

Mybatis 게시판 제작(with paging, search)

프로젝트명 : B07dMybatisBoard

준비사항

- 의존설정 : Spring Web, Lombok, JDBC API, Oracle Driver, Mybatis Framework
- JSP 사용을 위한 설정을 한다.
- Refresh Gradle Project 를 눌러 적용한다.
- 페이징 이미지 리소스 [[다운로드](#)] ⇒ static 하위에 images 폴더 생성후 붙여넣기

테이블생성

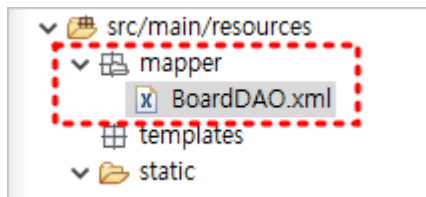
```
create table myboard(  
  idx number primary key,  
  name varchar2(50),  
  title varchar2(200),  
  content varchar2(2000),  
  postdate date default sysdate,  
  visitcount number(6) default 0  
);
```

Mybatis 설정

프로퍼티 : resources/application.properties

```
1 # 포트설정  
2 server.port=8586  
3  
4 # JSP 설정  
5 spring.mvc.view.prefix=/WEB-INF/views/  
6 spring.mvc.view.suffix=.jsp  
7  
8 # oracle 설정  
9 spring.datasource.driver-class-name=oracle.jdbc.OracleDriver  
10 spring.datasource.url=jdbc:oracle:thin:@localhost:1521:xe  
11 spring.datasource.username=musthave  
12 spring.datasource.password=1234  
13  
14 # mybatis 매퍼의 위치 설정(src/main/resources하위에 생성함)  
15 mybatis.mapper-locations=classpath:mapper/**/*.xml  
16
```

매퍼 : resources/mapper/BoardDAO.xml



```
1 <?xml version="1.0" encoding="UTF-8"?>
2
3 <!DOCTYPE mapper
4     PUBLIC "-//mybatis.org//DTD Mapper 3.0//EN"
5     "http://mybatis.org/dtd/mybatis-3-mapper.dtd">
6
7 <mapper namespace="com.edu.springboot.jdbc.IBoardService">
8
```

인터페이스 : com.edu.springboot.jdbc.IBoardService.java

```
1 package com.edu.springboot.jdbc;
2
3 import java.util.ArrayList;
4
5
6
7
8 @Mapper
9 public interface IBoardService {
10     public int getTotalCount(ParameterDTO parameterDTO);
11     public ArrayList<BoardDTO> listPage(ParameterDTO parameterDTO);
12     public int write(@Param("_name") String name,
13                     @Param("_title") String title,
14                     @Param("_content") String content);
15     public BoardDTO view(BoardDTO boardDTO);
16     public int edit(BoardDTO boardDTO);
17     public int delete(String idx);
18 }
19
```

컨트롤러 : com.edu.springboot.MainController.java

```
1 package com.edu.springboot;
2
3 import java.util.ArrayList;
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21 @Controller
22 public class MainController {
23
24     @Autowired
25     IBoardService dao;
```

여기까지 작성하세요.

목록보기

뷰 : webapp/WEB-INF/views/home.jsp

```
9 <body>
10     <h2>스프링 부트 프로젝트</h2>
11     <ul>
12         <li><a href="/">루트</a></li>
13     </ul>
14
15     <h2>Mybatis로 구현한 게시판</h2>
16     <ul>
17         <li><a href="./list.do">게시판목록</a></li>
18     </ul>
19 </body>
20 </html>
```

DTO객체1 : com.edu.springboot.jdbc.BoardDTO.java

```
1 package com.edu.springboot.jdbc;
2
3 import lombok.Data;
4
5 @Data
6 public class BoardDTO {
7     private String idx;
8     private String name;
9     private String title;
10    private String content;
11    private java.sql.Date postdate;
12    private int visitcount;
13 }
```

DTO객체2 : com.edu.springboot.jdbc.ParameterDTO.java

```
1 package com.edu.springboot.jdbc;
2
3 import lombok.Getter;
4
5
6 @Getter
7 @Setter
8 public class ParameterDTO {
9     private String searchField;
10    private String searchKeyword;
11    private int start;
12    private int end;
13 }
```

여기까지 작성하세요.

