의료이력 관리 프로그램 기획의도와 개발 코드

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1. 프로젝트 주제

환자 관리 프로그램

Patient management.

Patient care.

2. 프로젝트 개요

환자들의 정보를 자료화 하여 정리할 수 있는 프로그램이다.

여러 데이터를 취합하여 차트로 만들어 가독성을 높여 준다.

환자들에 연령, 병명, 진료이력 등을 기록하고 관련된 사항 등을 정리하여 자료화 시키고 필요할 때 마다 열람 한다.

환자들의 재방문을 고려해 정보들을 데이터화 하여 보다 효과적으로 업무처리 할 수 있게 도와준다.

3. 구현 기능(기능 소개)

- 환자의 성명, 생년월일, 전화번호, 병명, 진료 내역 기록
- 환자의 담당의사, 담당 간호사 기록
- 의사, 간호사 별 담당 환자들을 별도 검색
- 월 별 접수된 환자의 수, 여러 종류의 병을 차트화
- 생년월일로 연령을 파악하고 데이터 정렬
- 환자 재방문 시 환자 이름을 검색하여 이전 기록 열람
- 병원근로자 직원 관리 기능 추가
- 원장님들을 위한 주가 차트 제공 등등

4. 기대효과

여러 병원에서 환자를 보다 수월하고 편리하게 관리 할 수 있으며 환자들의 정보, 진료이력, 과거병력 등을 화면상에 출력해준다.

전체적인 환자들에 연령, 병명 등을 데이터화 시켜 월 별 자료 정리가 용이하게 해준다.

병원에서 일하는 근로자들의 담당 환자들을 보다 쉽게 정리 할 수 있다.

병원 근로자들을 정렬하고 관리 할 수 있다.

5. 개발 소스

```
package kr.ac.inha.board.board.controller;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestParam;
import org.springframework.web.bind.annotation.ResponseBody;
import org.springframework.web.servlet.ModelAndView;
import kr.ac.inha.board.board.dto.BoardDto;
import kr.ac.inha.board.board.dto.ReplyDto;
import kr.ac.inha.board.board.service.BoardService;
@Controller
public class BoardController {
@Autowired
private BoardService;
@RequestMapping("/board/openBoardListt.do")
public ModelAndView openBoardList() throws Exception {
ModelAndView mv = new ModelAndView("/board/boardList");
//List<BoardDto> list = boardService.selectBoardList();
//mv.addObject("list", list);
return mv;
@RequestMapping("/board/boardList.ajax")
@ResponseBody
public List<BoardDto>boardListAjax() throws Exception {
List<BoardDto> list = boardService.selectBoardList();
return list;
```

```
@RequestMapping("/board/openBoardWrite.do")
public String openBoardWrite() throws Exception {
return "/board/boardWrite";
@RequestMapping("/board/insertBoard.do")
public String insertBoard(BoardDto board) throws Exception {
boardService.insertBoard(board);
return "redirect:/board/openBoardListt.do";
@RequestMapping("/board/openBoardDetail.do")
public ModelAndView openBoardDetail(@RequestParam int boardIdx) throws Exception {
ModelAndView mv = new ModelAndView("/board/boardDetail");
BoardDto board = boardService.selectBoardDetail(boardIdx);
mv.addObject("board", board);
List<ReplyDto> replyList = boardService.selectReplyList(boardIdx);
mv.addObject("replyList", replyList);
return mv;
@RequestMapping("/board/updateBoard.do")
public String updateBoard(BoardDto board) throws Exception {
boardService.updateBoard(board);
return "redirect:/board/openBoardListt.do";
@RequestMapping("/board/deleteBoard.do")
public String deleteBoard(int boardIdx) throws Exception {
boardService.deleteBoard(boardIdx);
return "redirect:/board/openBoardListt.do";
@RequestMapping("/board/bootstrap.do")
public String bootstrap() throws Exception {
return "/board/bootstrap";
```

```
// 여기서 부터 Reply 컨트롤러
@RequestMapping("/board/openReplyList.do")
public ModelAndView openReplyList(int boardIdx) throws Exception {
ModelAndView mv = new ModelAndView("/board/boardDetail");
List<ReplyDto> list = boardService.selectReplyList(boardIdx);
mv.addObject("reply", list);
return mv;
// Reply 작성
@RequestMapping("/board/openReplyWrite.do")
public ModelAndView openReplyWrite(@RequestParam int boardIdx) throws Exception {
ModelAndView mv = new ModelAndView("/board/replyWrite");
mv.addObject("boardIdx", boardIdx);
return mv;
// Reply 등록
@RequestMapping("/board/insertReply.do")
public String insertReply(ReplyDto board) throws Exception {
boardService.insertReply(board);
return "redirect:/board/openBoardDetail.do?boardIdx=" + board.getBoardIdx();
// Reply 상세창
@RequestMapping("/board/openReplyDetail.do")
public ModelAndView openReplyDetail(@RequestParam int replyNo) throws Exception {
ModelAndView mv = new ModelAndView("/board/replyDetail");
ReplyDto board = boardService.selectReplyDetail(replyNo);
mv.addObject("board", board);
return mv;
```

```
// Reply 수정
@RequestMapping("/board/updateReply.do")
public String updateReply(ReplyDto reply) throws Exception {
int boardIdx = getBoardIdxByReplyNo(reply.getReplyNo());
boardService.updateReply(reply);
return "redirect:/board/openBoardDetail.do?boardIdx=" + boardIdx;
private int getBoardIdxByReplyNo(int replyNo) throws Exception {
ReplyDto reply = boardService.selectReplyDetail(replyNo);
int boardIdx = reply.getBoardIdx();
return boardIdx;
// Reply 삭제
@RequestMapping("/board/deleteReply.do")
public String deleteReply(int replyNo) throws Exception {
int boardIdx = getBoardIdxByReplyNo(replyNo);
boardService.deleteReply(replyNo);
return "redirect:/board/openBoardDetail.do?boardIdx=" + boardIdx;
```

```
package kr.ac.inha.board.board.controller;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestParam;
import org.springframework.web.bind.annotation.ResponseBody;
import org.springframework.web.servlet.ModelAndView;
import kr.ac.inha.board.board.dto.StaffDto;
import kr.ac.inha.board.board.service.StaffService;
@Controller
public class StaffController {
@Autowired
private StaffService;
//직원 리스트
@RequestMapping("/board/openStaffListt.do")
public ModelAndView openStaffList() throws Exception {
ModelAndView mv = new ModelAndView("/board/StaffList");
return mv;
@RequestMapping("/board/staffList.ajax")
@ResponseBody
public List<StaffDto>staffListAjax() throws Exception {
List<StaffDto> list = staffService.selectStaffList();
return list;
@RequestMapping("/board/openStaffWrite.do")
public String openStaffWrite() throws Exception {
return "/board/staffWrite";
```

```
@RequestMapping("/board/insertStaff.do")
public String insertStaff(StaffDto board) throws Exception {
staffService.insertStaff(board);
return "redirect:/board/openStaffListt.do";
@RequestMapping("/board/openStaffDetail.do")
public ModelAndView openStaffDetail(@RequestParam int staffNo) throws Exception {
ModelAndView mv = new ModelAndView("/board/staffDetail");
StaffDto board = staffService.selectStaffDetail(staffNo);
mv.addObject("board", board);
return mv;
@RequestMapping("/board/updateStaff.do")
public String updateStaff(StaffDto staff) throws Exception {
staffService.updateStaff(staff);
return "redirect:/board/openStaffListt.do";
@RequestMapping("/board/deleteStaff.do")
public String deleteStaff(int staffNo) throws Exception {
staffService.deleteStaff(staffNo);
return "redirect:/board/openStaffListt.do";
```

```
package kr.ac.inha.board.board.dto;
import lombok.Data;
@Data
public class BoardDto {
private int boardIdx;
private String title;
private String disease;
private String contents;
private String clinic;
private String money;
private String birth;
private int hitCnt;
private int replyCnt;
private String createdDatetime;
private String creatorId;
private String doctor;
private String nurse;
private String updateDatetime;
private String updaterId;
private String deletedYn;
```

```
package kr.ac.inha.board.board.dto;
import lombok.Data;
@Data
public class ReplyDto {
  private int replyNo;
  private String replyMemo;
  private String createdDatetime;
  private String creatorId;
}
```

```
package kr.ac.inha.board.board.dto;
import lombok.Data;
@Data
public class StaffDto {
private int staffNo;
private String name;
private String birth;
private String Phone;
private String date;
private String contents;
private int hitCnt;
private String createdDatetime;
private String creatorId;
private String updateDatetime;
private String updaterId;
private String deletedYn;
```

BoardMapper.java

```
package kr.ac.inha.board.board.mapper;
import java.util.List;
import org.apache.ibatis.annotations.Mapper;
import kr.ac.inha.board.board.dto.BoardDto;
@Mapper
public interface BoardMapper {
List<BoardDto> selectBoardList() throws Exception;
void insertBoard(BoardDto board) throws Exception;
BoardDto selectBoardDetail(int boardIdx) throws Exception;
void updateHitCount(int boardIdx) throws Exception;
void updateBoard(BoardDto board) throws Exception;
void deleteBoard(int boardIdx) throws Exception;
void addReplyCount(int boardIdx) throws Exception;
void minusReplyCount(int boardIdx) throws Exception;
```

ReplyMapper.java

```
package kr.ac.inha.board.board.mapper;
import java.util.List;
import org.apache.ibatis.annotations.Mapper;
import org.apache.ibatis.annotations.Param;
import kr.ac.inha.board.board.dto.ReplyDto;
@Mapper
public interface ReplyMapper {
List<ReplyDto> selectReplyList(int boardIdx) throws Exception;
void insertReply(ReplyDto board) throws Exception;
ReplyDto selectReplyDetail(int replyNo) throws Exception;
void updateReplyCount(@Param("boardIdx") int boardIdx, @Param("interval") int interval) throws Exception;
void updateReply(ReplyDto reply) throws Exception;
void deleteReply(int replyNo) throws Exception;
```

StaffMapper.java

```
package kr.ac.inha.board.board.mapper;
import java.util.List;
import org.apache.ibatis.annotations.Mapper;
import kr.ac.inha.board.board.dto.StaffDto;
@Mapper
public interface StaffMapper {
List<StaffDto> selectStaffList() throws Exception;
void insertStaff(StaffDto board) throws Exception;
StaffDto selectStaffDetail(int staffNo) throws Exception;
void updateHitCount(int staffNo) throws Exception;
void updateStaff(StaffDto staff) throws Exception;
void deleteStaff(int staffNo) throws Exception;
void addReplyCount(int staffNo) throws Exception;
void minusReplyCount(int staffNo) throws Exception;
```

BoardService.java

```
package kr.ac.inha.board.board.service;
import java.util.List;
import kr.ac.inha.board.board.dto.BoardDto;
import kr.ac.inha.board.board.dto.ReplyDto;
public interface BoardService {
List<BoardDto> selectBoardList() throws Exception;
void insertBoard(BoardDto board) throws Exception;
BoardDto selectBoardDetail(int boardIdx ) throws Exception;
void updateBoard(BoardDto board ) throws Exception;
void deleteBoard(int boardIdx ) throws Exception;
List<ReplyDto> selectReplyList(int boardIdx) throws Exception;
void insertReply(ReplyDto board) throws Exception;
ReplyDto selectReplyDetail(int replyNo) throws Exception;
void updateReply(ReplyDto reply) throws Exception;
void deleteReply(int replyNo ) throws Exception;
```

