



스프링 부트 게시판

[1조 발표]

조민석, 김동현, 노용천, 박지선



PRESENTATION

OVERVIEW

1. 프로젝트 개요
2. 역할 소개
3. 세부 코드 소개
4. 자체 평가 의견
5. Q & A



프로젝트 목표

스프링 부트를 이용하여
간단한 게시판 만들기

- ✓ 회원가입
- ✓ 로그인
- ✓ 카테고리
- ✓ 작성 글 수정, 삭제
- ✓ 마이 페이지
- ✓ 비밀번호 변경
- ✓ 댓글 페이징
- ✓ 댓글 정렬



site_user	
id	integer
email	varchar
password	varchar
username	varchar

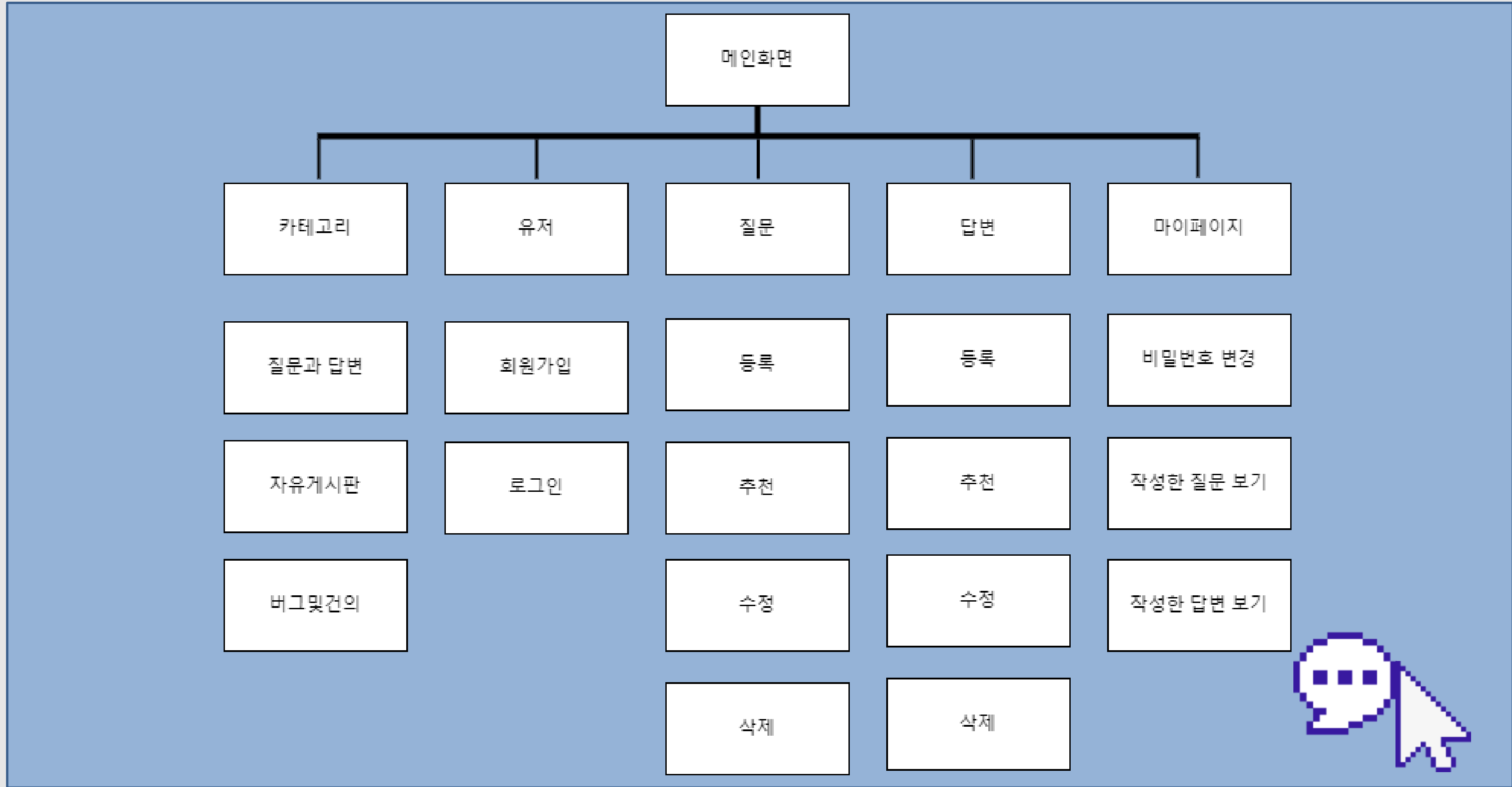
answer	
id	integer
content	varchar
create_date	timestamp
modify_date	timestamp
author_id	integer
question_id	integer

answer_voter	
answer_id	integer
voter_id	integer

question	
id	integer
category	integer
content	varchar
create_date	timestamp
modify_date	timestamp
subject	varchar
view	integer
author_id	integer

