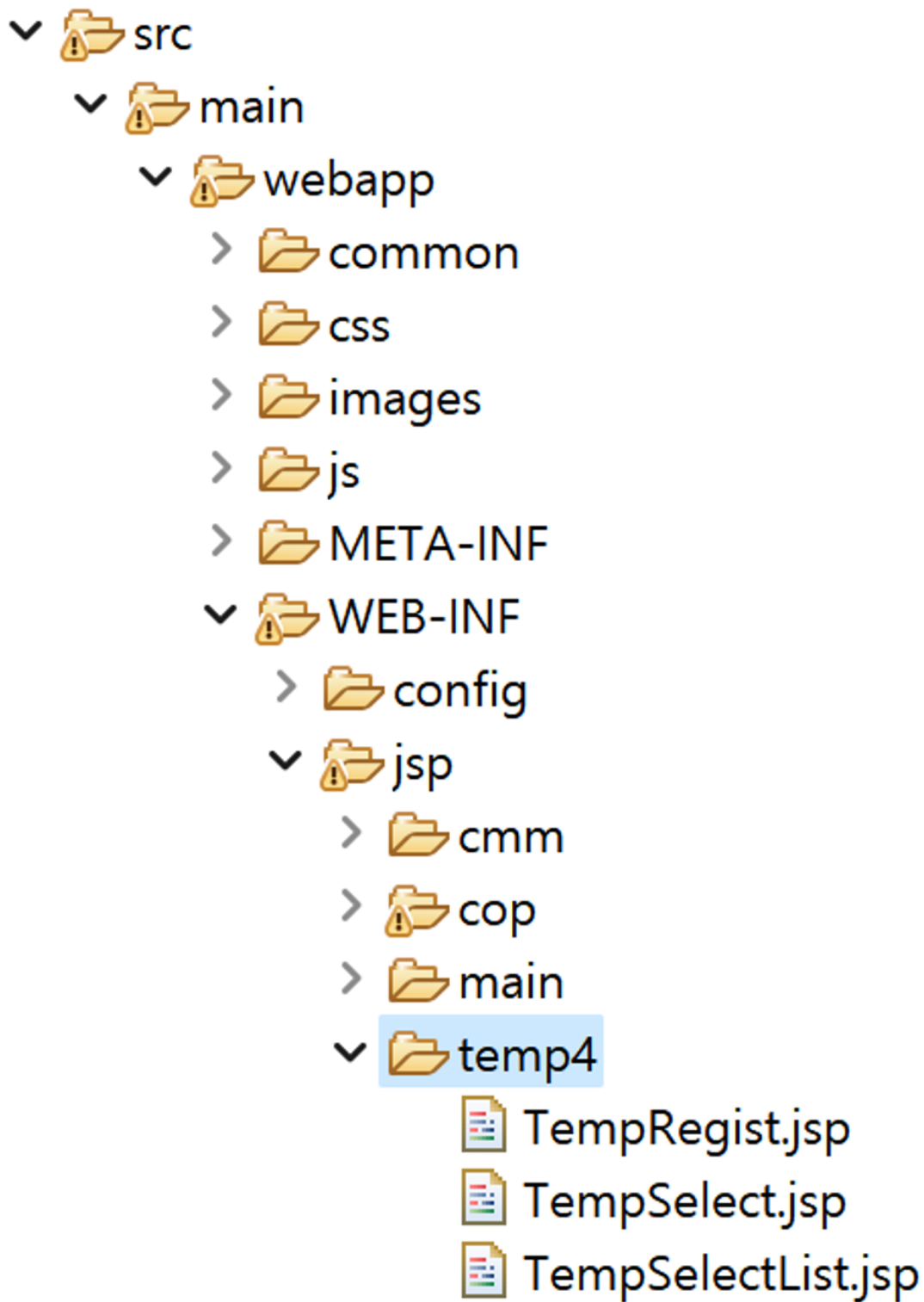
1. 패키지 생성



temp4 → Temp4_mysql.xml

- ▼  src/main/resources
 - ▼  db
 -  shtdb.sql
 - ▼  egovframework
 - >  egovProps
 - ▼  mapper
 - >  config
 - ▼  let
 - >  cmm
 - >  cop
 - ▼  temp4
 -  Temp4_mysql.xml