BoardServiceImpl.java (PPT 36,37,38번 페이지 전부 BoardServiceImpl)

```
package kr.ac.inha.board.board.service;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import kr.ac.inha.board.board.dto.BoardDto;
import kr.ac.inha.board.board.dto.ReplyDto;
import kr.ac.inha.board.board.mapper.BoardMapper;
import kr.ac.inha.board.board.mapper.ReplyMapper;
@Service
public class BoardServiceImpl implements BoardService {
@Autowired
private BoardMapper boardMapper;
@Autowired
private ReplyMapper replyMapper;
@Override
public List<BoardDto> selectBoardList() throws Exception {
List<BoardDto> selectBoardList = boardMapper.selectBoardList();
for (BoardDto count : selectBoardList) {
System.out.println(count.getTitle());
return selectBoardList;
@Override
public void insertBoard(BoardDto board) throws Exception {
boardMapper.insertBoard(board);
```

BoardServiceImpl.java (PPT 36,37,38번 페이지 전부 BoardServiceImpl)

```
@Override
public BoardDto selectBoardDetail(int boardIdx) throws Exception {
BoardDto board = boardMapper.selectBoardDetail(boardIdx);
boardMapper.updateHitCount(boardIdx);
return board;
@Override
public void updateBoard(BoardDto board) throws Exception {
boardMapper.updateBoard(board);
@Override
public void deleteBoard(int boardIdx) throws Exception {
boardMapper.deleteBoard(boardIdx);
// 여기서부터 Reply serviceImpl
@Override
public List<ReplyDto> selectReplyList(int boardIdx) throws Exception {
return replyMapper.selectReplyList(boardIdx);
@Override
public void insertReply(ReplyDto board) throws Exception {
replyMapper.insertReply(board);
boardMapper.addReplyCount(board.getBoardIdx());
@Override
public ReplyDto selectReplyDetail(int replyNo) throws Exception {
return replyMapper.selectReplyDetail(replyNo);
```

BoardServiceImpl.java (PPT 36,37,38번 페이지 전부 BoardServiceImpl)

```
@Override
public void updateReply(ReplyDto reply) throws Exception {
replyMapper.updateReply(reply);
}

@Override
public void deleteReply(int replyNo) throws Exception {
ReplyDto board = replyMapper.selectReplyDetail(replyNo);
replyMapper.deleteReply(replyNo);
boardMapper.minusReplyCount(board.getBoardIdx());
}
```

StaffService.java

```
package kr.ac.inha.board.board.service;
import java.util.List;
import kr.ac.inha.board.board.dto.StaffDto;
public interface StaffService {
  List<StaffDto> selectStaffList() throws Exception;
  void insertStaff(StaffDto board) throws Exception;
  StaffDto selectStaffDetail(int staffNo ) throws Exception;
  void updateStaff(StaffDto staff ) throws Exception;
  void deleteStaff(int staffNo ) throws Exception;
```

```
package kr.ac.inha.board.board.service;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import kr.ac.inha.board.board.dto.StaffDto;
import kr.ac.inha.board.board.mapper.StaffMapper;
@Service
public class StaffServiceImpl implements StaffService {
@Autowired
private StaffMapper staffMapper;
//Staff
@Override
public List<StaffDto> selectStaffList() throws Exception {
List<StaffDto> selectStaffList = staffMapper.selectStaffList();
for (StaffDto count : selectStaffList) {
System.out.println(count.getName());
return selectStaffList;
@Override
public void insertStaff(StaffDto board) throws Exception {
staffMapper.insertStaff(board);
```

StaffServiceImpl.java (PPT 40,41번 페이지 전부 StaffServiceImpl)

```
@Override
public StaffDto selectStaffDetail(int staffNo) throws Exception {
    StaffDto board = staffMapper.selectStaffDetail(staffNo);
    staffMapper.updateHitCount(staffNo);

return board;
}

@Override
public void updateStaff(StaffDto staff) throws Exception {
    staffMapper.updateStaff(staff);
}

@Override
public void deleteStaff(int staffNo) throws Exception {
    staffMapper.deleteStaff(staffNo);
}
```

ChartController.java

```
package kr.ac.inha.board.chart.controller;
import java.sql.Timestamp;
import java.util.List;
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.RequestMapping:
import org.springframework.web.bind.annotation.ResponseBody;
import org.springframework.web.servlet.ModelAndView;
import kr.ac.inha.board.chart.dto.StockDto;
import kr.ac.inha.board.chart.service.ChartService;
@Controller
public class ChartController {
Logger log = LoggerFactory.getLogger(this.getClass());
@Autowired
private ChartService chartService:
@RequestMapping("/chart/chartJs.do")
public ModelAndView chartJs() throws Exception {
ModelAndView mv = new ModelAndView("/chart/chartJs");
mv.addObject("timestamp", new Timestamp(System.currentTimeMillis()));
return mv:
@RequestMapping("/chart/amchart.do")
public ModelAndView amchart() throws Exception {
ModelAndView mv = new ModelAndView("/chart/amchart");
mv.addObject("timestamp", new Timestamp(System.currentTimeMillis()));
return mv;
@RequestMapping("/chart/stockList.ajax")
@ResponseBody
public List<StockDto> stockList(String jongmokCode) throws Exception {
List<StockDto> list = chartService.selectStockByJongmok(jongmokCode);
return list;
```

StockDto.java

```
package kr.ac.inha.board.chart.dto;
import lombok.Data;
@Data
public class StockDto {
  private String jongmokCode;
  private String date;
  private int open;
  private int high;
  private int low;
  private int close;
  private long volume;
}
```

ChartMapper.java

```
package kr.ac.inha.board.chart.mapper;
import java.util.List;
import org.apache.ibatis.annotations.Mapper;
import kr.ac.inha.board.chart.dto.StockDto;
@Mapper
public interface ChartMapper {
List<StockDto> selectStockByJongmok(String jongmokCode) throws Exception;
}
```

ChartService.java

```
package kr.ac.inha.board.chart.service;
import java.util.List;
import kr.ac.inha.board.chart.dto.StockDto;
public interface ChartService {
  List<StockDto> selectStockByJongmok(String jongmokCode) throws Exception;
}
```

ChartServiceImpl.java

```
package kr.ac.inha.board.chart.service;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import kr.ac.inha.board.chart.dto.StockDto;
import kr.ac.inha.board.chart.mapper.ChartMapper;
@Service
public class ChartServiceImpl implements ChartService{
@Autowired
private ChartMapper chartMapper;
@Override
public List<StockDto> selectStockByJongmok(String jongmokCode) throws Exception {
return chartMapper.selectStockByJongmok(jongmokCode);
```

```
package kr.ac.inha.board.login.controller;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.RequestBody;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestMethod;
import org.springframework.web.bind.annotation.ResponseBody;
import org.springframework.web.servlet.ModelAndView;
import com.fasterxml.jackson.databind.ObjectMapper;
import kr.ac.inha.board.login.dto.MembersDto;
import kr.ac.inha.board.login.dto.RegistDto;
import kr.ac.inha.board.login.dto.ResultDto;
import kr.ac.inha.board.login.service.LoginService;
import lombok.extern.slf4j.Slf4j;
@Slf4j
@Controller
public class LoginController {
@Autowired
private LoginService loginService;
@RequestMapping("/login/login.do")
public ModelAndView login() throws Exception {
ModelAndView mv = new ModelAndView("board/login/login");
return mv;
@RequestMapping("/login/register.do")
public ModelAndView register() throws Exception {
ModelAndView mv = new ModelAndView("board/login/register");
return mv;
```

```
@RequestMapping(value="/login/register.ajax", method=RequestMethod.POST, produces = "application/json; charset=utf8")
@ResponseBody
public String saveRegisterInfo(@RequestBody RegistDto mbr) throws Exception{
ObjectMapper mapper = new ObjectMapper();
ResultDto result = new ResultDto();
Log.info(mbr.toString());
String rtn = loginService.saveRegisterInfo(mbr);
if (rtn.equals("Ok")) {
result.setStatus("Ok");
result.setErrMsg("");
else {
result.setStatus("Error");
result.setErrMsg(rtn);
String jsonString = mapper.writeValueAsString(result);
log.info("result = " + result);
return jsonString;
```

```
@RequestMapping(value="/login/certification.do", method=RequestMethod.GET)
@ResponseBody
public ModelAndView certification(MembersDto mbr) throws Exception{
ModelAndView mv = null;
Log.info(mbr.toString());
String rtn = loginService.saveCertification(mbr);
if (rtn.equals("Ok")) {
mv = new ModelAndView("board/login/welcome");
else {
mv = new ModelAndView("board/login/denied");
mv.addObject("errMsg", rtn);
log.info("result = " + rtn);
return mv;
```

```
package kr.ac.inha.board.login.dto;
import lombok.Data;

@Data
public class MembersDto {
  private String userNo;
  private String userId;
  private String userPass;
  private String firstName;
  private String lastName;
  private String roleName;
  private String enabled;
  private String registDate;
  private String certificationDate;
}
```

```
package kr.ac.inha.board.login.dto;
import lombok.Data;
@Data
public class RegistDto {
  private String firstName;
  private String lastName;
  private String inputEmail;
  private String inputPassword;
  private String confirmPassword;
}
```

```
package kr.ac.inha.board.login.dto;
import lombok.Data;
@Data
public class ResultDto {
private String status;
private String errMsg;
}
```

LoginMapper.java

```
package kr.ac.inha.board.login.mapper;
import java.util.List;
import org.apache.ibatis.annotations.Mapper;
import kr.ac.inha.board.login.dto.MembersDto;

@Mapper
public interface LoginMapper {
  List<MembersDto> selectMembers(String userId) throws Exception;
  void insertMembers(MembersDto membersDto) throws Exception;
  void updateMembersCert(MembersDto membersDto) throws Exception;
}
```

