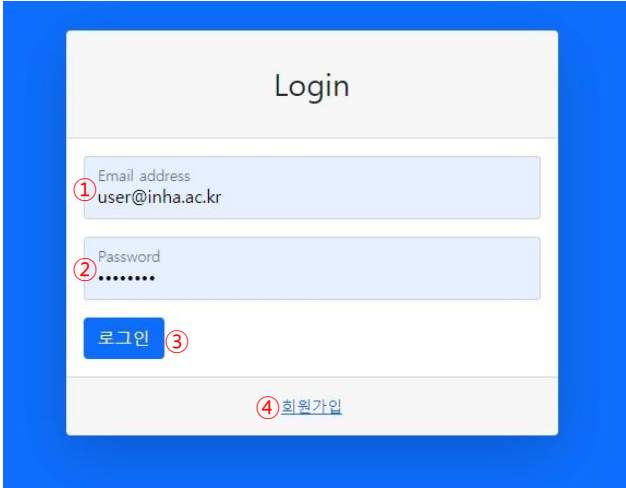


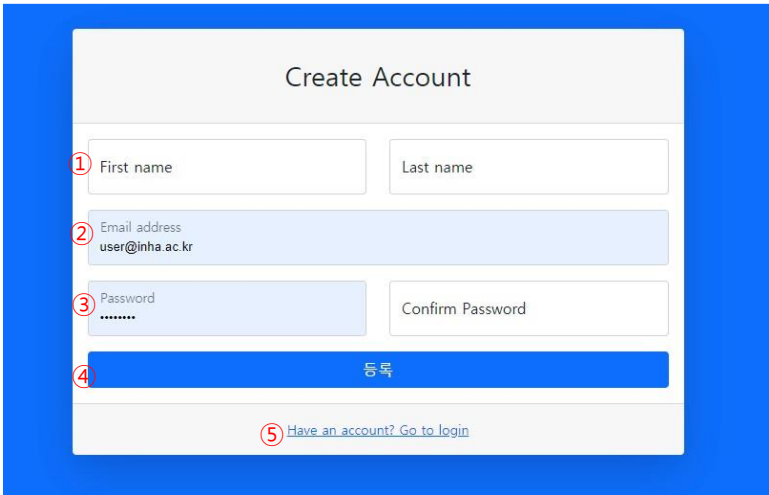
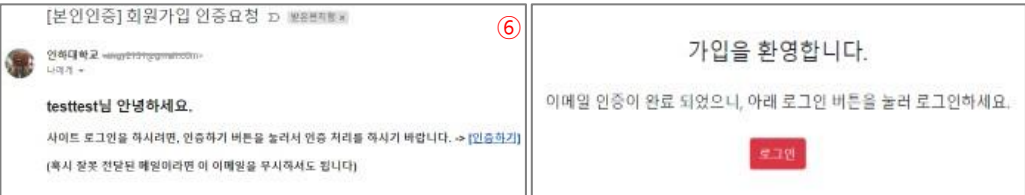
웹서버프로그래밍 개인프로젝트 개발완료보고서

12204172 최현식

1. 화면 설명 (스토리보드)

주제 : 공모주 관련 정보 확인 사이트

화면ID	/ipo/ipoLogin.do	화면명	로그인 페이지	작성일	2021/12/18	설명
						계정 접속을 위한 로그인 페이지 입니다. 1. 이메일 아이디 입력 - 이메일 형식의 데이터를 입력한다. 2. 패스워드 입력 - 패스워드를 입력한다. 3. 로그인 버튼 - 입력된 아이디와 패스워드를 판단하여 알맞은 경우 계정정보와 함께 '대시보드' 페이지로 이동 4. 회원가입 버튼 - 회원가입 페이지로 이동