question_voter	
question_id	integer
voter_id	integer







조민석

- ✓ MVC파트 전반
- ✓ SpringSecurity 구현
- ✓ 타임리프 부분
- ✓ ppt 제작 & 발표



김동현

- ✓ model파트 구현
- ✓ view파트 구현
- ✓ 데이터베이스 설계
- ✓ ppt 제작



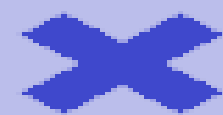
노용천

- ✓ model 파트 구현
- ✓ view파트 구현
- ✓ 데이터베이스 설계
- ✓ ppt 제작



박지선

- ✓ model 파트 구현
- ✓ view파트 구현
- ✓ 데이터베이스 설계
- ✓ ppt 제작



```
@Getter
@Setter
@Entity
public class SiteUser {

    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private Long id;

    @Column(unique = true)
    private String username;

    private String password;

    @Column(unique = true)
    private String email;
}
```



```
@Getter
@Setter
@Entity
public class Question {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private Integer id;

    @Column(length = 200)
    private String subject;

    @Column(columnDefinition = "TEXT")
    private String content;

    private LocalDateTime createDate;

    @OneToMany(mappedBy = "question", cascade = CascadeType.REMOVE)
    private List<Answer> answerList;

    @ManyToOne
    private SiteUser author;

    private LocalDateTime modifyDate;

    @ManyToMany
    Set<SiteUser> voter;

    private int view = 0;

    public void updateView() {
        this.view++;
    }
}
```

```
private int category;

public QuestionEnum getCategoryAsEnum() {
    switch (this.category) {
        case 0:
            return QuestionEnum.QNA;
        case 1:
            return QuestionEnum.FREE;
        case 2:
            return QuestionEnum.BUG;
        default:
            throw new RuntimeException("올바르지 않은 접근입니다.");
    }
}

public String getCategoryAsString() {
    switch (this.category) {
        case 0:
            return "질문과답변";
        case 1:
            return "자유게시판";
        case 2:
            return "버그및건의";
        default:
            throw new RuntimeException("올바르지 않은 접근입니다.");
    }
}
```



```
@Getter
@Setter
@Entity
public class Answer {
    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private Integer id;

    @Column(columnDefinition = "TEXT")
    private String content;

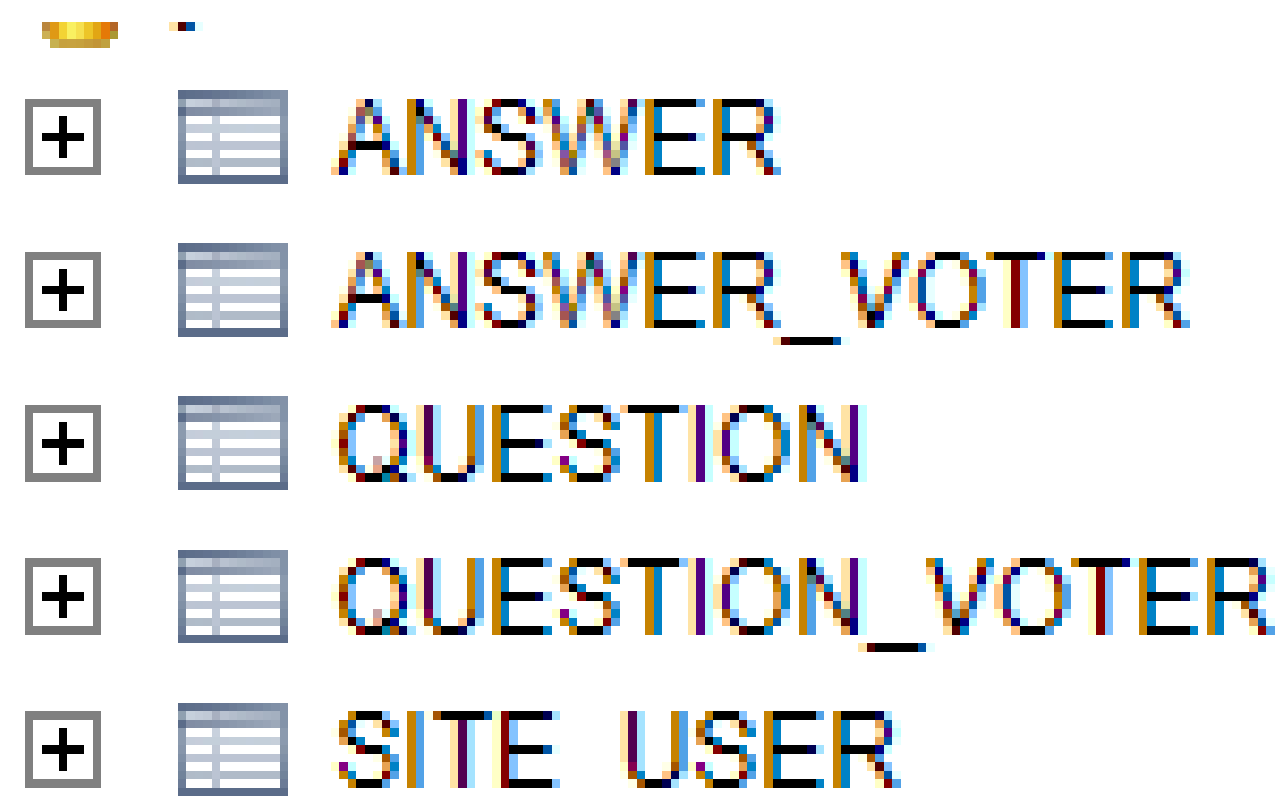
    private LocalDateTime createDate;

    @ManyToOne
    private Question question;

    @ManyToOne
    private SiteUser author;

    private LocalDateTime modifyDate;

    @ManyToMany
    Set<SiteUser> voter;
}
```