LoginService.java

```
package kr.ac.inha.board.login.service;

import kr.ac.inha.board.login.dto.MembersDto;
import kr.ac.inha.board.login.dto.RegistDto;

public interface LoginService {
   String saveRegisterInfo(RegistDto mbr) throws Exception;
   String saveCertification(MembersDto mbr) throws Exception;
}
```

```
package kr.ac.inha.board.login.service;
import java.util.List;
import java.util.regex.Matcher;
import java.util.regex.Pattern;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.mail.javamail.JavaMailSender;
import org.springframework.stereotype.Service;
import kr.ac.inha.board.login.dto.MembersDto;
import kr.ac.inha.board.login.dto.RegistDto;
import kr.ac.inha.board.login.mapper.LoginMapper;
@Service
public class LoginServiceImpl implements LoginService {
@Autowired
private LoginMapper loginMapper;
@Autowired
private JavaMailSender emailSender;
@Override
public String saveRegisterInfo(RegistDto mbr) throws Exception {
    String emailRegExp =
            "^[ A-Za-z0-9-\\+]+(\\.[ A-Za-z0-9-]+)*@" +
            "[A-Za-z0-9-]+(\.[A-Za-z0-9]+)*(\.[A-Za-z]{2,})$";
    Pattern pattern:
    pattern = Pattern.compile(emailRegExp);
```

```
if (mbr.getFirstName() == null || mbr.getFirstName().trim().isEmpty()) {
return "이름(First Name)은 필수 정보 입니다.";
if (mbr.getLastName() == null || mbr.getLastName().trim().isEmpty()) {
return "성(Last Name)은 필수 정보 입니다.";
if (mbr.getInputEmail() == null || mbr.getInputEmail().trim().isEmpty()) {
return "이메일(Email address)은 필수 정보 입니다.";
else {
Matcher matcher = pattern.matcher(mbr.getInputEmail());
if (!matcher.matches()) {
return "이메일 형식이 올바르지 않습니다.":
if (mbr.getInputPassword() == null || mbr.getInputPassword().trim().isEmpty()) {
return "비밀번호(Password)은 필수 정보 입니다.";
if (mbr.getInputPassword().trim().length() < 8) {</pre>
return "비밀번호(Password)는 8자 이상 입력하세요.";
if (mbr.getConfirmPassword() == null || mbr.getConfirmPassword().trim().isEmpty()) {
return "비밀번호확인(Confirm password)은 필수 정보 입니다.":
if (!mbr.getInputPassword().equals(mbr.getConfirmPassword())) {
return "비밀번호가 일치하지 않습니다.";
```

```
// 등록상태 확인
List<MembersDto> membersList = loginMapper.selectMembers(mbr.getInputEmail());
if (!membersList.isEmpty()) {
MembersDto members = membersList.get(0);
if (members.getCertificationDate() == null || members.getCertificationDate().equals("")) {
return "이미 신청중인 상태이나 이메일 인증이 완료되지 않았습니다.\n발송된 이메일을 열어서 인증 처리하시기 바랍니다.";
else if (!members.getEnabled().equals("Y")) {
return "계정이 비활성(사용불가) 상태입니다.";
else {
return "이미 신청이 완료되었습니다.\n로그인 하셔서 사용하시기 바랍니다.";
// 계정 등록
MembersDto members = new MembersDto();
members.setUserId(mbr.getInputEmail());
members.setFirstName(mbr.getFirstName());
members.setLastName(mbr.getLastName());
members.setUserPass(mbr.getInputPassword());
loginMapper.insertMembers(members);
membersList = loginMapper.selectMembers(mbr.getInputEmail());
members = membersList.get(0);
```

```
// 이메일 발송
try {
String htmlStr = "<h2>"+members.getLastName() + members.getFirstName()+"님 안녕하세요.</h2>"
+ "<h3>사이트 로그인을 하시려면, 인증하기 버튼을 눌러서 인증 처리를 하시기 바랍니다. -&gt; "
+ "<a href='http://localhost:8080/login/certification.do?userNo="+members.getUserId="+ members.getUserId()
+"&userKey=18f198e0-92a9-447c-9adf-b93b4b578644'>[인증하기]</a>"
+ "(혹시 잘못 전달된 메일이라면 이 이메일을 무시하셔도 됩니다)</h3>";
 MailHandler mail = new MailHandler(emailSender);
 mail.setFrom("qkrgmldbs123@gmail.com", "xx병원");
 mail.setTo(mbr.getInputEmail());
 mail.setSubject("[본인인증] 회원가입 인증요청");
 mail.setText(htmlStr);
 mail.send();
} catch (Exception e) {
e.printStackTrace();
throw e;
return "Ok";
@Override
public String saveCertification(MembersDto mbr) throws Exception {
// 등록상태 확인
List<MembersDto> membersList = loginMapper.selectMembers(mbr.getUserId());
if (membersList.isEmpty()) {
return "신청한 내역이 존재하지 않습니다.":
```

LoginServiceImpl.java (PPT 51,52,53,54,55번 페이지 전부 LoginServiceImpl)

```
MembersDto members = membersList.get(0);
if (!members.getUserNo().equals(mbr.getUserNo())) {
return "신청한 계정 정보와 인증 정보가 불일치합니다.";
else if (members.getCertificationDate() != null && !members.getCertificationDate().equals("")) {
if (!members.getEnabled().equals("Y")) {
return "계정이 비활성(사용불가) 상태입니다.";
return "Ok";
else if (members.getEnabled().equals("Y") && members.getCertificationDate() != null) {
return "Ok";
// 계정 인증
loginMapper.updateMembersCert(members);
return "Ok";
```

```
package kr.ac.inha.board.login.service;
import java.io.File;
import java.io.UnsupportedEncodingException;
import javax.mail.MessagingException;
import javax.mail.internet.MimeMessage;
import javax.activation.DataSource;
import org.springframework.core.io.Resource;
import org.springframework.mail.javamail.JavaMailSender;
import org.springframework.mail.javamail.MimeMessageHelper;
public class MailHandler {
private JavaMailSender sender;
private MimeMessage message;
private MimeMessageHelper messageHelper;
// MailHandler의 생성자
public MailHandler(JavaMailSender iSender) throws MessagingException {
this.sender = jSender;
message = jSender.createMimeMessage();
messageHelper = new MimeMessageHelper(message, true, "UTF-8");
// MimeMessageHelper의 생성자 두번째 파라미터는 다수의 사람에게 보낼 수 있는 설정, 세번째는 기본 인코딩 방식
// 이 이메일이 누구로부터 가는가..
public void setFrom(String email, String name) throws UnsupportedEncodingException, MessagingException {
messageHelper.setFrom(email, name);
// 누구에게 보낼 것인가..
public void setTo(String email) throws MessagingException {
messageHelper.setTo(email);
```

```
// 보낼때 제목
public void setSubject(String subject) throws MessagingException {
messageHelper.setSubject(subject);
// 보낼 메일의 내용.. 두번째 파라미터는 html을 적용할 것인가 아닌가. true시 html형식으로 작성하면 html형식으로 보임..
public void setText(String text) throws MessagingException {
messageHelper.setText(text, true);
//addInline메서드는 간단한 첨부파일을 보내는데 사용..
public void addInline(String contentId, Resource resource) throws MessagingException {
messageHelper.addInline(contentId, resource);
public void addInline(String contentId, File file) throws MessagingException {
messageHelper.addInline(contentId, file);
public void addInline(String contentId, DataSource source) throws MessagingException {
messageHelper.addInline(contentId, source);
// 실제로 메일을 보내는 메서드..
public void send() {
try {
sender.send(message);
} catch (Exception e) {
e.printStackTrace();
```

```
package kr.ac.inha.board.security;
import javax.sql.DataSource;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.context.annotation.Bean;
import org.springframework.security.config.annotation.authentication.builders.AuthenticationManagerBuilder;
import org.springframework.security.config.annotation.web.builders.HttpSecurity;
import org.springframework.security.config.annotation.web.configuration.EnableWebSecurity;
import org.springframework.security.config.annotation.web.configuration.WebSecurityConfigurerAdapter;
import org.thymeleaf.extras.springsecurity5.dialect.SpringSecurityDialect;
import lombok.extern.slf4j.Slf4j;
@S1f4j
@EnableWebSecurity
public class SecurityConfig extends WebSecurityConfigurerAdapter {
@Autowired
DataSource dataSource;
@Override
protected void configure(HttpSecurity http) throws Exception {
log.info("security config....");
// @RequestMapping 별 권한제어
http.authorizeRequests().antMatchers("/board/login/**").permitAll();
http.authorizeRequests().antMatchers("/board/**").hasAnyRole("ADMIN", "USER", "GUEST");
http.authorizeRequests().antMatchers("/login/register.ajax").permitAll();
http.csrf().ignoringAntMatchers("/login/register.ajax").ignoringRequestMatchers();
```

```
// 사용자 정의 로그인 페이지
http.formLogin().loginPage("/login/login.do");
// 권한 없을때 띄울 페이지
// http.exceptionHandling().accessDeniedPage("/board/openBoardList3.do");
// 로그아웃시 지정 페이지로 이동
http.logout().logoutSuccessUrl("/board/openBoardListt.do").invalidateHttpSession(true);
@Autowired
public void configureGlobal(AuthenticationManagerBuilder auth) throws Exception {
//auth.inMemoryAuthentication().withUser("admin@inha.ac.kr").password("{noop}admin!123").roles("ADMIN");
//auth.inMemoryAuthentication().withUser("user@inha.ac.kr").password("{noop}user!123").roles("USER");
//auth.inMemoryAuthentication().withUser("guest@inha.ac.kr").password("{noop}guest!123").roles("GUEST");
String query1 = "SELECT user id username, CONCAT('{noop}', user pass) password, "
+ " CASE WHEN enabled = 'Y' THEN true else false END enabled" + " FROM members WHERE user id = ?";
String query2 = "SELECT user id, role name role" + " FROM members WHERE user id = ?";
auth.jdbcAuthentication().dataSource(dataSource).usersByUsernameQuery(query1).rolePrefix("ROLE ")
.authoritiesByUsernameOuery(guery2);
@Bean
public SpringSecurityDialect springSecurityDialect() {
return new SpringSecurityDialect();
```

sql-board.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="kr.ac.inha.board.board.mapper.BoardMapper">
<select id="selectBoardList"</pre>
resultType="kr.ac.inha.board.board.dto.BoardDto">
<![CDATA[
         SELECT
        board_idx,
        title,
        disease,
         birth.
         doctor,
         nurse,
         money,
hit_cnt,
reply_cnt,
DATE_FORMAT(created_datetime, '%Y-%m-%d %H:%i:%s') AS created_datetime
FROM
t_board
WHERE
deleted_yn = 'N'
          ORDER BY board_idx DESC
]]>
</select>
<insert id="insertBoard" parameterType="kr.ac.inha.board.board.dto.BoardDto" useGeneratedKeys="true" keyProperty="boardIdx">
<![CDATA[
INSERT INTO t_board
title,
disease.
birth,
doctor.
nurse,
money,
contents,
clinic,
created_datetime,
creator_id
VALUES
#{title},
#{disease},
#{birth},
#{doctor},
#{nurse},
#{money},
#{contents},
#{clinic},
NOW(),
'admin'
11>
</insert>
```

sql-board.xml

```
<select id="selectBoardDetail" parameterType="int"</pre>
resultType="kr.ac.inha.board.board.dto.BoardDto">
<![CDATA[
SELECT
board idx.
title,
disease,
birth,
contents,
clinic,
doctor.
nurse,
money,
hit_cnt,
reply_cnt,
DATE_FORMAT(created_datetime, '%Y.%m.%d %H:%i:%s') AS created_datetime,
creator_id
FROM
t board
WHERE
board_idx = #{boardIdx}
AND deleted_yn = 'N'
]]>
</select>
<update id="updateHitCount" parameterType="int">
<![CDATA[
UPDATE
t board
SET
hit_cnt = hit_cnt + 1
WHERE
board_idx = #{boardIdx}
11>
</update>
<update id="updateBoard"</pre>
parameterType="kr.ac.inha.board.board.dto.BoardDto">
<![CDATA[
UPDATE t_board
SET title = #{title},
disease = #{disease},
birth = #{birth},
doctor = #{doctor},
nurse = #{nurse},
money = #{money},
contents = #{contents},
clinic = #{clinic},
updated_datetime = Now(),
updater_id = 'admin'
WHERE
board_idx = #{boardIdx}
]]>
</update>
```

sql-board.xml