컨트롤러 : com.edu.springboot.MainController.java

```
32 @RequestMapping("/list.do")
33 public String boardList(Model model, HttpServletRequest req,
34     ParameterDTO parameterDTO) {
35
36     int totalCount = dao.getTotalCount(parameterDTO);
37     int pageSize = 2; //한 페이지당 게시물 수
38     int blockPage = 2; //한 블록당 페이지번호 수
39     int pageNum = (req.getParameter("pageNum")==null
40         || req.getParameter("pageNum").equals(""))
41         ? 1 : Integer.parseInt(req.getParameter("pageNum"));
42     int start = (pageNum-1) * pageSize + 1;
43     int end = pageNum * pageSize;
44     parameterDTO.setStart(start);
45     parameterDTO.setEnd(end);
46
47     Map<String, Object> maps = new HashMap<String, Object>();
48     maps.put("totalCount", totalCount);
49     maps.put("pageSize", pageSize);
50     maps.put("pageNum", pageNum);
51     model.addAttribute("maps", maps);
52
53     ArrayList<BoardDTO> lists = dao.listPage(parameterDTO);
54     model.addAttribute("lists", lists);
55
56     String pagingImg =
57         PagingUtil.pagingImg(totalCount, pageSize,
58             blockPage, pageNum,
59             req.getContextPath()+"/list.do?");
60     model.addAttribute("pagingImg", pagingImg);
61
62     return "list";
63 }
```

매퍼 : resources/mapper/BoardDAO.xml

```
7 <mapper namespace="com.edu.springboot.jdbc.IBoardService">
8     <select id="getTotalCount" resultType="int"
9         parameterType="com.edu.springboot.jdbc.ParameterDTO">
10         SELECT COUNT(*) from myboard
11         <if test="searchKeyword!=null
12             and !searchKeyword.equals('')">
13             WHERE ${searchField} LIKE '%'|#{searchKeyword}||'%'
14         </if>
15     </select>
```

```

17<select id="listPage"
18    responseType="com.edu.springboot.jdbc.BoardDTO"
19    parameterType="com.edu.springboot.jdbc.ParameterDTO">
20    SELECT * FROM (
21        SELECT Tb.*, rownum rNum FROM (
22            SELECT * FROM myboard
23            <if test="searchKeyword!=null
24                and !searchKeyword.equals('')">
25                WHERE ${searchField} LIKE
26                    '%'||#{searchKeyword}||'%'
27            </if>
28            ORDER BY idx DESC
29        ) Tb
30    )
31    WHERE rNum<![CDATA[>=]]>#{start}
32        AND rNum<![CDATA[<=]]>#{end}
33</select>
34<!--
35WHERE rNum BETWEEN #{start} AND #{end}
36-->

```

유틸클래스 : utils.PagingUtil.java

```

public class PagingUtil {

    public static String pagingImg(
        int totalRecordCount,
        int pageSize,
        int blockPage,
        int pageNum,
        String page) {

        String pagingStr = "";

        //1.전체페이지 구하기
        int totalPage = (int)(Math.ceil(((double)totalRecordCount/pageSize)));

        /*2.현재페이지번호를 통해 이전 페이지블럭에
        해당하는 페이지를 구한다.
        */
        int intTemp =
            (((pageNum-1) / blockPage) * blockPage) + 1;

```

//3.처음페이지 바로가기 & 이전페이지블럭 바로가기

```
if(intTemp != 1) {  
    //첫번째 페이지 블럭에서는 출력되지 않음  
    //두번째 페이지 블럭부터 출력됨.  
    pagingStr += "  
        + "<a href='"+page+"pageNum=1'">  
        + "<img src='./images/paging1.gif'></a>";  
    pagingStr += "&nbsp;";  
    pagingStr += "  
        + "<a href='"+page+"pageNum="+  
            (intTemp-blockPage)+"'">  
        + "<img src='./images/paging2.gif'></a>";  
}
```

//페이지표시 제어를 위한 변수

```
int blockCount = 1;
```

```
/*
```

4.페이지를 뿌려주는 로직 : blockPage의 수만큼 또는
마지막페이지가 될때까지 페이지를 출력한다.

```
*/
```

```
while(blockCount<=blockPage && intTemp<=totalPage)
```

```
{  
    if(intTemp==pageNum) {  
        pagingStr += "&nbsp;"+intTemp+"&nbsp;";  
    }  
    else {  
        pagingStr += "&nbsp;<a href='"+page  
            +"pageNum="+intTemp+"'">"+  
            intTemp+"</a>&nbsp;";  
    }  
    intTemp++;  
    blockCount++;  
}
```

//5.다음페이지블럭 & 마지막페이지 바로가기

```
if(intTemp <= totalPage) {  
    pagingStr += "<a href='"+page+"pageNum="+  
intTemp+"'">
```

```

        + "<img src='./images/paging3.gif'></a>";
        pagingStr += "&nbsp;";
        pagingStr += "<a href='" + page + "pageNum=" +
                                totalPage + "'>"
        + "<img src='./images/paging4.gif'></a>";
    }

    return pagingStr;
}
}