- 
- + ANSWER
 - + ANSWER_VOTER
 - + QUESTION
 - + QUESTION_VOTER
 - + SITE_USER



```
@Controller
public class MainController {

    @GetMapping("/")
    public String root() {
        return "redirect:/question/list/qna";
    }
}
```

```
@Getter
public enum QuestionEnum {
    QNA(0),
    FREE(1),
    BUG(2);

    private int status;

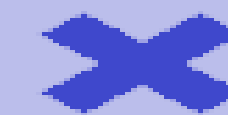
    QuestionEnum(int status) {
        this.status = status;
    }
}
```

```
@RequestMapping("/question")
@RequiredArgsConstructor
@Controller
public class QuestionController {

    private final QuestionService questionService;
    private final UserService userService;
    private final AnswerService answerService;

    @GetMapping("/list/{type}")
    public String list(Model model, @PathVariable(required = true, name = "type") String
type,
        @RequestParam(value = "page", defaultValue = "0") int page,
        @RequestParam(value = "kw", defaultValue = "") String kw) {
        int category = switch (type) {
            case "qna" -> QuestionEnum.QNA.getStatus();
            case "free" -> QuestionEnum.FREE.getStatus();
            case "bug" -> QuestionEnum.BUG.getStatus();
            default -> throw new RuntimeException("올바르지 않은 접근입니다.");
        };

        model.addAttribute("boardName", category);
        Page<Question> paging = questionService.getList(category, page, kw);
        model.addAttribute("paging", paging);
        model.addAttribute("kw", kw);
        return "question_list";
    }
}
```



질문과답변

질문과답변 등록

찾기

질문과답변

자유게시판

버그및건의

번호	제목	글쓴이	작성일시	조회수
14	테스트 데이터입니다:[010]		2024-05-23 10:45	0
13	테스트 데이터입니다:[009]		2024-05-23 10:45	0
12	테스트 데이터입니다:[008]		2024-05-23 10:45	0
11	테스트 데이터입니다:[007]		2024-05-23 10:45	0
10	테스트 데이터입니다:[006]		2024-05-23 10:45	0
9	테스트 데이터입니다:[005]		2024-05-23 10:45	0
8	테스트 데이터입니다:[004]		2024-05-23 10:45	0
7	테스트 데이터입니다:[003]		2024-05-23 10:45	0
6	테스트 데이터입니다:[002]		2024-05-23 10:45	0
5	테스트 데이터입니다:[001]		2024-05-23 10:45	0

처음

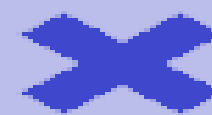
이전

0

1

다음

끝



```
@GetMapping("/mypage")
@PreAuthorize("isAuthenticated()")
public String showmyPage(Model model, Principal principal) {
    SiteUser user = userService.getUser(principal.getName());

    if(user == null) {
        throw new DataNotFoundException("사용자를 찾을 수 없습니다.");
    }
    model.addAttribute("user", user);

    Long questionCount = questionService.getQuestionCount(user);
    model.addAttribute("questionCount", questionCount);

    List<Question> questionList = questionService.getQuestionTop5LatestByUser(user);
    model.addAttribute("questionList", questionList);

    Long answerCount = answerService.getAnswerCount(user);
    model.addAttribute("answerCount", answerCount);

    List<Answer> answerList = answerService.getAnswerTop5LatestByUser(user);
    model.addAttribute("answerList", answerList);

    return "my_page";
}
```

```
public SiteUser getUser(String username) {
    Optional<SiteUser> siteUser = this.userRepository.findByusername(username);
    if (siteUser.isPresent()) {
        return siteUser.get();
    } else {
        throw new DataNotFoundException("siteuser not found");
    }
}
```