```
<delete id="deleteBoard" parameterType="int">
<![CDATA[
UPDATE t_board
SET deleted_yn = 'Y',
updated_datetime = NOW(),
updater_id= 'admin'
WHERE
board_idx = #{boardIdx}
</delete>
<update id="addRepLyCount" parameterType="int">
<![CDATA[
UPDATE
t_board
SET
reply_cnt = reply_cnt + 1
board_idx = #{boardIdx}
</update>
<update id="minusReplyCount" parameterType="int">
<![CDATA[
UPDATE
t_board
SET
reply_cnt = reply_cnt - 1
WHERE
board_idx = #{boardIdx}
11>
</update>
</mapper>
```

sql-login.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="kr.ac.inha.board.login.mapper.LoginMapper">
<select id="selectMembers" parameterType="String" resultType="kr.ac.inha.board.loain.dto.MembersDto">
SELECT user no,
   user id,
   user_pass,
   first name,
   last name,
   role name,
   enabled.
   DATE FORMAT(regist date, '%Y-%m-%d') regist date,
   DATE_FORMAT(certification_date, '%Y-%m-%d') certification_date
  FROM members
 WHERE user id = #{userId}
</select>
<insert id="insertMembers" parameterType="kr.ac.inha.board.loain.dto.MembersDto">
 INSERT INTO members
  (user id, user pass, first name, last name, role name, enabled, regist date. certification date)
VALUES (#{userId},
        #{userPass},
        #{firstName},
        #{lastName},
        'USER',
        'N',
        NOW(),
        null)
</insert>
<update id="updateMembersCert" parameterType="kr.ac.inha.board.login.dto.MembersDto">
 UPDATE members
    SET enabled = 'Y',
    certification date = NOW()
  WHERE user id = #{userId}
</update>
</mapper>
```

sql-reply.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="kr.ac.inha.board.board.mapper.ReplyMapper">
<select id="selectReplyList"</pre>
resultType="kr.ac.inha.board.board.dto.ReplyDto">
<![CDATA[
SELECT
reply no,
board idx,
reply memo,
DATE FORMAT(created datetime, '%Y-%m-%d %H:%i:%s') AS created datetime,
creator_id
FROM
t reply
WHERE
board idx = #{boardIdx}
ORDER BY created_datetime DESC
11>
</select>
<select id="selectReplyDetail"</pre>
resultType="kr.ac.inha.board.board.dto.ReplyDto">
<![CDATA[
SELECT
reply no,
board_idx,
reply_memo,
DATE FORMAT(created datetime, '%Y-%m-%d %H:%i:%s') AS created datetime,
creator id
FROM
t_reply
WHERE
reply_no = #{replyNo}
11>
</select>
```

sql-reply.xml

```
<insert id="insertReply"</pre>
parameterType="kr.ac.inha.board.board.dto.RepLyDto"
useGeneratedKeys="true" keyProperty="repLyNo">
<![CDATA[
INSERT INTO t reply
board_idx,
reply memo,
created datetime,
creator id
VALUES
#{boardIdx},
#{replyMemo},
NOW(),
'admin'
]]>
</insert>
<update id="updateReplyCount">
<![CDATA[
UPDATE t board
SET reply cnt = ifnull(reply cnt, 0) + #{interval}
WHERE board_idx = #{boardIdx}
]]>
</update>
<update id="updateReply"</pre>
parameterType="kr.ac.inha.board.board.dto.ReplyDto">
<![CDATA[
UPDATE t reply
SET reply_memo = #{replyMemo}
WHERE
reply_no = #{replyNo}
]]>
</update>
<delete id="deleteReply" parameterType="int">
<![CDATA[
DELETE FROM t_reply
WHERE reply_no = #{replyNo}
]]>
</delete>
</mapper>
```

sql-staff.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="kr.ac.inha.board.board.mapper.StaffMapper">
<select id="selectStaffList"</pre>
resultType="kr.ac.inha.board.board.dto.StaffDto">
<![CDATA[
         SELECT
        staff_no,
         name,
         birth,
         phone,
         date,
hit_cnt,
DATE_FORMAT(created_datetime, '%Y-%m-%d %H:%i:%s') AS created_datetime
FROM
t staff
WHERE
deleted_yn = 'N'
          ORDER BY staff no DESC
]]>
</select>
<insert id="insertStaff" parameterType="kr.ac.inha.board.board.dto.StaffDto" useGeneratedKeys="true" keyProperty="staffNo">
<![CDATA[
INSERT INTO t_staff
name,
birth,
phone,
date,
contents,
created_datetime,
creator_id
VALUES
#{name},
#{birth},
#{phone},
#{date},
#{contents},
NOW(),
'admin'
j]>
</insert>
```

sql-staff.xml

```
<select id="selectStaffDetail" parameterType="int"</pre>
resultType="kr.ac.inha.board.board.dto.StaffDto">
<![CDATA[
SELECT
staff_no,
name,
birth,
contents,
phone,
date,
hit_cnt,
DATE_FORMAT(created_datetime, '%Y.%m.%d %H:%i:%s') AS created_datetime,
creator_id
FROM
t staff
WHERE
staff_no = #{staffNo}
AND deleted_yn = 'N'
]]>
</select>
<update id="updateHitCount" parameterType="int">
<![CDATA[
UPDATE
t_staff
SET
hit_cnt = hit_cnt + 1
staff_no = #{staffNo}
]]>
</update>
<update id="updateStaff"</pre>
parameterType="kr.ac.inha.board.board.dto.StaffDto">
<![CDATA[
UPDATE t staff
SET name = #{name},
birth = #{birth},
phone = #{phone},
date = #{date},
contents = #{contents},
updated datetime = Now(),
updater_id = 'admin'
WHERE
staff_no = #{staffNo}
]]>
</update>
<delete id="deleteStaff" parameterType="int">
<![CDATA[
UPDATE t_staff
SET deleted_yn = 'Y',
updated datetime = NOW(),
updater_id= 'admin'
WHERE
staff_no = #{staffNo}
</delete>
</mapper>
```

sql-stock.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="kr.ac.inha.board.chart.mapper.ChartMapper">
<select id="selectStockByJongmok"</pre>
resultType="kr.ac.inha.board.chart.dto.StockDto">
<![CDATA[
SELECT jongmok code,
DATE FORMAT(date, '%Y-%m-%d') AS date,
`open`,
high,
low,
`close`,
volume
FROM stock
WHERE jongmok_code = #{jongmokCode}
AND date >= '2020-01-01'
ORDER BY `date`
11>
</select>
</mapper>
```

```
<!DOCTYPE html>
<html lang="en"
xmlns:th="http://www.thymeleaf.org"
xmlns:layout="http://www.ultrag.net.nz/thymeleaf/layout"
xmlns:sec="http://www.thymeleaf.org/extras/spring-security">
    <head>
       <meta charset="utf-8" />
       <meta http-equiv="X-UA-Compatible" content="IE=edge" />
       <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no" />
       <meta name="description" content="" />
       <meta name="author" content="" />
       <meta name=" csrf" th:content="${ csrf.token}"/>
<meta name=" csrf header" th:content="${ csrf.headerName}"/>
       <title layout:title-pattern="$LAYOUT_TITLE - $CONTENT_TITLE">xx병원</title>
       <link href="/css/styles.css" rel="stylesheet"/>
       < rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css">
       <link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.6.3/css/all.css">
    </head>
    <body>
       <nav class="sb-topnav navbar navbar-expand navbar-dark bg-dark">
           <!-- Navbar Brand-->
           <a class="navbar-brand ps-3" href="/board/openBoardListt.do">Patient care</a>
           <!-- Sidebar Toggle-->
           <button class="btn btn-link btn-sm order-1 order-lg-0 me-4 me-lg-0" id="sidebarToggle" href="#!"><i class="fas fa-bars"></i></button>
           <!-- Navbar Search-->
           <form class="d-none d-md-inline-block form-inline ms-auto me-0 me-md-3 my-2 my-md-0">
               <div class="input-group">
                  <input class="form-control" type="text" placeholder="Search for..." aria-label="Search for..." aria-describedby="btnNavbarSearch" />
                  <button class="btn btn-primary" id="btnNavbarSearch" type="button"><i class="fas fa-search"></i></button>
               </div>
           </form>
           <!-- Navbar-->
           <!--ul class="navbar-nav ms-auto ms-md-0 me-3 me-lg-4">
               <a class="nav-link dropdown-toggle" id="navbarDropdown" href="#" role="button" data-bs-toggle="dropdown" aria-expanded="false"><i class="fas fa-user fa-fw"></i></a>
                  <a class="dropdown-item" href="#!">Settings</a>
                      <a class="dropdown-item" href="#!">Activity Log</a>
                      <hr class="dropdown-divider" />
                      <a class="dropdown-item" href="#!">Logout</a>
           <button sec:authorize="isAnonymous()" type="button" id="goLogin"</pre>
class="btn btn-success btn-sm">로그인</button>
<button sec:authorize="not isAnonymous()" type="button" id="goLogout"</pre>
class="btn btn-success btn-sm">로그아웃</button>
 </nav>
```

```
<div id="layoutSidenav">
            <div id="layoutSidenav nav">
                <nav class="sb-sidenav accordion sb-sidenav-dark" id="sidenavAccordion">
                   <div class="sb-sidenav-menu">
                        <div class="nav">
                           <!--div class="sb-sidenav-menu-heading">Core</div>
                           <a class="nav-link" href="index.html">
                               <div class="sb-nav-link-icon"><i class="fas fa-tachometer-alt"></i></div>
                           </a>
                           <div class="sb-sidenav-menu-heading">Interface</div>
                           <a class="nav-link collapsed" href="#" data-bs-toggle="collapse" data-bs-target="#collapseLayouts" aria-expanded="false" aria-controls="collapseLayouts">
                               <div class="sb-sidenav-collapse-arrow"><i class="fas fa-angle-down"></i></div>
                           <div class="collapse" id="collapseLayouts" aria-labelledby="headingOne" data-bs-parent="#sidenavAccordion">
                               <nav class="sb-sidenav-menu-nested nav">
                                   <a class="nav-link" href="layout-static.html">Static Navigation</a>
                                   <a class="nav-link" href="layout-sidenav-light.html">Light Sidenav</a>
                            <a class="nav-link collapsed" href="#" data-bs-toggle="collapse" data-bs-target="#collapsePages" aria-expanded="false" aria-controls="collapsePages">
                               <div class="sb-nav-link-icon"><i class="fas fa-book-open"></i></div>
                               <div class="sb-sidenav-collapse-arrow"><i class="fas fa-angle-down"></i></div>
                            </a-->
                            <div class="collapse" id="collapsePages" aria-labelledby="headingTwo" data-bs-parent="#sidenavAccordion">
                               <nav class="sb-sidenav-menu-nested nav accordion" id="sidenavAccordionPages">
                                    <a class="nav-link collapsed" href="#" data-bs-toggle="collapse" data-bs-target="#pagesCollapseAuth" aria-expanded="false" aria-controls="pagesCollapseAuth">
                                       Authentication
                                        <div class="sb-sidenav-collapse-arrow"><i class="fas fa-angle-down"></i></div>
                                    <div class="collapse" id="pagesCollapseAuth" aria-labelledby="headingOne" data-bs-parent="#sidenavAccordionPages">
                                       <nav class="sb-sidenav-menu-nested nav">
                                           <a class="nav-link" href="login.html">Login</a>
                                           <a class="nav-link" href="register.html">Register</a>
                                           <a class="nav-link" href="password.html">Forgot Password</a>
                                       </nav>
                                    </div>
                                    <a class="nav-link collapsed" href="#" data-bs-toggle="collapse" data-bs-target="#pagesCollapseError" aria-expanded="false" aria-controls="pagesCollapseError">
                                        <div class="sb-sidenav-collapse-arrow"><i class="fas fa-angle-down"></i></div>
                                    </a>
                                    <div class="collapse" id="pagesCollapseError" aria-labelledby="headingOne" data-bs-parent="#sidenavAccordionPages">
                                       <nav class="sb-sidenav-menu-nested nav">
                                           <a class="nav-link" href="401.html">401 Page</a>
                                           <a class="nav-link" href="404.html">404 Page</a>
                                           <a class="nav-link" href="500.html">500 Page</a>
                                       </nav>
                                    </div>
                               </nav>
                            <div class="sb-sidenav-menu-heading">Addons</div>
```