```

여기까지 작성하세요

뷰 : webapp/WEB-INF/views/list.jsp

```

1 <%@ page language="java" contentType="text/html; charset=UTF-8"
2   pageEncoding="UTF-8"%>
3 <%@ taglib prefix="c" uri="jakarta.tags.core" %>
4 <!DOCTYPE html>
5 <html>
6 <head>
7   <meta charset="UTF-8">
8   <title>Mybatis게시판</title>
9 </head>
10 <body>
11   <h2>게시판 목록(Mybatis)</h2>
12   <!-- 검색 폼 -->
13   <form method="get">
14     <table border="1" width="90%">
15       <tr>
16         <td align="center">
17           <select name="searchField">
18             <option value="title">제목</option>
19             <option value="content">내용</option>
20           </select>
21           <input type="text" name="searchKeyword" />
22           <input type="submit" value="검색하기" />
23         </td>
24       </tr>
25     </table>
26   </form>
27

```

```

28      <!-- 목록 테이블 -->
29      <table border="1" width="90%">
30          <tr>
31              <th width="10%">번호</th>
32              <th width="*">제목</th>
33              <th width="15%">작성자</th>
34              <th width="10%">조회수</th>
35              <th width="15%">작성일</th>
36          </tr>

```

```

37  <c:choose>
38      <c:when test="${ empty lists }">
39          <tr>
40              <td colspan="5" align="center">
41                  등록된 게시물이 없습니다^^*
42              </td>
43          </tr>
44      </c:when>
45      <c:otherwise>
46          <c:forEach items="${ lists }" var="row" varStatus="loop">
47              <tr align="center">
48                  <td>
49                      ${ maps.totalCount -
50                          ((maps.pageNum-1) * maps.pageSize) + loop.index)}
51                  </td>
52                  <td align="left">
53                      <a href="./view.do?idx=${ row.idx }">${ row.title }</a>
54                  </td>
55                  <td>${ row.name }</td>
56                  <td>${ row.visitcount }</td>
57                  <td>${ row.postdate }</td>
58              </tr>
59          </c:forEach>
60      </c:otherwise>
61  </c:choose>
62  </table>
63

```



```

64      <!-- 하단 메뉴(바로가기, 글쓰기) -->
65      <table border="1" width="90%">
66          <tr align="center">
67              <td>
68                  ${ pagingImg }
69              </td>
70              <td width="100"><button type="button"
71                  onclick="location.href='./write.do';">글쓰기</button></td>
72          </tr>
73      </table>
74 </body>
75 </html>

```

```

<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ taglib prefix="c" uri="jakarta.tags.core" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Mybatis게시판</title>
</head>
<body>
    <h2>게시판 목록(Mybatis)</h2>
    <!-- 검색 폼 -->
    <form method="get">
    <table border="1" width="90%">
    <tr>
    <td align="center">
        <select name="searchField">
            <option value="title">제목</option>
            <option value="content">내용</option>
        </select>
        <input type="text" name="searchKeyword" />
        <input type="submit" value="검색하기" />
    </td>
    </tr>
    </table>
    </form>

    <!-- 목록 테이블 -->
    <table border="1" width="90%">

```

```

<tr>
  <th width="10%">번호</th>
  <th width="*">제목</th>
  <th width="15%">작성자</th>
  <th width="10%">조회수</th>
  <th width="15%">작성일</th>
</tr>
<c:choose>
  <c:when test="${ empty lists }">
    <tr>
      <td colspan="5" align="center">
        등록된 게시물이 없습니다^^*
      </td>
    </tr>
  </c:when>
  <c:otherwise>
    <c:forEach items="${ lists }" var="row" varStatus="loop">
      <tr align="center">
        <td>
          <!-- 게시물의갯수, 페이지번호, 페이지사이즈를 통해 가상번호를 계산해서
          출력한다. -->
          ${ maps.totalCount -
            (((maps.pageNum-1) * maps.pageSize)  + loop.index)}
        </td>
        <td align="left">
          <a href="/view.do?idx=${ row.idx }">${ row.title }</a>
        </td>
        <td>${ row.name }</td>
        <td>${ row.visitcount }</td>
        <td>${ row.postdate }</td>
      </tr>
    </c:forEach>
  </c:otherwise>
</c:choose>
</table>

<!-- 하단 메뉴(바로가기, 글쓰기) -->
<table border="1" width="90%">
  <tr align="center">

```

```
<td>
    ${ pagingImg }
</td>
<td width="100"><button type="button"
    onclick="location.href='./write.do';">글쓰기</button></td>
</tr>
</table>
</body>
</html>
```