jsp



2. VO 생성

Temp4VO

```

package egovframework.let.temp4.service;

import java.io.Serializable;

import egovframework.com.cmm.ComDefaultVO;

public class Temp4VO extends ComDefaultVO implements Serializable {

    private String tempId;
    private String tempVal;

    //Getter and Setter(Shift + Alt + s)
    public String getTempId() {
        return tempId;
    }

    public void setTempId(String tempId) {
        this.tempId = tempId;
    }

    public String getTempVal() {
        return tempVal;
    }

    public void setTempVal(String tempVal) {
        this.tempVal = tempVal;
    }
}

```

Temp4_mysql.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE mapper PUBLIC "-//mybatis.org//DTD Mapper 3.0//EN"
"http://mybatis.org/dtd/mybatis-3-mapper.dtd">
<mapper namespace="temp4DAO">

```

```

<resultMap type="egovframework.let.temp4.service.Temp4VO"
    <result property="tempId" column="TEMP_ID" />
    <result property="tempVal" column="TEMP_VAL" />
</resultMap>

<select id="temp4DAO.selectTempList" resultType="egovMap">
    SELECT
        TEMP_ID
        , TEMP_VAL
    FROM lettemp4
    ORDER BY TEMP_ID DESC
    LIMIT #{recordCountPerPage} OFFSET #{firstIndex}
</select>

<select id="temp4DAO.selectTempListCnt" resultType="java.lang.Integer">
    SELECT
        COUNT(*) CNT
    FROM lettemp4
</select>

<select id="temp4DAO.selectTemp" resultType="egovframework.let.temp4.service.Temp4VO">
    SELECT
        TEMP_ID AS TempId
        , TEMP_VAL AS TempVal
    FROM lettemp4
    WHERE TEMP_ID = #{tempId}
</select>

<insert id="temp4DAO.insertTemp" parameterType="egovframework.let.temp4.service.Temp4VO">
    INSERT INTO lettemp4 (
        TEMP_ID
        , TEMP_VAL
    )VALUES (
        #{tempId}
        , #{tempVal}
    )
</insert>

```

```

<update id="temp4DAO.updateTemp" parameterType="egovframe
    UPDATE lettemp4 SET
        TEMP_VAL = #{tempVal}
    WHERE TEMP_ID = #{tempId}
</update>

<delete id="temp4DAO.deleteTemp" parameterType="egovframe
    DELETE FROM lettemp4
    WHERE TEMP_ID = #{tempId}
</delete>
</mapper>

```

4. DAO

Temp4DAO

```

package egovframework.let.temp4.service.impl;

import java.util.List;

import org.egovframe.rte.psl.dataaccess.EgovAbstractMapper;
import org.egovframe.rte.psl.dataaccess.util.EgovMap;
import org.springframework.stereotype.Repository;

import egovframework.let.temp4.service.Temp4VO;

@Repository("temp4DAO")
public class Temp4DAO extends EgovAbstractMapper{

    //임시데이터 목록 가져오기
    public List<EgovMap> selectTempList(Temp4VO vo) throws Exception{
        return selectList("temp4DAO.selectTempList", vo);
    }

    //임시데이터 목록 수
    public int selectTempListCnt(Temp4VO vo) throws Exception{
        return selectOne("temp4DAO.selectTempListCnt", vo);
    }
}

```

```

//임시데이터 가져오기
public Temp4VO selectTemp(Temp4VO vo) throws Exception {
    return selectOne("temp4DAO.selectTemp", vo);
}

//임시데이터 등록
public void insertTemp(Temp4VO vo) throws Exception {
    insert("temp4DAO.insertTemp", vo);
}

//임시데이터 수정
public void updateTemp(Temp4VO vo) throws Exception {
    update("temp4DAO.updateTemp", vo);
}