```
<a sec:authorize="hasAnyRole('USER', 'ADMIN')" class="nav-link" href="/board/openBoardListt.do">
<div class="sb-nav-link-icon"><i class="fas fa-table"></i></div>
환자 리스트
</a>
 <a sec:authorize="hasAnyRole('USER', 'ADMIN')" class="nav-link" href="/chart/chartJs.do">
                               <div class="sb-nav-link-icon"><i class="fas fa-chart-area"></i></div>
                           </a>
                          <a sec:authorize="hasRole('ADMIN')" class="nav-link" href="/chart/amchart.do">
                               <div class="sb-nav-link-icon"><i class="fas fa-chart-area"></i></div>
                           </a>
                           <a sec:authorize="hasRole('ADMIN')" class="nav-link" href="/board/openStaffListt.do">
<div class="sb-nav-link-icon"><i class="fas fa-table"></i></div>
직원 리스트
</a>
                           <!--a class="nav-link" href="tables.html">
                               <div class="sb-nav-link-icon"><i class="fas fa-table"></i></div>
                           </a-->
<!--a sec:authorize="hasAnyRole('USER', 'ADMIN')" class="nav-link" href="/board/openBoardListt.do">
<div class="sb-nav-link-icon"><i class="fas fa-table"></i></div>
게시글(admin/user)
</a-->
                       </div>
                   </div>
                   <div class="sb-sidenav-footer">
                       <div class="small">언제나 친절한 마음</div>
                       xx푸른 건강병원
                   </div>
               </nav>
           </div>
           <div id="layoutSidenav_content">
                   <div class="container-fluid px-4" layout:fragment="content">
                  Page content goes here
           </div>
               </main>
               <footer class="py-4 bg-light mt-auto">
                   <div class="container-fluid px-4">
                       <div class="d-flex align-items-center justify-content-between small">
                           <div class="text-muted">phy &copy; Your Website 2021</div>
                           <!--div>
                               <a href="#">Privacy Policy</a>
                               <a href="#">Terms & Conditions</a>
                       </div>
                   </div>
               </footer>
           </div>
       </div>
```

```
<div class="modal fade" id="logoutModal" tabindex="-1" role="dialog" aria-labelledby="exampleModalLabel"</pre>
aria-hidden="true">
<div class="modal-dialog" role="document">
<div class="modal-content">
<div class="modal-header">
<h5 class="modal-title" id="exampleModalLabel">Ready to Leave?</h5>
<button class="close" type="button" data-dismiss="modal" aria-label="Close">
<span aria-hidden="true">x</span>
</button>
</div>
<div class="modal-body">Select "Logout" below if you are ready
to end your current session.</div>
<div class="modal-footer">
<button class="btn btn-secondary" type="button" data-dismiss="modal">Cancel</button>
<form method="post" action="/logout">
<input type="hidden" th:name="${ csrf.parameterName}" th:value="${ csrf.token}" />
<button type="submit" class="btn btn-primary">Logout</button>
</form>
</div>
</div>
</div>
</div>
<script src="https://cdn.jsdelivr.net/npm/jquery/dist/jquery.min.js"></script>
<script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js"></script>
<script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></script>
<script src="/js/scripts.js"></script>
<script>
var token = $("meta[name=' csrf']").attr("content");
var header = $("meta[name='_csrf_header']").attr("content");
$(document).ajaxSend(function(e, xhr, opt){
xhr.setRequestHeader(header, token);
$("#goLogin").on('click', function() {
window.location.href = "/login/login.do";
});
$("#goLogout").on('click', function() {
$("#logoutModal").modal();
});
</script>
<!-- custom javascript -->
        <th:block layout:fragment="script"></th:block>
    </body>
</html>
```

denied.xml

```
<!DOCTYPE html>
<html lang="en"
xmlns:th="http://www.thymeleaf.org"
xmlns:layout="http://www.ultraq.net.nz/thymeleaf/layout"
xmlns:sec="http://www.thymeleaf.org/extras/spring-security"
layout:decorator="board/layout/default layout">
<head>
<title>xx병원</title>
</head>
<body id="page-top">
<div class="container-fluid" layout:fragment="content">
<br>
<br>>
<h3 style="text-align:center">인증이 실패하였습니다.</h3>
<br>
<h5 style="text-align:center;color:red" th:text="${errMsg}">...</h5>
<br>>
</div>
<!-- /.container-fluid -->
<th:block layout:fragment="script">
</th:block>
</body>
</html>
```

login.xm

```
<!DOCTYPE html>
<html lang="en" xmlns:th="http://www.thymeleaf.org">
   <head>
       <meta charset="utf-8" />
       <meta http-equiv="X-UA-Compatible" content="IE=edge" />
       <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no" />
       <meta name="description" content="" />
       <meta name="author" content="" />
       <title>환자 관리 로그인 창</title>
       <link href="/css/stvles.css" rel="stvlesheet" />
       <script src="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.15.3/js/all.min.js" crossorigin="anonymous"></script>
    <body class="bg-primary">
       <div id="lavoutAuthentication">
            <div id="lavoutAuthentication content">
               <main>
                   <div class="container">
                       <div class="row justify-content-center">
                           <div class="col-le-5">
                               <div class="card shadow-lg border-0 rounded-lg mt-5">
                                   <div class="card-header"><h3 class="text-center font-weight-light my-4">Patient care Login</h3></div>
                                   <div class="card-body">
                                       <form method="post">
                                          <div class="form-floating mb-3">
                                              <input class="form-control" id="username" name="username" type="email" placeholder="name@example.com" />
                                               <label for="inputEmail">이메일을 입력해주세요.</label>
                                          </div>
                                          <div class="form-floating mb-3">
                                              <input class="form-control" id="password" name="password" type="password" placeholder="Password" />
                                               <label for="inputPassword">비밀번호를 입력해주세요.</label>
                                          </div>
                                          <!--div class="form-check mb-3">
                                               <label class="form-check-label" for="inputRememberPassword">Remember Password</label>
                                          <div class="d-flex align-items-center justify-content-between mt-4 mb-0">
                                              <a class="small" href="password.html">Forgot Password?</a>
                                          <input type="hidden" th:name="${ csrf.parameterName}" th:value="${ csrf.token}"/>
                                           <button type="submit" class="btn btn-primary btn-block">呈ユ인</button>
                                       </form>
                                   </div>
                                   <div class="card-footer text-center pv-3">
                                       <div class="small"><a href="/login/register.do">처음 시작이라면 회원가입을 해주세요!</a></div>
                                   </div>
                               </div>
                           </div>
                       </div>
                   </div>
               </main>
            <div id="layoutAuthentication footer">
               <footer class="pv-4 bg-light mt-auto">
                   <div class="container-fluid px-4">
                       <div class="d-flex align-items-center justify-content-between small">
                           <div class="text-muted">phy &copy; Your Website 2021</div>
                       </div>
                   </div>
               </footer>
           </div>
       <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js" crossorigin="anonymous"></script>
       <script src="/is/scripts.is"></script>
   </body>
</html>
```

password.xml

```
<!DOCTYPE html>
<html lang="en">
   <head>
        <meta charset="utf-8" />
        <meta http-equiv="X-UA-Compatible" content="IE=edge" />
        <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no" />
        <meta name="description" content="" />
        <meta name="author" content="" />
        <title>Password Reset - SB Admin</title>
       <link href="css/styles.css" rel="stylesheet" />
       <script src="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.15.3/js/all.min.js" crossorigin="anonymous"></script>
   </head>
   <body class="bg-primary">
        <div id="layoutAuthentication">
            <div id="layoutAuthentication_content">
               <main>
                   <div class="container">
                       <div class="row justify-content-center">
                           <div class="col-lg-5">
                                <div class="card shadow-lg border-0 rounded-lg mt-5">
                                    <div class="card-header"><h3 class="text-center font-weight-light my-4">Password Recovery</h3></div>
                                    <div class="card-body">
                                       <div class="small mb-3 text-muted">Enter your email address and we will send you a link to reset your password.</div>
                                       <form>
                                            <div class="form-floating mb-3">
                                               <input class="form-control" id="inputEmail" type="email" placeholder="name@example.com" />
                                                <label for="inputEmail">Email address</label>
                                           <div class="d-flex align-items-center justify-content-between mt-4 mb-0">
                                               <a class="small" href="login.html">Return to login</a>
                                               <a class="btn btn-primary" href="login.html">Reset Password</a>
                                           </div>
                                       </form>
                                   </div>
                                    <div class="card-footer text-center py-3">
                                       <div class="small"><a href="register.html">Need an account? Sign up!</a></div>
                                    </div>
                                </div>
                           </div>
                       </div>
                   </div>
               </main>
            <div id="layoutAuthentication footer">
               <footer class="py-4 bg-light mt-auto">
                   <div class="container-fluid px-4">
                        <div class="d-flex align-items-center justify-content-between small">
                           <div class="text-muted">Copyright &copy; Your Website 2021</div>
                                <a href="#">Privacy Policy</a>
                                <a href="#">Terms &amp: Conditions</a>
                           </div>
                       </div>
                   </div>
               </footer>
           </div>
        <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js" crossorigin="anonymous"></script>
        <script src="js/scripts.js"></script>
   </body>
</html>
```

register.xml

```
<!DOCTYPE html>
<html lang="en" >
   <head>
       <meta charset="utf-8" />
       <meta http-equiv="X-UA-Compatible" content="IE=edge" />
       <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no" />
       <meta name="description" content="" />
       <meta name="author" content="" />
       <title>회원가입</title>
       <link href="/css/styles.css" rel="stylesheet" />
       <script src="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/5.15.3/js/all.min.js" crossorigin="anonymous"></script>
   </head>
    <body class="bg-primary">
        <div id="layoutAuthentication">
            <div id="layoutAuthentication content">
               <main>
                   <div class="container">
                       <div class="row justify-content-center">
                           <div class="col-lg-7">
                               <div class="card shadow-lg border-0 rounded-lg mt-5">
                                   <div class="card-header"><h3 class="text-center font-weight-light my-4">회원가입</h3></div>
                                   <div class="card-body">
                                       <form>
                                           <div class="row mb-3">
                                               <div class="col-md-6">
                                                   <div class="form-floating mb-3 mb-md-0">
                                                       <input class="form-control" id="inputFirstName" type="text" placeholder="Enter your first name" />
                                                       <label for="inputFirstName">First name</label>
                                                   </div>
                                               </div>
                                               <div class="col-md-6">
                                                   <div class="form-floating">
                                                       <input class="form-control" id="inputLastName" type="text" placeholder="Enter your last name" />
                                                       <label for="inputLastName">Last name</label>
                                                   </div>
                                               </div>
                                           <div class="form-floating mb-3">
                                               <input class="form-control" id="inputEmail" type="email" placeholder="name@example.com" />
                                               <label for="inputEmail">이메일을 입력하세요.</label>
                                           <div class="row mb-3">
                                               <div class="col-md-6">
                                                   <div class="form-floating mb-3 mb-md-0">
                                                       <input class="form-control" id="inputPassword" type="password" placeholder="Create a password" />
                                                       <label for="inputPassword">비밀번호</label>
                                                   </div>
                                               </div>
                                               <div class="col-md-6">
                                                   <div class="form-floating mb-3 mb-md-0">
                                                       <input class="form-control" id="inputPasswordConfirm" type="password" placeholder="Confirm password" />
                                                       <label for="inputPasswordConfirm">비밀번호 확인</label>
                                               </div>
                                           </div>
                                           <div class="mt-4 mb-0">
                                               <!--div class="d-grid"><a class="btn btn-primary btn-block" href="login.html">Create Account</a></div-->
                                               <br/><button type="button" class"btn btn-primary" id="register" style="width: 100%">인증</button>
                                           </div>
                                       </form>
                                   </div>
```

register.xml

