

게시판 만들기

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BoardDTO

```
package org.zerock.b1.dto;

import lombok.AllArgsConstructor;
import lombok.Builder;
import lombok.Data;
import lombok.NoArgsConstructor;
import org.zerock.b1.dao.BoardDAO;

import java.sql.Timestamp;

@Data
@Builder
@AllArgsConstructor
@NoArgsConstructor
public class BoardDTO {

    private Long bno;
    private String title, content, writer;
    private Timestamp regdate, moddate;
    private Integer count;

}
```

화면구현

List

번호	제목	작성자	작성일	조회수
1	뭐먹을까	aaa	2021-08-17 15:01:17.0 0	
2	뭐먹을까	aaa	2021-08-17 16:21:34.0 0	
3	aaaa	fff	2021-08-17 17:43:21.0 0	

글쓰기

Write

등록

BoardDAO

```
@Log4j2
public enum BoardDAO {
    INSTANCE;

    private static final String SQL_INSERT = "insert into tbl_board (title, content, writer) values (?, ?, ?)";

    private static final String SQL_LIST = "select bno, title, writer, regdate, count from tbl_board";

    private static final String SQL_SELECT = "select bno, title, content, writer, regdate, moddate, count from tbl_board where bno=?";
    private static final String SQL_UPDATE_OPEN = "update tbl_board set opendate = now() where bno = ?";

    public BoardDTO select(Long bno) throws RuntimeException {

        BoardDTO boardDTO = BoardDTO.builder().build();

        new JdbcTemplate() {
            @Override
            protected void execute() throws Exception {

                preparedStatement = connection.prepareStatement(SQL_UPDATE_OPEN);
                preparedStatement.setLong( parameterIndex: 1, bno);

                preparedStatement.executeUpdate();

                preparedStatement.close();
                preparedStatement = null;

                preparedStatement = connection.prepareStatement(SQL_SELECT);
                preparedStatement.setLong( parameterIndex: 1, bno);
                resultSet = preparedStatement.executeQuery();

                resultSet.next();
            }
        }.makeAll();

        return boardDTO;
    }

    public void insert(BoardDTO boardDTO) throws RuntimeException {

        new JdbcTemplate() {
            @Override
            protected void execute() throws Exception {

                preparedStatement = connection.prepareStatement(SQL_INSERT);
                preparedStatement.setString( parameterIndex: 1, boardDTO.getTitle());
                preparedStatement.setString( parameterIndex: 2, boardDTO.getContent());
                preparedStatement.setString( parameterIndex: 3, boardDTO.getWriter());

                preparedStatement.executeUpdate();

            }
        }.makeAll();
    }

    public ArrayList<BoardDTO> selectList() throws RuntimeException {

        ArrayList<BoardDTO> boardArr = new ArrayList<>();

        new JdbcTemplate() {
            @Override
            protected void execute() throws Exception {

                preparedStatement = connection.prepareStatement(SQL_LIST);

                resultSet = preparedStatement.executeQuery();

                log.info(resultSet);
                while (resultSet.next()) {

                    ArrayList<BoardDTO> boardDTOS = new ArrayList<>();

                    //bno, title, writer, regdate, count
                    boardArr.add(BoardDTO.builder()
                        .bno(resultSet.getLong( columnIndex: 1))
                        .title(resultSet.getString( columnIndex: 2))
                        .writer(resultSet.getString( columnIndex: 3))
                        .regdate(resultSet.getTimestamp( columnIndex: 4))
                        .count(resultSet.getInt( columnIndex: 5))
                        .build());
                }
            }
        }.makeAll();

        return boardArr;
    }
}
```

```
//bno, title, content, writer, regdate
//moddate, count
boardDTO.setBno(resultSet.getLong( columnIndex: 1));
boardDTO.setTitle(resultSet.getString( columnIndex: 2));
boardDTO.setContent(resultSet.getString( columnIndex: 3));
boardDTO.setWriter(resultSet.getString( columnIndex: 4));
boardDTO.setRegdate(resultSet.getTimestamp( columnIndex: 5));

boardDTO.setModdate(resultSet.getTimestamp( columnIndex: 6));
boardDTO.setCount(resultSet.getInt( columnIndex: 6));

}

}.makeAll();

return boardDTO;
}
```

```
public void insert(BoardDTO boardDTO) throws RuntimeException {

    new JdbcTemplate() {
        @Override
        protected void execute() throws Exception {

            preparedStatement = connection.prepareStatement(SQL_INSERT);
            preparedStatement.setString( parameterIndex: 1, boardDTO.getTitle());
            preparedStatement.setString( parameterIndex: 2, boardDTO.getContent());
            preparedStatement.setString( parameterIndex: 3, boardDTO.getWriter());

            preparedStatement.executeUpdate();

        }
    }.makeAll();
}
```

```
protected void execute() throws Exception {

    preparedStatement = connection.prepareStatement(SQL_INSERT);
    preparedStatement.setString( parameterIndex: 1, boardDTO.getTitle());
    preparedStatement.setString( parameterIndex: 2, boardDTO.getContent());
    preparedStatement.setString( parameterIndex: 3, boardDTO.getWriter());

    preparedStatement.executeUpdate();

}

}.makeAll();
}
```

```
public ArrayList<BoardDTO> selectList() throws RuntimeException {

    ArrayList<BoardDTO> boardArr = new ArrayList<>();

    new JdbcTemplate() {
        @Override
        protected void execute() throws Exception {

            preparedStatement = connection.prepareStatement(SQL_LIST);

            resultSet = preparedStatement.executeQuery();

            log.info(resultSet);
            while (resultSet.next()) {

                ArrayList<BoardDTO> boardDTOS = new ArrayList<>();

                //bno, title, writer, regdate, count
                boardArr.add(BoardDTO.builder()
                    .bno(resultSet.getLong( columnIndex: 1))
                    .title(resultSet.getString( columnIndex: 2))
                    .writer(resultSet.getString( columnIndex: 3))
                    .regdate(resultSet.getTimestamp( columnIndex: 4))
                    .count(resultSet.getInt( columnIndex: 5))
                    .build());
            }
        }
    }.makeAll();

    return boardArr;
}
```