//임시데이터 삭제
public void deleteTemp(Temp4VO vo) throws Exception {
    delete("temp4DAO.deleteTemp", vo);
}
}

```

5. ServiceImpl

Temp4ServiceImpl

```

package egovframework.let.temp4.service.impl;

import java.util.List;

import javax.annotation.Resource;

import org.egovframe.rte.fdl.idgnr.EgovIdGnrService;
import org.egovframe.rte.fdl.idgnr.impl.EgovSequenceIdGnrServ;
import org.egovframe.rte.psl.dataaccess.util.EgovMap;
import org.springframework.stereotype.Service;

import egovframework.let.temp4.service.Temp4Service;

```

```

import egovframework.let.temp4.service.Temp4VO;

@Service("temp4Service")
public class Temp4ServiceImpl extends EgovSequenceIdGnrService {

    @Resource(name = "temp4DAO")
    private Temp4DAO temp4DAO;

    @Resource(name = "egovTempIdGnrService")
    private EgovIdGnrService idgenService;

    //임시데이터 목록 가져오기
    public List<EgovMap> selectTempList(Temp4VO vo) throws Exception {
        return temp4DAO.selectTempList(vo);
    }

    //임시데이터 목록 수
    public int selectTempListCnt(Temp4VO vo) throws Exception {
        return temp4DAO.selectTempListCnt(vo);
    }

    //임시데이터 가져오기
    public Temp4VO selectTemp(Temp4VO vo) throws Exception {
        return temp4DAO.selectTemp(vo);
    }

    //임시데이터 등록하기
    public String insertTemp(Temp4VO vo) throws Exception {
        String id = idgenService.getNextStringId();
        vo.setTempId(id);
        temp4DAO.insertTemp(vo);

        return id;
    }

    //임시데이터 수정하기
    public void updateTemp(Temp4VO vo) throws Exception {

```



```

        temp4DAO.updateTemp(vo);
    }

    //임시데이터 삭제하기
    public void deleteTemp(Temp4VO vo) throws Exception {
        temp4DAO.deleteTemp(vo);
    }
}

```

6. Service

Temp4Service

```

package egovframework.let.temp4.service;

import java.util.List;

import org.egovframe.rte.psl.dataaccess.util.EgovMap;

public interface Temp4Service {

    //임시데이터 목록 가져오기
    public List<EgovMap> selectTempList(Temp4VO vo) throws Exception;

    //임시데이터 목록 수
    public int selectTempListCnt(Temp4VO vo) throws Exception;

    //임시데이터 가져오기
    public Temp4VO selectTemp(Temp4VO vo) throws Exception;

    //임시데이터 등록하기
    public String insertTemp(Temp4VO vo) throws Exception;

    //임시데이터 수정하기
    public void updateTemp(Temp4VO vo) throws Exception;

    //임시데이터 삭제하기
}

```

```
        public void deleteTemp(Temp4VO vo) throws Exception;
    }
```

7. Controller

Temp4Controller

```
package egovframework.let.temp4.web;

import java.util.List;

import javax.annotation.Resource;
import javax.servlet.http.HttpServletRequest;

import org.egovframe.rte.fdl.string.EgovStringUtil;
import org.egovframe.rte.psl.dataaccess.util.EgovMap;
import org.egovframe.rte.ptl.mvc.tags.ui.pagination.Pagination;
import org.springframework.stereotype.Controller;
import org.springframework.ui.ModelMap;
import org.springframework.web.bind.annotation.RequestMapping;

import egovframework.let.temp4.service.Temp4Service;
import egovframework.let.temp4.service.Temp4VO;

@Controller
public class Temp4Controller {

    @Resource(name = "temp4Service")
    private Temp4Service temp4Service;

    //임시데이터 목록 가져오기
    @RequestMapping(value = "/temp4/selectList.do")
    public String selectList(Temp4VO temp4VO, HttpServletRequest request,
        PaginationInfo paginationInfo = new PaginationInfo();

        paginationInfo.setCurrentPageNo(temp4VO.getPageIndex());
        paginationInfo.setRecordCountPerPage(temp4VO.getPageU
        paginationInfo.setPageSize(temp4VO.getPageSize());
```