```
<div class="card-footer text-center py-3">
                                      <div class="small"><a href="/login/login.do">Login</a></div>
                               </div>
                           </div>
                       </div>
                   </div>
               </main>
            </div>
            <div id="layoutAuthentication footer">
               <footer class="py-4 bg-light mt-auto">
                   <div class="container-fluid px-4">
                       <div class="d-flex align-items-center justify-content-between small">
                           <div class="text-muted">Copyright &copy; Your Website 2021</div>
                               <a href="#">Privacy Policy</a>
                               <a href="#">Terms &amp; Conditions</a>
                           </div>
                       </div>
                   </div>
               </footer>
            </div>
        </div>
        <script src="https://code.jquery.com/jquery-3.5.1.min.js"></script>
       <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js" crossorigin="anonymous"></script>
        <script src="/js/scripts.js"></script>
 <script>
$('#register').click(function() {
var json = {
"firstName" : $('#inputFirstName').val(),
"lastName" : $('#inputLastName').val(),
"inputEmail" : $('#inputEmail').val(),
"inputPassword" : $('#inputPassword').val(),
"confirmPassword" : $('#inputPasswordConfirm').val()
};
$.ajax({
url : "/login/register.ajax",
type : "POST",
data : JSON.stringify(json),
dataType: "ison".
contentType: "application/json",
success : function(data) {
if (data status == "Ok") {
alert("계정 신청 접수가 완료되었습니다. \n발송된 이메일을 열어서 인증 처리하시기 바랍니다.");
location.href = "/board/openBoardListt.do";
else {
alert(data.errMsg);
error: function () {
console.log()
alert("저장중 오류가 발생하였습니다.");
});
});
</script>
    </body>
</html>
```

welcome.xml

```
<!DOCTYPE html>
<html lang="en"
xmlns:th="http://www.thymeleaf.org" x
mlns:layout="http://www.ultrag.net.nz/thymeleaf/layout"
xmlns:sec="http://www.thymeleaf.org/extras/spring-security"
layout:decorator="board/layout/default layout">
<head>
<title>xx병원</title>
</head>
<body id="page-top">
<div class="container-fluid" layout:fragment="content">
<br>>
<br>
<h3 style="text-align:center">가입을 환영합니다.</h3>
<br>
<h5 style="text-align:center">이메일 인증이 완료 되었으니, 아래 로그인 버튼을 눌러 로그인하세요.</h5>
<hr>>
<div style="text-align:center">
<button sec:authorize="isAnonymous()" type="button" class="btn btn-danger"</pre>
onclick="location.href='/login/login.do'">로그인</button>
</div>
<br>>
<br>
</div>
<!-- /.container-fluid -->
<th:block layout:fragment="script">
</th:block>
</body>
</html>
```

chartjs.xml

```
<!DOCTYPE html>
<html lang="ko"
 xmlns:th="http://www.thymeleaf.org"
 xmlns:lavout="http://www.ultrag.net.nz/thymeleaf/lavout"
     layout:decorator="board/layout/default layout">
<head>
<meta charset="UTF-8">
<title>방문환자차트</title>
<!-- <li>rel="stylesheet" th:href="@{/css/style.css}"/> -->
<!-- Bootstrap CSS -->
<th:block layout:fragment="css">
</p
<link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.6.3/css/all.css">
rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.9.4/Chart.min.css">
</th:block>
</head>
<body>
   <div class="container" layout:fragment="content">
<h1 class="mt-4"></h1>
방문 환자 차트</a>
   <div class="card mb-3">
<div class="card-header">
<i class="fas fa-chart-bar"></i> 환자 차트
<div class="card-body">
<canvas id="myAreaChart" width="100%" height="46%"></canvas>
<div class="card-footer small text-muted" th:text="'Updated '+$ftimestamp}">Updated vesterday at 11:59 PM</div>
</div>
   </div>
<th:block layout:fragment="script">
<script src="https://cdnis.cloudflare.com/ajax/libs/Chart.is/2.9.4/Chart.min.is"></script>
Chart.defaults.global.defaultFontFamily = '-apple-system.system-ui,BlinkMacSystemFont,"Segoe UI",Roboto,"Helvetica Neue",Arial,sans-serif';
Chart.defaults.global.defaultFontColor = '#292b2c';
var config = {
type : 'bar',
data : {
datasets : [{
type : 'line',
fill: 'false'.
label : "첫방문",
hidden: false,
yAxisID: 'y-axis-1',
backgroundColor: "rgba(255,102,0,1)",
borderColor : "rgba(255,102,0,1)",
}, {
type : 'line',
fill: 'false',
label : "재방문",
hidden: false.
yAxisID: 'y-axis-1',
backgroundColor : "rgba(0,255,255,1)",
borderColor: "rgba(0,255,255,1)",
}, {
type : 'bar'.
label : "긴급",
yAxisID: 'y-axis-2',
backgroundColor: "rgba(204,0,204,1)",
borderColor: "rgba(204,0,204,1)",
}],
},
```

chartjs.xml

```
options : {
scales : {
xAxes : [ {
stacked: true,
time : {
unit : 'month'
gridLines : {
display : true
} ],
yAxes : [ {
id: 'y-axis-1',
ticks : {
callback: function(label, index, labels) {
                       return Intl.NumberFormat().format(label);
},
gridLines : {
display : true
}, {
id: 'y-axis-2',
position: 'right',
ticks : {
max: 1000000000,
callback: function(label, index, labels) {
                       return Intl.NumberFormat().format(label);
gridLines : {
display : true
}],
legend : {
display : true
},
tooltips: {
           mode: 'label',
           label: 'mylabel',
           callbacks: {
               label: function(tooltipItem, data) {
                  return data.datasets[tooltipItem.datasetIndex].label + ": " + tooltipItem.yLabel.toString().replace(/\B(?=(\d{3})+(?!\d))/g, ","); }, },
};
var ctx = document.getElementById('myAreaChart').getContext('2d');
window.myLine = new Chart(ctx, config);
ajaxRequest("005930");
function ajaxRequest(jongmokCode) {
$.ajax({
url : "/chart/stockList.ajax",
type : "GET",
data : {
'jongmokCode' : jongmokCode
},
success : function(data) {
try {
var dataArrDate = new Array();
var dataArrOpen = new Array();
var dataArrClose = new Array();
var dataArrVolume = new Array();
```

chartjs.xml

```
for (var i = 0; i < data.length; i++) {</pre>
dataArrDate.push(data[i]['date']);
dataArrDate push(data[i][ date j;;
dataArrClose push(data[i]['close']);
dataArrVolume.push(data[i]['volume']);
window.myLine.config.data.labels = dataArrDate;
window.myLine.config.data.datasets[0].data = dataArrOpen;
window.myLine.config.data.datasets[1].data = dataArrClose;
window.myLine.config.data.datasets[2].data = dataArrVolume;
window.myLine.update();
} catch (e) {
this.error();
     return;
error : function() {
alert("조회중 오류가 발생하였습니다.");

;
;

</script>
</th:block>
</body>
</html>
```

amchart.xml

```
<!DOCTYPE html>
<html lang="ko"
 xmlns:th="http://www.thymeleaf.org"
 xmlns:lavout="http://www.ultrag.net.nz/thymeleaf/lavout"
      layout:decorator="board/layout/default layout">
<head>
<meta charset="UTF-8">
<title>주가차트</title>
<style type="text/css">
#chartdiv {width: 100%; height: 500px;}
</style>
<!-- Bootstrap CSS -->
<th:block layout:fragment="css">
</p
<link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.6.3/css/all.css">
</th:block>
</head>
<body>
   <div class="container" layout:fragment="content">
<h1 class="mt-4"></h1>
class="breadcrumb-item">원장님 전용 주식공간</a>
<div class="card mb-3">
<div class="card-header">
<i class="fas fa-chart-bar"></i> 주가 차트
</div>
<div class="card-body">
<div id="chartdiv"></div>
<div class="card-footer small text-muted" th:text="'Updated '+${timestamp}">Updated yesterday at 11:59 PM</div>
</div>
   </div>
<th:block layout:fragment="script">
<script src="//cdn.amcharts.com/lib/4/core.js"></script>
<script src="//cdn.amcharts.com/lib/4/charts.js"></script>
<script src="//cdn.amcharts.com/lib/4/themes/animated.js"></script>
   <script>
// Themes begin
am4core.useTheme(am4themes animated);
// Create chart
var chart = am4core.create("chartdiv", am4charts.XYChart);
chart.padding(0, 15, 0, 15);
chart.leftAxesContainer.layout = "vertical";
chart.dateFormatter.dateFormat = "yyyy-MM-dd";
chart.dataDateFormat = "yyyy-MM-dd";
var dateAxis = chart.xAxes.push(new am4charts.DateAxis());
dateAxis renderer grid template location = 0;
dateAxis.renderer.ticks.template.length = 8;
dateAxis.renderer.ticks.template.strokeOpacity = 0.1:
dateAxis.renderer.grid.template.disabled = true:
dateAxis.renderer.ticks.template.disabled = false;
dateAxis.renderer.ticks.template.strokeOpacity = 0.2;
dateAxis.renderer.minLabelPosition = 0.01;
dateAxis.renderer.maxLabelPosition = 0.99:
dateAxis.keepSelection = true:
dateAxis.minHeight = 30;
dateAxis.minZoomCount = 5;
dateAxis.dateFormats.setKey("month", "yyyy/MM/dd");
dateAxis.start = 0.9:
dateAxis.groupData = true:
dateAxis.skipEmptyPeriods = true
dateAxis.tooltipDateFormat = "yyyy-MM-dd";
```

amchart.xml

```
var valueAxis = chart.yAxes.push(new am4charts.ValueAxis());
valueAxis.tooltip.disabled = true;
valueAxis.zIndex = 1:
valueAxis.renderer.baseGrid.disabled = true;
valueAxis.height = am4core.percent(75);
valueAxis renderer.gridContainer.background.fill = am4core.color("#000000");
valueAxis.renderer.gridContainer.background.fillOpacity = 0.05;
valueAxis.renderer.inside = true:
valueAxis.renderer.labels.template.verticalCenter = "bottom";
valueAxis.renderer.labels.template.padding(2, 2, 2, 2);
valueAxis.renderer.fontSize = "0.8em"
var series2 = chart.series.push(new am4charts.CandlestickSeries());
series2.dropFromOpenState.properties.fill = am4core.color("#3333FF");
series2.dropFromOpenState.properties.stroke = am4core.color("#3333FF");
series2.riseFromOpenState.properties.fill = am4core.color("#E71909");
series2.riseFromOpenState.properties.stroke = am4core.color("#E71909");
series2 dataFields dateX = "date";
series2.dataFields.openValueY = "open";
series2.dataFields.valueY = "close";
series2.dataFields.lowValueY = "low";
series2.dataFields.highValueY = "high";
series2.clustered = false:
series2.tooltipText = "시가: {openValueY.value}\n고가: {highValueY.value}\n저가: {lowValueY.value}\n종가: {valueY.value}";
series2.name = "시가";
series2.defaultState.transitionDuration = 0;
var valueAxis3 = chart.yAxes.push(new am4charts.ValueAxis());
valueAxis3.tooltip.disabled = true;
valueAxis3.height = am4core.percent(25);
valueAxis3.zIndex = 3
valueAxis3.marginTop = 30;
valueAxis3.renderer.baseGrid.disabled = true;
valueAxis3.renderer.inside = true;
valueAxis3.renderer.labels.template.verticalCenter = "bottom";
valueAxis3.renderer.labels.template.padding(2, 2, 2, 2);
valueAxis3.renderer.fontSize = "0.8em"
valueAxis3.renderer.gridContainer.background.fill = am4core.color("#000000");
valueAxis3.renderer.gridContainer.background.fillOpacity = 0.05;
var series3 = chart.series.push(new am4charts.ColumnSeries());
series3.dataFields.dateX = "date";
series3.clustered = false;
series3.dataFields.valueY = "volume";
series3.yAxis = valueAxis3;
series3.tooltipText = "거래량: {valueY.value}":
series3.name = "거래량";
series3 groupFields valueY = "sum";
series3.defaultState.transitionDuration = 0;
chart.cursor = new am4charts.XYCursor();
var scrollbarX = new am4charts.XYChartScrollbar();
var sbSeries = chart.series.push(new am4charts.LineSeries());
sbSeries.dataFields.dateX = "date";
sbSeries.dataFields.valueY = "close";
scrollbarX.series.push(sbSeries);
sbSeries.disabled = true;
scrollbarX.marginBottom = 20;
chart.scrollbarX = scrollbarX;
scrollbarX.scrollbarChart.xAxes.getIndex(0) minHeight = undefined;
ajaxRequest("005930");
```

amchart.xml