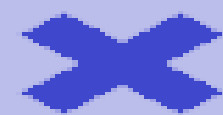

```
<div th:if="${successMessage !=null}" class="alert alert-success"
th:text="${successMessage}" style="text-align: center; margin-top:10px"></div>
<div class="card d-flex flex-column align-items-center" style="margin-top : 10px;">
  <div class="card-body gap-3">
    <div class="d-flex align-items-baseline justify-content-center gap-2">
      <i class="fa-solid fa-user" style="color: #75a8ff;"></i>
      <p>내 정보</p>
    </div>
    <div class="d-flex align-items-baseline gap-1">
      <i class="fa-regular fa-circle-check" style="color: #91c0fd;"></i>
      <p>사용자 Id :</p>
      <p th:text="${user.username}"></p>
    </div>
    <div class="d-flex gap-1 align-items-baseline">
      <i class="fa-regular fa-circle-check" style="color: #91c0fd;"></i>
      <p>e-mail :</p>
      <p th:text="${user.email}"></p>
    </div>
    <div class="d-flex gap-1 align-items-baseline justify-content-center
container-fluid">
      <a href="/user/change/passwd" class="btn btn-outline-primary col-12 d-flex
align-items-center justify-content-center">
        <span>비밀번호 변경</span>
      </a>
    </div>
  </div>
</div>
```

내 정보

사용자 Id : aaa

e-mail : ok@gmail.com

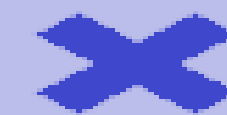
[비밀번호 변경](#)



```
<p>나의 질문</p>
<p th:text='${' + questionCount + '}'></p>
<a th:href="@{/question/list/byQuestion/${user.id}||}">더보기</a>
</div>
<table class="table">
  <thead class="table-dark">
    <tr class="text-center">

      <td class="text-start">
        <a th:href="@{/question/detail/${question.id}||}" th:text="${question.subject}"
          style="min-width:80px; padding: 12px 0;"></a>
        <span class="text-danger small ms-2"
          th:if="${#lists.size(question.answerList) > 0}"
          th:text="${#lists.size(question.answerList)}">
        </span></td>
        <td th:text="${#temporals.format(question.createDate, 'yy-MM-dd')}"
          style="min-width:80px; padding: 12px 0;"></td>
        <td th:if="${question.modifyDate == null}">--</td>
        <td th:if="${question.modifyDate != null}"
          th:text="${#temporals.format(question.modifyDate, 'yy-MM-dd')}"
          style="min-width:80px; padding: 12px 0;"></td>
        <td th:text="${question.view}"></td>
```

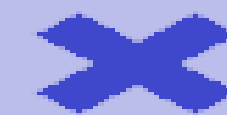




```
<td class="text-start">
  <a th:href="@{/question/detail/${question.id}||}" th:text="${question.subject}"
    style="min-width:80px; padding: 12px 0;"></a>
  <span class="text-danger small ms-2"
    th:if="${#lists.size(question.answerList) > 0}"
    th:text="${#lists.size(question.answerList)}">
  </span></td>
<td th:text="${#temporals.format(question.createDate, 'yy-MM-dd')}"
  style="min-width:80px; padding: 12px 0;"></td>
<td th:if="${question.modifyDate == null}">--</td>
<td th:if="${question.modifyDate != null}"
th:text="${#temporals.format(question.modifyDate, 'yy-MM-dd')}"
  style="min-width:80px; padding: 12px 0;"></td>
<td th:text="${question.view}"></td>
```

나의 질문 (7) 더보기

제목	작성일	수정일	조회수
dsa	24-05-22	-	1
wwwwwwwwwwwwww	24-05-22	-	0
qqqqqqqqqqqqqqqq 1	24-05-22	-	2
wwwwwwwwwwwwww	24-05-22	-	0
qqqqqqqqqqqqqq 1	24-05-22	-	2