```

temp4VO.setFirstIndex(paginationInfo.getFirstRecordIn
temp4VO.setLastIndex(paginationInfo.getLastRecordInde
temp4VO.setRecordCountPerPage(paginationInfo.getReco

List<EgovMap> resultList = temp4Service.selectTempLis
model.addAttribute("resultList", resultList);

int totCnt = temp4Service.selectTempListCnt(temp4VO);

paginationInfo.setTotalRecordCount(totCnt);
model.addAttribute("paginationInfo", paginationInfo);

/*
List<EgovMap> resultList = temp3Service.selectTempLis
model.addAttribute("resultList", resultList);

int totCnt = temp3Service.selectTempListCnt(temp3VO);
model.addAttribute("totCnt", totCnt);
*/

return "temp4/TempSelectList";
}

//임시데이터 가져오기
@RequestMapping(value = "/temp4/select.do")
public String select(Temp4VO temp4VO, HttpServletRequest
    Temp4VO result = temp4Service.selectTemp(temp4VO);
    model.addAttribute("result", result);
    return "temp4/TempSelect";
}

//임시데이터 등록/수정
@RequestMapping(value = "/temp4/tempRegist.do")
public String tempRegist(Temp4VO temp4VO, HttpServletRequest
    Temp4VO result = new Temp4VO();
    if(!EgovStringUtil.isEmpty(temp4VO.getTempId())) {
        result = temp4Service.selectTemp(temp4VO);
    }

```

```

    }
    model.addAttribute("result", result);

    return "temp4/TempRegist";
}

//임시데이터 등록하기
@RequestMapping(value = "/temp4/insert.do")
public String insert(Temp4VO temp4VO, HttpServletRequest
    temp4Service.insertTemp(temp4VO);
    return "forward:/temp4/selectList.do";
}

//임시데이터 수정하기
@RequestMapping(value = "/temp4/update.do")
public String update(Temp4VO temp4VO, HttpServletRequest
    temp4Service.updateTemp(temp4VO);
    return "forward:/temp4/selectList.do";
}

//임시데이터 삭제하기
@RequestMapping(value = "/temp4/delete.do")
public String delete(Temp4VO temp4VO, HttpServletRequest
    temp4Service.deleteTemp(temp4VO);
    return "forward:/temp4/selectList.do";
}
}

```

8. jsp

tempSelectList.jsp

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core" %>
<%@ taglib prefix="ui" uri="http://egovframework.gov/ctl/ui" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/functions" prefix="fn" %>
<%@ taglib prefix="spring" uri="http://www.springframework.org/spring" %>

```

```

<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
<link href="/css/common.css" rel="stylesheet">
<script src="http://code.jquery.com/jquery-latest.min.js"></script>
<style>
    table{border-collapse: collapse;}
    th{font-weight: bold;}
    th, td{padding: 5px; border: 1px solid #000;}
</style>
</head>
<body>

<table>
    <thead>
        <tr>
            <th>TEMP_ID</th>
            <th>TEMP_VAL</th>
            <th>관리</th>
        </tr>
    </thead>
    <tbody>
        <c:forEach var="result" items="${resultList}">
            <tr>
                <td><c:out value="${result.tempId}"/></td>
                <td>
                    <c:url var="viewUrl" value="/temp4/select"
                        <c:param name="tempId" value="${result.tempId}" />
                    </c:url>
                    <a href="${viewUrl}"><c:out value="${result.tempVal}" /></a>
                </td>
                <td>
                    <c:url var="delUrl" value="/temp4/delete"
                        <c:param name="tempId" value="${result.tempId}" />
                    </c:url>