```
function ajaxRequest(jongmokCode) {
$.ajax({
              url: "/chart/stockList.ajax",
              type: "GET",
              data:{'jongmokCode': jongmokCode},
              success: function(data){
try {
var dataArr = new Array();
for(var i=0; i<data.length; i++){</pre>
dataArr push({
  "date": data[i]['date'],
"open": (data[i]['open'] > 0 ? data[i]['open'] : null),
  "high": (data[i]['high'] > 0 ? data[i]['high'] : null),
"low": (data[i]['low'] > 0 ? data[i]['low'] : null),
  "close": (data[i]['close'] > 0 ? data[i]['close'] : null),
"volume": (data[i]['volume'] > 0 ? data[i]['volume'] : null)
chart.data = dataArr;
} catch (e) {
this.error();
    return;
              error: function(){
                  alert("조회중 오류가 발생하였습니다.");
                   chart.data = new Array();
         });
</script>
</th:block>
</body>
</html>
```

boardDetail.xml

```
<!DOCTYPE html>
<!DOCTYPE html>
<html lang="ko" xmlns:th="http://www.thymeleaf.org"</pre>
xmlns:layout="http://www.ultraq.net.nz/thymeleaf/layout"
layout:decorator="/board/layout/default layout">
<head>
<meta charset="UTF-8">
<title> 환자 상세 화면 </title>
<link rel="stylesheet" th:href="@{/css/style.css}" />
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet">
</head>
<body>
<div class="container" layout:fragment="content">
<h2><div class="alert alert-warning" role="alert">
환자 상세 화면
</div></h2>
<form id="frm" method="post">
<div class="row">
<div class="col-lg-4">
<div class="input-group mb-1">
<span class="input-group-text"> 변호</span>
<input type="text" class="form-control" th:value="${board.boardIdx}" readonly>
</div>
<!--div class="input-group mb-3">
<span class="input-group-text">작성자</span>
<input type="text" class="form-control" th:value="${board.creatorId}"readonly>
</div-->
</div>
<div class="col-lg-4">
<!--div class="input-group mb-1">
<span class="input-group-text">조회수</span>
<input type="text" class="form-control" th:value="${board.hitCnt}" readonly>
</div-->
<div class="input-group mb-1">
<span class="input-group-text">등록일</span>
<input type="text" class="form-control" th:value="${board.createdDatetime}" readonly>
</div>
</div>
<div class="col-lg-4">
<div class="input-group mb-3">
<span class="input-group-text">수납금액</span>
<input type="text" class="form-control" id="money" name="money" th:value="${board.money}">
</div>
</div>
</div>
<div class="row">
<div class="col-lg-2">
<div class="input-group mb-3">
<span class="input-group-text">환자이름</span>
<input type="text" class="form-control" id="title" name="title" th:value="${board.title}">
</div>
</div>
<div class="col-lg-2">
<div class="input-group mb-3">
<span class="input-group-text"> 병명</span>
<input type="text" class="form-control" id="disease" name="disease" th:value="${board.disease}">
</div>
</div>
<div class="col-1g-2">
<div class="input-group mb-3">
<span class="input-group-text">생년월일</span>
<input type="text" class="form-control" id="birth" name="birth" th:value="${board.birth}">
</div>
```

boardDetail.xml

```
</div>
<div class="col-lg-3">
<div class="input-group mb-3">
<span class="input-group-text">담당의사</span>
<input type="text" class="form-control" id="doctor" name="doctor" th:value="${board.doctor}">
</div>
</div>
<div class="col-lg-3">
<div class="input-group mb-3">
<span class="input-group-text">담당간호사</span>
<input type="text" class="form-control" id="nurse" name="nurse" th:value="${board.nurse}">
</div>
</div>
</div>
<div class="mb-3">
<label class="form-label">접수 내역</label>
<textarea class="form-control" rows="5" id="contents" name="contents" th:text="${board.contents}"></textarea>
</div>
<div class="mb-3">
<label class="form-label">진료 내역</label>
textarea class="form-control" rows="5" id="Clinic" name="Clinic" th:text="${board.Clinic}"></textarea>
<input type="hidden" th:name="${_csrf.parameterName}" th:value="${_csrf.token}"/>
<label class="form-label">환자 특징</label>
<a href="/board/openReplyDetail.do?replyNo=" th:attrappend="href=${list.replyNo}"</a>
class="btn btn-warning">수정/삭제</a>
<input type="hidden" id="boardIdx" name="boardIdx" th:value="${board.boardIdx}">
<a href="#this" id="list" class="btn btn-warning">목록으로</a>
<a href="#this" id="edit" class="btn btn-warning">수정하기</a>
<a href="#this" id="delete" class="btn btn-warning">삭제하기</a>
<a href="/board/openReplyWrite.do?boardIdx="</pre>
th:attrappend="href=${board.boardIdx}" class="btn btn-warning">환자특징작성</a>
</div>
<th:block layout:fragment="script">
<script src="https://cdn.isdelivr.net/npm/bootstrap@5.1.3/dist/is/bootstrap.bundle.min.is"></script>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>
<script type="text/javascript">
$(document).ready(function() {
$("#list").on("click", function() {
location.href = "/board/openBoardListt.do":
$("#edit").on("click", function() {
var frm = $("#frm")[0];
frm.action = "/board/updateBoard.do";
frm.submit();
});
$("#delete").on("click", function () {
var frm = $("#frm")[0];
frm.action = "/board/deleteBoard.do";
frm.submit();
});
});
</script>
</th:block>
</body>
</html>
```

boardList.xml

```
<!DOCTYPE html>
<html lang="ko"
xmlns:th="http://www.thymeleaf.org"
xmlns:layout="http://www.ultraq.net.nz/thymeleaf/layout"
layout:decorator="/board/layout/default layout">
<head>
<meta charset="UTF-8">
<title>환자접수</title>
<!--link rel="stylesheet" th:href="@{/css/style.css}"/>
<!--link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css">
<!--link rel="stylesheet" th:href="@{/css/bootstrap.min.css}"/-->
  rel="stylesheet" href="https://unpkg.com/bootstrap-table@1.19.1/dist/bootstrap-table.min.css">
  <link href="https://unpkg.com/bootstrap-table@1.18.0/dist/extensions/page-jump-to/bootstrap-table-page-jump-to.min.css" rel="stylesheet">
</head>
<body>
  <script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js"></script>
  <script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></script-->
<div class="container" layout:fragment="content">
<h2><div class="alert alert-primary" role="alert">
등록 환자 리스트
</div></h2>
data-strict-search="false" data-show-refresh="true" data-show-toggle="false" data-show-fullscreen="true"
data-show-columns="true" data-show-columns-toggle-all="false" data-detail-view="false" data-single-select="false"
data-click-to-select="false" data-minimum-count-columns="2" data-id-field="id" data-show-footer="false"
data-url="/board/boardList.ajax" data-sort-name="boardIdx" data-sort-order="desc" data-show-pagination-switch="true"
data-pagination="true" data-page-size="5" data-page-list="[5,10, 15, 25, 50, 100, all]" data-show-jump-to="true"
data-show-export="true" data-export-data-type="all" data-show-print="true">
<thead>
번호
환자이름
 병명
생년월일
담당의사
담당간호사
<!--th data-field="hitCnt" data-sortable="true" data-formatter="numberFormatter">조회수</th-->
환자 등록 날짜
수납금액(원)
</thead>
<a href="/board/openBoardWrite.do" class="btn btn-warning">환자 등록</a>
```

boardList.xml

```
</div>
<th:block layout:fragment="script">
<script src="https://unpkg.com/bootstrap-table@1.19.1/dist/bootstrap-table.min.js"></script>
    <script src="https://unpkg.com/bootstrap-table@1.18.0/dist/extensions/page-jump-to/bootstrap-table-page-jump-to.min.js"></script>
<script src="https://unpkg.com/tableexport.jquery.plugin/tableExport.min.js"></script>
<script src="https://unpkg.com/bootstrap-table@1.18.0/dist/extensions/export/bootstrap-table-export.min.js"></script>
<script src="https://unpkg.com/bootstrap-table@1.18.0/dist/extensions/print/bootstrap-table-print.min.js"></script>
<script>
function viewButton(value) {
return '<button type="button" class="btn btn-secondary btn-sm" style="padding-top:0">' + value +
'</button>'
};
function numberFormatter(value) {
if (value === 0) return 0;
const reg = /(^[+-]?\d+)(\d{3})/;
let n = (value + '');
while (reg.test(n)) n = n.replace(reg, '$1' + ',' + '$2');
return n;
}
$("#table").on("load-success.bs.table", function (data) {
var data = $("#table").bootstrapTable("getData")
if (data.length > 0) {
});
$("table").on("click", "tr", function () {
var row = $(this).index();
var tr = $(this);
var td = tr.children();
var id = td.eq(0).text();
if ($.isNumeric(id)) {
location.href = "/board/openBoardDetail.do?boardIdx=" + id;

});
</script>
</th:block>
</body>
</html>
```

boardWrite.xml

```
<!DOCTYPE html>
<html lang="ko"
xmlns:th="http://www.thymeleaf.org"
xmlns:layout="http://www.ultraq.net.nz/thymeleaf/layout"
layout:decorator="/board/layout/default layout">
<head>
<meta charset="UTF-8">
<title>환자 등록</title>
<link rel="stylesheet" th:href="@{/css/style.css}"/>
k href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet">
</head>
<body>
<div class="container" layout:fragment="content">
<h2><div class="alert alert-warning" role="alert">
환자 등록
</div></h2>
<form id="frm" name="frm" method="post" action="/board/insertBoard.do">
<div class="input-group mb-1">
<span class="input-group-text">이 름</span>
<input type="text" class="form-control" id="title" name="title">
</div>
<div class="input-group mb-1">
<span class="input-group-text">병 명</span>
<input type="text" class="form-control" id="disease" name="disease">
<div class="input-group mb-1">
<span class="input-group-text">생년월일</span>
<input type="text" class="form-control" id="birth" name="birth">
<div class="input-group mb-1">
<span class="input-group-text">담당의사</span>
<input type="text" class="form-control" id="doctor" name="doctor">
<div class="input-group mb-1">
<span class="input-group-text">담당간호사</span>
<input type="text" class="form-control" id="nurse" name="nurse">
<div class="input-group mb-1">
<span class="input-group-text">수납금액</span>
<input type="text" class="form-control" id="money" name="money">
</div>
<div class="mb-3">
<label class="form-label">접수 내역</label>
<textarea class="form-control" rows="5" id="contents" name="contents"></textarea>
</div>
<div class="mb-3">
<label class="form-label">진료 내역</label>
<textarea class="form-control" rows="5" id="Clinic" name="Clinic"></textarea>
</div>
<input type="hidden" th:name="${ csrf.parameterName}" th:value="${ csrf.token}"/>
<input type="submit" id="submit" value="저장" class="btn btn-warning">
</form>
</div>
</body>
<th:block layout:fragment="script">
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"></script>
</th:block>
</html>
```

replyDetail.xml