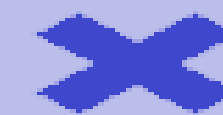


```
@PreAuthorize("isAuthenticated()")
@GetMapping("/list/byQuestion/{id}")
public String personalListByQuestionUserId(Model model, @PathVariable(required = true,
name = "id") Long id,
@RequestParam(name="page", required = false, defaultValue = "0") int page,
@RequestParam(name= "kw",required = false, defaultValue = "") String kw,
Principal principal) {
    // 유저 개인별 질문 모음(질문자)
    public Page<Question> getPersonalQuestionListByQuestionAuthorId(int page, String
SiteUser siteUser = userService.g kw, Long authorId) {
    List<Sort.Order> sorts = new ArrayList<>();
    sorts.add(Sort.Order.desc("createDate"));
    Pageable pageable = PageRequest.of(page, 10, Sort.by(sorts)); //페이지 번호, 개수
    return questionRepository.findAllByKeywordAndAuthorId(kw, authorId, pageable);

    if(siteUser.getId() != id) {
        throw new ResponseStatusExcep
    }

    Page<Question> paging =
questionService.getPersonalQuestionListByQuestionAuthorId(page, kw, id);
    model.addAttribute("user", siteUser);
    model.addAttribute("paging", paging);
    // 동일한 템플릿 사용 -> 총 답변수로 표기하기 위함
    model.addAttribute("type", "총 질문수");
    return "personal_list";
}
```





```
<div class="row my-3">
  <div class="col-6 d-flex gap-2">
    <p th:text="${user.username + '님의'}"></p>
    <p th:text="${type}"></p>
    <p th:if="${answerCount == null}" th:text="${'(' + paging.getTotalElements + ')'}"></p>
    <p th:if="${answerCount != null}" th:text="${'(' + answerCount + ')'}"></p>
  </div>
  <div class="col-6">
    <form>
      <div class="input-group">
        <input type="text" name="kw" class="form-control" th:value="${param.kw}">|
        <button class="btn btn-outline-secondary" id="btn_search">찾기</button>
      </div>
    </form>
  </div>
</div>
<table class="table">
  <thead class="table-dark">
    <tr class="text-center">
      <th>번호</th>
      <th style="width:50%">제목</th>
      <th>글쓴이</th>
      <th>작성일시</th>
      <th>조회수</th>
    </tr>
  </thead>
  <tbody>
    <tr class="text-center" th:each="question, loop : ${paging}">
      <td th:text="${paging.getTotalElements - (paging.number * paging.size) - loop.index}"></td>
      <td class="text-start">
        <a th:href="@{|/question/detail/${question.id}|" th:text="${question.subject}"></a>
        <span class="text-danger small ms-2"
          th:if="${#lists.size(question.answerList) > 0}"
          th:text="${#lists.size(question.answerList)}">
        </span>
      </td>
      <td><span th:if="${question.author != null}" th:text="${question.author.username}"></span>
      <td th:text="${#temporals.format(question.createDate, 'yyyy-MM-dd HH:mm')}"></td>
      <td th:text="${question.view}"></td>
    </tr>
  </tbody>
</table>
```





aaa님의 총 질문수 (7)

찾기

번호	제목	글쓴이	작성일시	조회수
7	dsa	aaa	2024-05-22 14:58	1
6	wwwwwwwwwwwwwwww	aaa	2024-05-22 10:52	0
5	qqqqqqqqqqqqqqqqqq 1	aaa	2024-05-22 10:52	2
4	wwwwwwwwwwwwwwww	aaa	2024-05-22 10:52	0
3	qqqqqqqqqqqqqqqq 1	aaa	2024-05-22 10:52	2
2	wwwwwwwwwwwwwwwwwwww 11	aaa	2024-05-22 10:52	33
1	qqqqqqqqqqqqqqqq	aaa	2024-05-22 10:51	0

처음

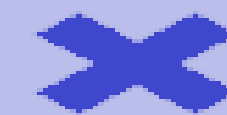
이전

0

다음

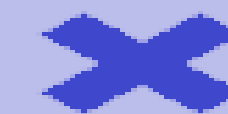
끝





```
<div class="text-center" style="color: #75a8ff; font-weight: bold; font-size: 1.2em; margin-bottom: 10px;">
  <p>나의 답변</p>
  <p th:text="${'(' + answerCount + ')'}"></p>
  <a th:href="@{/question/list/byAnswer/${user.id}||}">더보기</a>
</div>
<table class="table">
  <thead class="table-dark">
    <tr class="text-center">
      <th>제목</th>
      <th>작성일</th>
      <th>수정일</th>
    </tr>
  </thead>
  <tbody>
    <tr class="text-center" th:each="answer, loop : ${answerList}">
      <td class="text-start">
        <div class="d-flex gap-2 align-items-baseline">
          <i class="fa-regular fa-circle-question" style="color: #75a8ff;">
```

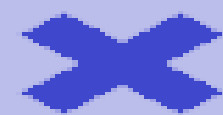




```
<a th:href="@{/question/detail/${answer.question.id}#answer_${answer.id}|"
th:text="${answer.question.subject}"
style="min-width:80px; padding: 12px 0;"></a>
</div>
<div class="d-flex gap-2 align-items-baseline">
<i class="fa-solid fa-a" style="color: #75a8ff;"></i>
<span th:text="${answer.content}" style="min-width:80px; padding: 12px 0;"></span>
</div>
</td>
<td th:text="${#temporals.format(answer.createDate, 'yy-MM-dd')}"
style="min-width:80px; padding: 12px 0;"></td>
<td th:if="${answer.modifyDate == null}">-</td>
<td th:if="${answer.modifyDate != null}" th:text="${#temporals.format(answer.modifyDate,
'yy-MM-dd')}"
style="min-width:80px; padding: 12px 0;"></td>
</tr>
```