```

```

        <a href="${delUrl}" class="btn-del">삭제</a>
    </td>
</tr>
</c:forEach>
</tbody>
</table>

<div id="paging_div">
    <ul class="paging_align">
        <c:url var="pageUrl" value="/temp4/selectList.do?" />
        <c:set var="pagingParam"><c:out value="${pageUrl}" /></c:set>
        <ui:pagination paginationInfo="${paginationInfo}" type="simple">
            <ui:param name="pageUrl" value="${pageUrl}" />
            <ui:param name="pagingParam" value="${pagingParam}" />
        </ui:pagination>
    </ul>
</div>

<button type="button" id="btn-reg" data-href="/temp4/tempRegi
<script>
$(document).ready(function(){
    $("#btn-reg").click(function(){
        location.href = $(this).data("href");
    });

    $(".btn-del").click(function(){
        if(!confirm("삭제하시겠습니까?")){
            return false;
        }
    });
});
</script>
</body>
</html>

```

tempSelect.jsp

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core"

```

```

<%@ taglib prefix="ui" uri="http://egovframework.gov/ctl/ui" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/functions" prefix="fn" %>
<%@ taglib prefix="spring" uri="http://www.springframework.org/tags" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
<script src="http://code.jquery.com/jquery-latest.min.js"></script>
</head>
<body>

    ${result.tempVal}

    <div class="box-btn">
        <c:url var="uptUrl" value="/temp4/tempRegist.do">
            <c:param name="tempId" value="${result.tempId}" />
        </c:url>
        <a href="${uptUrl}">수정</a>

        <c:url var="delUrl" value="/temp4/delete.do">
            <c:param name="tempId" value="${result.tempId}" />
        </c:url>
        <a href="${delUrl}" class="btn-del">삭제</a>

        <a href="/temp4/selectList.do">목록</a>
    </div>
    <script>
    $(document).ready(function(){
        $(".btn-del").click(function(){
            if(!confirm("삭제하시겠습니까?")){
                return false;
            }
        });
    });
    </script>
</body>
</html>

```

tempRegist.jsp

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ taglib prefix="c" uri="http://java.sun.com/jsp/jstl/core"%>
<%@ taglib prefix="ui" uri="http://egovframework.gov/ctl/ui"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/functions" prefix="fn"%>
<%@ taglib prefix="spring" uri="http://www.springframework.org/tags"%>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Insert title here</title>
</head>

<body>
    <c:choose>
        <c:when test="${not empty result.tempId}">
            <c:set var="actionUrl" value="/temp4/update.do" />
        </c:when>
        <c:otherwise>
            <c:set var="actionUrl" value="/temp4/insert.do" />
        </c:otherwise>
    </c:choose>

    *등록폼
    <form action="${actionUrl}" method="post" name="tempVO">
        <input type="hidden" name="tempId" value="${result.tempId}" />
        <label for="tempVal">값 정보 : </label>
        <input type="text" id="tempVal" name="tempVal" value="${tempVal}" />
        <br/>
        <c:choose>
            <c:when test="${not empty result.tempId}">
                <button type="submit">수정</button>
            </c:when>
            <c:otherwise>
                <button type="submit">등록</button>
            </c:otherwise>
        </c:choose>
    </form>
</body>
</html>
```



```

        </c:otherwise>
    </c:choose>
</form>
</body>
</html>

```

<http://localhost:2024/temp4/selectList.do>

The screenshot shows a web browser window with the address bar displaying `localhost:2024/temp4/selectList.do?pageIndex=1`. The browser tabs include '240528 CRUD', 'ChatGPT', and 'Insert title here'. The main content area displays a table with the following data:

TEMP_ID	TEMP_VAL	관리
TEMP_0000000000000218		삭제
TEMP_0000000000000217		삭제
TEMP_0000000000000216	sdfsdf	삭제
TEMP_0000000000000215	sdfsdf	삭제
TEMP_0000000000000214	sdfsdf	삭제
TEMP_0000000000000213	sdfsdf	삭제
TEMP_0000000000000212	sdfsdf	삭제
TEMP_0000000000000211	sdfsdf	삭제
TEMP_0000000000000210	sdfsdf	삭제
TEMP_0000000000000209	sdfsdf	삭제

Below the table, there is a pagination bar with the following elements: '등록하기', a set of navigation arrows, and a list of page numbers from 1 to 10. The first page (1) is currently selected.