```
<!DOCTYPE html>
<!DOCTYPE html>
<html lang="ko" xmlns:th="http://www.thymeleaf.org">
<head>
<meta charset="UTF-8">
<title> 환자 특징 등록 </title>
<link rel="stylesheet" th:href="@{/css/style.css}" />
</head>
<body>
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"></script>
<div class="container">
<h2><div class="alert alert-warning" role="alert">
환자 특징
</div></h2>
<form id="frm" method="post">
<colgroup>
<col width="15%" />
<col width="35%" />
<col width="15%" />
<col width="35%" />
</colgroup
<caption> 환자 상세내용</caption>
 번호
 작성자
작성일
특징
<input type="text" id="replyMemo" name="replyMemo" th:value="${board.replyMemo}" />
<input type="hidden" id="replyNo" name="replyNo" th:value="${board.replyNo}">
<input type="hidden" th:name="${ csrf.parameterName}" th:value="${ csrf.token}"/>
</form>
<a href="/board/openBoardDetail.do?boardIdx="</pre>
th:attrappend="href=${board.boardIdx}" class="btn btn-warning">환자 정보 상세</a>
<a href="#this" id="edit" class="btn btn-warning">수정하기</a>
<a href="#this" id="delete" class="btn btn-warning">삭제하기</a>
</div>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>
<script type="text/javascript">
$(document).readv(function() {
$("#edit").on("click", function() {
var frm = $("#frm")[0];
frm.action = "/board/updateReply.do":
frm.submit();
$("#delete").on("click", function () {
var frm = $("#frm")[0];
frm.action = "/board/deleteReply.do";
frm.submit();
});
});
</script>
</body>
```

replyWrite.xml

```
<!DOCTYPE html>
<html lang="ko" xmlns:th="http://www.thymeleaf.org">
<head>
<meta charset="UTF-8">
<title>특징 등록</title>
<link rel="stylesheet" th:href="@{/css/style.css}"/>
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet">
</head>
<body>
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"></script>
<div class="container">
<h2>환자 특징 등록</h2>
<form id="frm" name="frm" method="post" action="/board/insertReply.do">
<textarea id="replyMemo" name="replyMemo"></textarea>
<input type="hidden" id="boardIdx" name="boardIdx"</pre>
th:value="${boardIdx}">
<input type="hidden" th:name="${ csrf.parameterName}" th:value="${ csrf.token}"/>
<input type="submit" id="submit" value="저장" class="btn btn-warning">
</form>
</div>
</body>
</html>
```

staffDetail.xml

```
<!DOCTYPE html>
<!DOCTYPE html>
<html lang="ko" xmlns:th="http://www.thymeleaf.org"</pre>
xmlns:layout="http://www.ultraq.net.nz/thymeleaf/layout"
layout:decorator="/board/layout/default layout">
<head>
<meta charset="UTF-8">
<title> 직원 상세 화면 </title>
<link rel="stylesheet" th:href="@{/css/style.css}" />
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet">
</head>
<body>
<div class="container" layout:fragment="content">
<h2><div class="alert alert-warning" role="alert">
직원 상세 화면
</div></h2>
<form id="frm" method="post">
<div class="row">
<div class="col-lg-4">
<div class="input-group mb-1">
<span class="input-group-text"> 변호</span>
<input type="text" class="form-control" th:value="${board.staffNo}" readonly>
</div>
<!--div class="input-group mb-3">
<span class="input-group-text">작성자</span>
<input type="text" class="form-control" th:value="${board.creatorId}"readonly>
</div-->
</div>
<div class="col-lg-4">
<!--div class="input-group mb-1">
<span class="input-group-text">조회수</span>
<input type="text" class="form-control" th:value="${board.hitCnt}" readonly>
</div-->
<div class="input-group mb-1">
<span class="input-group-text">등록일</span>
<input type="text" class="form-control" th:value="${board.createdDatetime}" readonly>
</div>
</div>
<div class="col-lg-4">
<div class="input-group mb-1">
<span class="input-group-text">수정일</span>
<input type="text" class="form-control" th:value="${board.createdDatetime}" readonly>
</div>
</div>
</div>
<div class="row">
<div class="col-lg-3">
<div class="input-group mb-3">
<span class="input-group-text">직원이름</span>
<input type="text" class="form-control" id="name" name="name" th:value="${board.name}">
</div>
</div>
<div class="col-lg-3">
<div class="input-group mb-3">
<span class="input-group-text">생년월일</span>
<input type="text" class="form-control" id="birth" name="birth" th:value="${board.birth}">
</div>
</div>
<div class="col-1g-3">
<div class="input-group mb-3">
<span class="input-group-text">전화번호</span>
<input type="text" class="form-control" id="Phone" name="Phone" th:value="${board.Phone}">
</div>
```

staffDetail.xml

</html>

```
</div>
<div class="col-lg-3">
<div class="input-group mb-3">
<span class="input-group-text">입사일자</span>
<input type="text" class="form-control" id="date" name="date" th:value="${board.date}">
</div>
</div>
</div>
<div class="mb-3">
<label class="form-label">연봉</label>
<textarea class="form-control" rows="5" id="contents" name="contents" th:text="${board.contents}"></textarea>
</div>
<input type="hidden" th:name="${_csrf.parameterName}" th:value="${_csrf.token}"/>
<input type="hidden" id="staffNo" name="staffNo" th:value="${board.staffNo}">
</form>
<a href="#this" id="list" class="btn btn-warning">목록으로</a>
<a href="#this" id="edit" class="btn btn-warning">수정하기</a>
<a href="#this" id="delete" class="btn btn-warning">삭제하기</a>
</div>
<th:block layout:fragment="script">
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"></script>
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>
<script type="text/javascript">
$(document).ready(function() {
$("#list").on("click", function() {
location.href = "/board/openStaffListt.do";
});
$("#edit").on("click", function() {
var frm = $("#frm")[0];
frm.action = "/board/updateStaff.do";
frm.submit();
});
$("#delete").on("click", function () {
var frm = $("#frm")[0];
frm.action = "/board/deleteStaff.do":
frm.submit();
});
});
</script>
</body>
```

staffList.xml

```
<!DOCTYPE html>
<html lang="ko"
xmlns:th="http://www.thymeleaf.org"
xmlns:layout="http://www.ultraq.net.nz/thymeleaf/layout"
layout:decorator="/board/layout/default layout">
<head>
<meta charset="UTF-8">
<title>직원 리스트</title>
<!--link rel="stylesheet" th:href="@{/css/style.css}"/>
<!--link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css">
<!--link rel="stylesheet" th:href="@{/css/bootstrap.min.css}"/-->
   rel="stylesheet" href="https://unpkg.com/bootstrap-table@1.19.1/dist/bootstrap-table.min.css">
   <link href="https://unpkg.com/bootstrap-table@1.18.0/dist/extensions/page-jump-to/bootstrap-table-page-jump-to.min.css" rel="stylesheet">
</head>
<body>
   <script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.0/dist/umd/popper.min.js"></script>
   <script src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></script-->
<div class="container" layout:fragment="content">
<h2><div class="alert alert-primary" role="alert">
직원 리스트
</div></h2>
data-strict-search="false" data-show-refresh="true" data-show-toggle="false" data-show-fullscreen="true"
data-show-columns="true" data-show-columns-toggle-all="false" data-detail-view="false" data-single-select="false"
data-click-to-select="false" data-minimum-count-columns="2" data-id-field="id" data-show-footer="false"
data-url="/board/staffList.ajax" data-sort-name="staffNo" data-sort-order="desc" data-show-pagination-switch="true"
data-pagination="true" data-page-size="5" data-page-list="[5,10, 15, 25, 50, 100, all]" data-show-jump-to="true"
data-show-export="true" data-export-data-type="all" data-show-print="true">
<thead>
번호
직원이름
생년월일
전화번호
입사일자
<!--th data-field="hitCnt" data-sortable="true" data-formatter="numberFormatter">조회수</th-->
직원 등록 날짜
<!--th data-field="updatedDatetime" data-sortable="true" data-align="center" >마지막 방문날짜</th-->
</thead>
<a href="/board/openStaffWrite.do" class="btn btn-warning">직원 등록</a>
</div>
```

staffList.xml

```
<th:block layout:fragment="script">
<script src="https://unpkg.com/bootstrap-table@1.19.1/dist/bootstrap-table.min.js"></script>
   <script src="https://unpkg.com/bootstrap-table@1.18.0/dist/extensions/page-jump-to/bootstrap-table-page-jump-to.min.js"></script>
<script src="https://unpkg.com/tableexport.jquery.plugin/tableExport.min.js"></script>
<script src="https://unpkg.com/bootstrap-table@1.18.0/dist/extensions/export/bootstrap-table-export.min.js"></script>
<script src="https://unpkg.com/bootstrap-table@1.18.0/dist/extensions/print/bootstrap-table-print.min.js"></script>
<script>
function viewButton(value) {
return '<button type="button" class="btn btn-secondary btn-sm" style="padding-top:0">' + value +
'</button>'
};
function numberFormatter(value) {
if (value === 0) return 0;
const reg = /(^[+-]?\d+)(\d{3})/;
let n = (value + '');
while (reg.test(n)) n = n.replace(reg, '$1' + ',' + '$2');
return n;
}
$("#table").on("load-success.bs.table", function (data) {
var data = $("#table").bootstrapTable("getData")
if (data.length > 0) {
});
$("table").on("click", "tr", function () {
var row = $(this).index();
var tr = $(this);
var td = tr.children();
var id = td.eq(0).text();
if ($.isNumeric(id)) {
location.href = "/board/openStaffDetail.do?staffNo=" + id;
});
</script>
</th:block>
</body>
</html>
```

staffwrite.xml

```
<!DOCTYPE html>
<html lang="ko"
xmlns:th="http://www.thymeleaf.org"
xmlns:layout="http://www.ultraq.net.nz/thymeleaf/layout"
layout:decorator="/board/layout/default layout">
<head>
<meta charset="UTF-8">
<title>직원 등록</title>
<link rel="stylesheet" th:href="@{/css/style.css}"/>
k href="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/css/bootstrap.min.css" rel="stylesheet">
</head>
<body>
<div class="container" layout:fragment="content">
<h2><div class="alert alert-warning" role="alert">
직원 등록
</div></h2>
<form id="frm" name="frm" method="post" action="/board/insertStaff.do">
<div class="row">
<div class="col-lg-3">
<div class="input-group mb-1">
<span class="input-group-text">이 름</span>
<input type="text" class="form-control" id="name" name="name">
</div>
</div>
<div class="col-lg-3">
<div class="input-group mb-1">
<span class="input-group-text">생년월일</span>
<input type="text" class="form-control" id="birth" name="birth">
</div>
</div>
<div class="col-lg-3">
<div class="input-group mb-1">
<span class="input-group-text">전화번호</span>
<input type="text" class="form-control" id="Phone" name="Phone">
</div>
</div>
<div class="col-lg-3">
<div class="input-group mb-1">
<span class="input-group-text">입사일자</span>
<input type="text" class="form-control" id="date" name="date">
</div>
</div>
</div>
<div class="mb-3">
<label class="form-label">연봉</label>
<textarea class="form-control" rows="3" id="contents" name="contents"></textarea>
</div>
<input type="hidden" th:name="${ csrf.parameterName}" th:value="${ csrf.token}"/>
<input type="submit" id="submit" value="저장" class="btn btn-warning">
</form>
</div>
</body>
<th:block layout:fragment="script">
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.1.3/dist/js/bootstrap.bundle.min.js"></script>
</th:block>
</html>
```

감사합니다.