나의 답변 (4) 더보기

제목	작성일	수정일
wwwwwwwwwwwwwww	24-05-22	-
A dsa		
qqqqqqqqqqqqqqqq	24-05-22	-
A dsa		
qqqqqqqqqqqqqq	24-05-22	-
A dsa		
wwwwwwwwwwwwwww	24-05-22	-
A dsa		

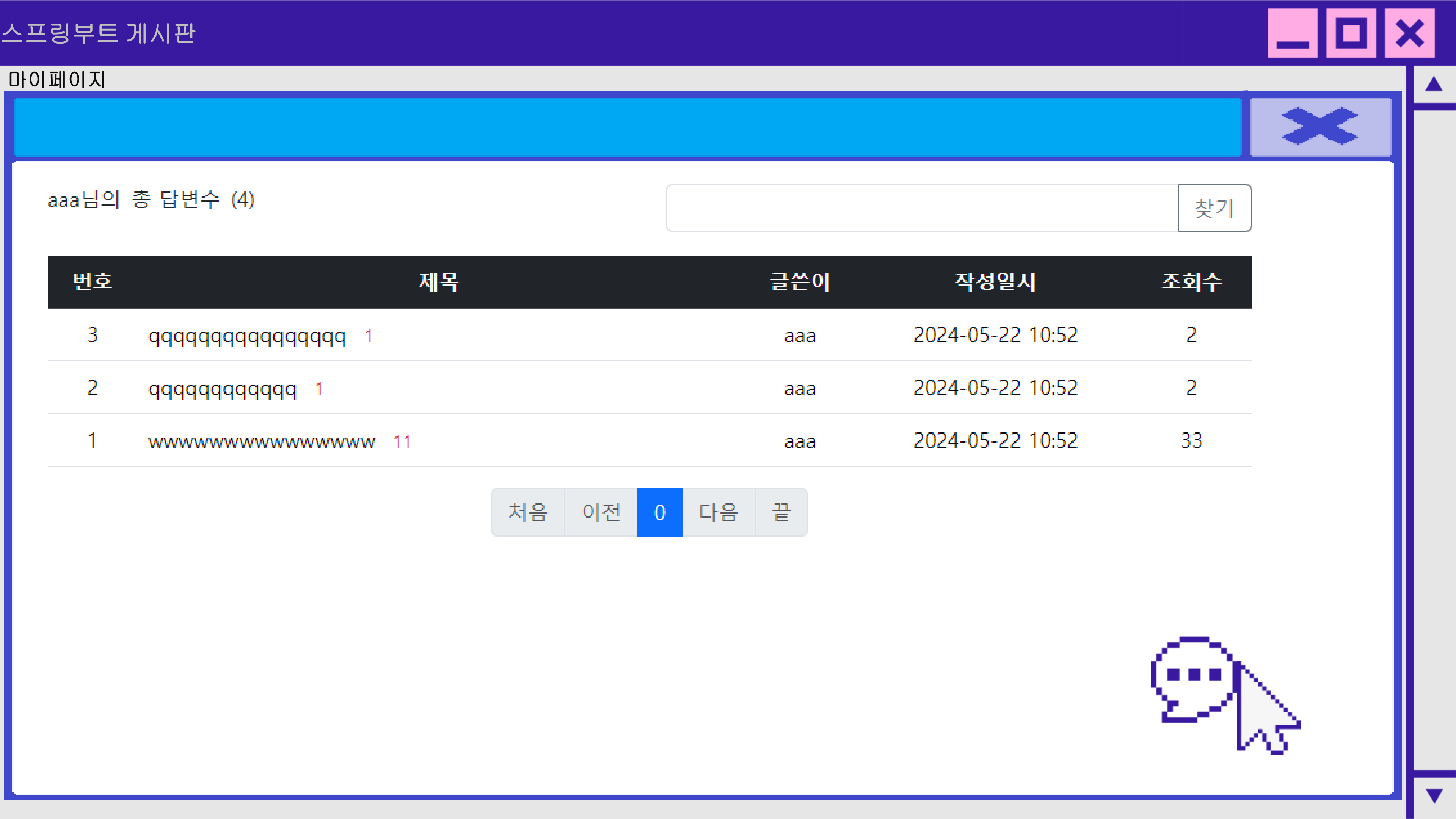


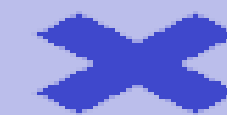
```
@PreAuthorize("isAuthenticated()")
@GetMapping("/list/byAnswer/{id}")
public String personalListByAnswerUserId(Model model, @PathVariable(required = true,
name = "id") Long id,
    @RequestParam(name="page", required = false, defaultValue = "0") int page,
    @RequestParam(name= "kw",required = false, defaultValue = "") String kw, Principal
principal) {
    SiteUser siteUser = userService.getUser(principal.getName());
    // 유저 개인별 질문 모음(답변자)
    if (siteUser.getId() != id) {
        throw new ResponseStatusException(HttpStatus.FORBIDDEN);
    }
    public Page<Question> getPersonalQuestionListByAnswer_AuthorId(int page, String kw, Long
answerAuthorId) {
        List<Sort.Order> sorts = new ArrayList<>();
        sorts.add(Sort.Order.desc("createDate"));
        Pageable pageable = PageRequest.of(page, 10, Sort.by(sorts)); //페이지 번호, 개수
        return questionRepository.findAllByKeywordAndAnswer_AuthorId(kw, answerAuthorId,
pageable);
    }

    // 총 답변 수 View에 나타내기 위한
    Long answerCount = answerService.getAnswerCountByAuthorId(id);
    model.addAttribute("answerCount", answerCount);

    Page<Question> paging =
questionService.getPersonalQuestionListByAnswer_AuthorId(page, kw, id);
    model.addAttribute("user", siteUser);
    model.addAttribute("paging", paging);
    // 동일한 템플릿 사용 -> 총 답변수로 표기하기 위한
    model.addAttribute("type", "총 답변수");
    return "personal_list";
}
```







내 정보

✓ 사용자 Id : aaa

✓ e-mail : ok@gmail.com

비밀번호 변경

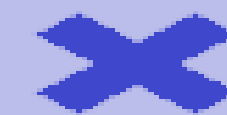




```
@PreAuthorize("isAuthenticated()")
@GetMapping("/change/passwd")
public String showChangePW(@ModelAttribute("pwChangeForm") PWChangeForm pwChangeForm) {
    return "pw_change";
}
```

```
<main layout:fragment="content" class="container my-3">