controller

ReadController

```
package org.zerock.b1.controller;

import ...

@Log4j2
@WebServlet(name = "ReadController", value = "/ReadController")
public class ReadController extends HttpServlet {
    @Override
    @RequestMapping
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

        Long bno = Long.parseLong(request.getParameter("bno"));

        BoardDTO boardDTO = BoardService.INSTANCE.read(bno);

        request.setAttribute("dto", boardDTO);

        request.getRequestDispatcher("/WEB-INF/board/read.jsp").forward(request, response);
    }
}
```

ListController

```
import java.util.Map;

@Log4j2
@WebServlet(name = "ListController", value = "/board/list")
public class ListController extends HttpServlet {

    @Override
    @RequestMapping
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

        log.info("list controller doGet.....");

        ArrayList<BoardDTO> result = BoardService.INSTANCE.getList();

        request.setAttribute("bno", result);

        request.getRequestDispatcher("/WEB-INF/board/list.jsp").forward(request, response);
    }
}
```

controller

WriteController

```
package org.zerock.b1.controller;

import ..

@Log4j2
@WebServlet(name = "WriteController", value = "/board/write")
public class WriteController extends HttpServlet {

    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

        log.info("등록 화면 조회");

        request.getRequestDispatcher( path: "/WEB-INF/board/write.jsp")
            .forward(request, response);
    }

    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {

        request.setCharacterEncoding("UTF-8");

        String title = request.getParameter( name: "title");
        String content = request.getParameter( name: "content");
        String writer = request.getParameter( name: "writer");

        log.info("title " + title);
        log.info("content " + content);
        log.info("writer " + writer);

        BoardDTO boardDTO = BoardDTO.builder().title(title).content(content).writer(writer).build();

        BoardService.INSTANCE.register(boardDTO);

        response.sendRedirect( location: "/board/list");
    }
}
```

service

```
package org.zerock.b1.service;

import ...

@Log4j2
public enum BoardService {

    INSTANCE;

    public void register(BoardDTO boardDTO) throws RuntimeException {

        log.info("service register....." + boardDTO);

        BoardDAO.INSTANCE.insert(boardDTO);

    }

    public BoardDTO read(Long bno) throws RuntimeException {

        return BoardDAO.INSTANCE.select(bno);

    }

    public ArrayList<BoardDTO> getList() throws RuntimeException {

        long start = System.currentTimeMillis();

        ArrayList<BoardDTO> result = BoardDAO.INSTANCE.selectList();

        long end = System.currentTimeMillis();

        log.info("TIME: " + (end - start));

        return result;

    }

}
```