  <form th:action method="post" th:object="${pwChangeForm}" onsubmit="ChangePasswordForm__submit(this);
return false;">
    <div th:replace="~{form_errors :: formErrorsFragment}"></div>
    <div class="mb-3">
        <label class="form-label">이전 비밀번호</label>
        <input type="password" th:field="*{prePassword}" class="form-control">
    </div>
    <div class="mb-3">
        <label class="form-label">새 비밀번호</label>
        <input type="password" th:field="*{newPassword1}" class="form-control">
    </div>
    <div class="mb-3">
        <label class="form-label">새 비밀번호 확인</label>
        <input type="password" th:field="*{newPassword2}" class="form-control">
    </div>
    <button class="btn btn-primary">비밀번호 변경</button>
  </form>
```





```
@PreAuthorize("isAuthenticated()")
@PostMapping("/change/passwd")
public String changePW(@Valid @ModelAttribute("pwChangeForm") PWChangeForm pwChangeForm,
BindingResult bindingResult, Model model,
Principal principal, RedirectAttributes redirectAttributes) {
    if (bindingResult.hasErrors()) {
        return "pw_change";
    }

    SiteUser user = userService.getUser(principal.getName());

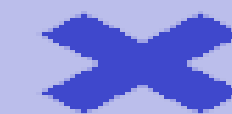
    // 이전 패스워드와 맞지 않을 경우
    if (!passwordEncoder.matches(pwChangeForm.getPrePassword(), user.getPassword())) {
        bindingResult.reject("notMatchPW", "이전 비밀번호가 일치하지 않습니다.");
        return "user/pw_change";
    }
    // 새 비밀번호, 비밀번호 확인 창 일치하지 않을 경우
    if (!pwChangeForm.getNewPassword1().equals(pwChangeForm.getNewPassword2())) {
        bindingResult.reject("notMatchNewPW", "새 비밀번호와 확인이 일치하지 않습니다.");
        return "user/pw_change";
    }

    userService.updatePassWord(user, pwChangeForm.getNewPassword1());

    // 로그인 페이지에서 보여줄 성공 메시지를 플래시 애트리뷰트로 추가
    redirectAttributes.addFlashAttribute("successMessage", "비밀번호 변경 성공!");

    return "redirect:/user/mypage";
}
```





이전 비밀번호

...

새 비밀번호

...

새 비밀번호 확인

...

비밀번호 변경

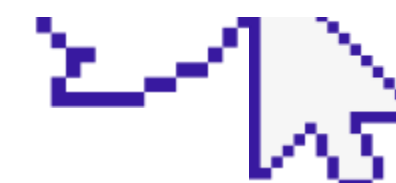
비밀번호 변경 성공!

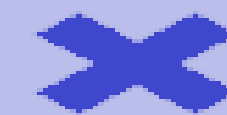
 내 정보

✓ 사용자 Id : aaa

✓ e-mail : ok@gmail.com

비밀번호 변경





```
@GetMapping(value = "/detail/{id}")
public String detail(Model model, @PathVariable(required = true, name = "id") Integer
id, AnswerForm answerForm, @RequestParam(name="page", required = false, defaultValue =
"0") int page,
    @RequestParam(name="sort", required = false, defaultValue = "0") String sort)
{
    Question question = questionService.getQuestion(id);
    Page<Answer> paging = answerService.getAnswerPage(question, page, sort);
    questionService.updateQuestionView(question);
    model.addAttribute("question", question);
    model.addAttribute("paging", paging);
    return "question_detail";
}
```

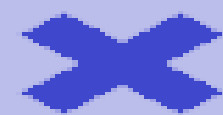



```
public Page<Answer> getAnswerPage(Question question, int page, String sort) {
    Pageable pageable;

    // 최신순
    if (sort.equals("createDate")) {
        List<Sort.Order> sorts = new ArrayList<>();
        sorts.add(Sort.Order.desc("createDate"));
        pageable = PageRequest.of(page, 10, Sort.by(sorts)); //페이지 번호, 개수
        return answerRepository.findAllByQuestion(question, pageable);
    }

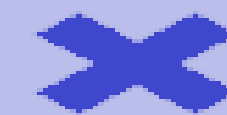
    // 추천순, 기본
    else {
        pageable = PageRequest.of(page, 10); // 페이지네이션 정보
        // 추천순 : 10개에 페이지정보만 주면 알아서
        if (sort.equals("voter"))
            return answerRepository.findAllByQuestionOrderByVoter(question, pageable);
        // 기본
        return answerRepository.findAllByQuestion(question, pageable);
    }
}
```





```
@Query("SELECT e "  
      + "FROM Answer e "  
      + "WHERE e.question = :question "  
      + "ORDER BY SIZE(e.voter) DESC, e.createDate")  
Page<Answer>  
findAllByQuestionOrderByVoter(@Param("question") Question question, Pageable  
pageable);|
```





```
<!-- 답변 페이징처리 시작 -->
<div th:if="{paging != null && !paging.isEmpty()}" th:with="queryStrBase = '?sort=' +
${param.sort != null ? param.sort : ''}">
  <ul class="pagination justify-content-center">
    <li class="page-item" th:classappend="{paging.number==0} ? 'disabled'">
      <a class="page-link"
        th:href="@{|${queryStrBase}&page=0|}">
        <span>처음</span>
      </a>
    </li>
    <li class="page-item" th:classappend="{!paging.hasPrevious} ? 'disabled'">
      <a class="page-link"
        th:href="@{|${queryStrBase}&page=${paging.number-1}|}">
        <span>이전</span>
      </a>
    </li>
    <li th:each="page: ${#numbers.sequence(0, paging.totalPages-1)}"
      th:if="{page >= paging.number-5 and page <= paging.number+5}"
      th:classappend="{page == paging.number} ? 'active'"
    </li>
  </ul>
</div>
```




```
th:classappend="${page == paging.number} ? 'active'
class="page-item">
  <a th:text="${page}" class="page-link"
th:href="@{|${queryStrBase}&page=${page}|}"></a>
</li>
<li class="page-item" th:classappend="${!paging.hasNext} ? 'disabled'">
  <a class="page-link"
th:href="@{|${queryStrBase}&page=${paging.number+1}|}">
    <span>다음</span>
  </a>
</li>
<li class="page-item" th:classappend="${paging.number==(paging.totalPages-1)}
? 'disabled'">
  <a class="page-link"
th:href="@{|${queryStrBase}&page=${paging.totalPages-1}|}">
    <span>끝</span>
  </a>
</li>
</ul>
</div>
<!-- 페이징처리 끝 -->
```



8

aaa
2024-05-23 12:13

추천 0

수정

삭제

9

aaa
2024-05-23 12:13

추천 0

수정

삭제

10

aaa
2024-05-23 12:13

추천 0

수정

삭제

처음

이전

0

1

다음

끝

11개의 답변이 있습니다.

최신순

추천순

11

aaa
2024-05-23 12:13

추천 0

수정

삭제

처음

이전

0

1

다음

끝



최신순

11개의 답변이 있습니다.

최신순 추천순

11

aaa
2024-05-23 12:13

추천 0 수정 삭제

10

aaa
2024-05-23 12:13

추천 0 수정 삭제

추천순

11개의 답변이 있습니다.

최신순 추천순

1

aaa
2024-05-23 12:13

추천 1 수정 삭제

2

aaa
2024-05-23 12:13

추천 1 수정 삭제





조민석

매개변수 위치 하나로도 오류가 날 수 있는 굉장히 섬세한 언어라는 걸 느꼈습니다.



김동현

생 소 하 여 처 음 에 는 어려웠지만 프로젝트를 진행 하면서 조금씩 익숙해지게 되었고, mvc 패턴을 이해하는데 많은 도움이 되었다.



노용천

어노테이션에 대해서 조금은 알게 되었고 공부에 많이 필요하다는 걸 많이 느꼈다.



박지선

팀원의 도움으로 생각보다 쉽게 이해가 된 것 같다.
이곳의 기능을 잘 쓰면 훨씬 간단하게 사이트를 만들 수 있을 거 같은 생각이 들었다.

THANK YOU!