화면ID	/ipo/ipoRegister.do	화면명	회원가입 페이지	작성일	2021/12/18	설명
						계정 생성을 위한 회원가입 페이지 입니다. 1. 신규회원 이름 입력 - 이름을 입력한다. 2. 신규회원 이메일 입력 - 이메일 형식의 데이터를 입력한다. 3. 신규회원 비밀번호 입력 - 패스워드를 2번 입력한다. 입력된 패스워드가 서로 상이할 경우 가입 불가능. 4. 회원가입 제출(submit) 버튼 - 입력한 정보를 제출하여 회원가입을 진행한다. 회원가입 이후 로그인 페이지로 이동한다. 5. 로그인 페이지로 돌아가기 - 회원가입을 중단하고, 로그인 페이지로 이동한다. 6. 인증메일 발송 동작 예시
						

화면ID	/ipo/ipoDashboard.do	화면명	공모주 전체 개요	작성일	2021/12/18	설명
<div> <div> <div>공모주</div> <div> <div>①</div> <div>공모주 개요</div> <div>공모주 목록</div> <div>공모주 상세사항</div> <div>관리자 페이지</div> </div> </div> <div> <div>공모주 개요</div> <div> <div>② 로그인</div> <div>로그아웃</div> </div> </div> </div> <div> <div> <div>공모주 개요</div> <div> <div>④ 기대 수익률 (종가기준)</div> <div> <div>수익률</div> <div> </div> </div> </div> <div> <div> <div>⑤</div> <div> <div>[상장]테스트종목</div> <div>[공모매칭]G에너지솔루션</div> <div>[공모매칭]해운대엔</div> <div>[상장대기]테스트입니다</div> </div> <div> <div>[분할진행]메시종목</div> <div>[상장]알바디분류</div> <div>[상장]메이컴프로</div> <div>[상장]다이어류</div> </div> </div> </div> </div></div>						<p>전체적인 공모주 현황을 확인할 수 있는 메인화면 (GET요청: /ipo/ipoList.ajax)</p> <ol style="list-style-type: none"> 사이드바 메뉴 <ul style="list-style-type: none"> - 원하는 메뉴로 이동할 수 있는 버튼들. (공모주 개요, 공모주 목록, 공모주 상세사항, 관리자 페이지로 이동이 가능하다.) 로그인/로그아웃을 할 수 있는 버튼 <ul style="list-style-type: none"> - 해당 버튼을 통해 로그인/로그아웃을 시도할 수 있다. 로그인 된 사용자의 권한을 확인할 수 있는 영역 <ul style="list-style-type: none"> - 로그인된 사용자의 권한명이 표출된다. 기대 수익률 차트 (종가기준) <ul style="list-style-type: none"> - 공모주를 투자했을 때 발생하였을 예상 수익률을 표출한다. (공모가와 상장일 증가값을 토대로 값 구현) 최근 8개의 일정을 카드 형태로 표현 <ul style="list-style-type: none"> - 기한이 임박한 일정들을 표출하여 사용자에게 안내한다. 각 종목 클릭시 해당 공모주 상세화면으로 이동된다. - 관심이 필요한 상태는 빨간색으로 표시한다.

화면ID	/ipo/ipoList.do	화면명	공모주 목록	작성일	2021/12/18	설명																																																							
<div> <div>공모주</div> <div>로그아웃</div> </div> <div> <div>공모주 개요</div> <div>공모주 목록</div> <div>공모주 안내사항</div> <div>관리자 페이지</div> </div> <div> <div>①</div> <div> <div>Search</div> <div> <div>□</div> <div>↺</div> <div>+</div> <div>≡</div> <div>⌂</div> <div>↓</div> </div> </div> <table> <tr> <th>순번</th><th>종목명</th><th>대표 주권사</th><th>창역일자</th><th>확장공모가</th></tr> <tr> <td>17</td><td>테스트종목</td><td>인하금융투자</td><td>2021-12-09</td><td>30,000</td></tr> <tr> <td>16</td><td>LG에너지솔루션</td><td>KB증권</td><td>2022-01-18</td><td>1</td></tr> <tr> <td>15</td><td>래뎬레이</td><td>IBK투자증권</td><td>2021-12-20</td><td>15,000</td></tr> <tr> <td>3</td><td>테스트업니다</td><td>인하금융투자</td><td>2021-12-09</td><td>30,001</td></tr> <tr> <td>8</td><td>예시종목</td><td>인하금융투자</td><td>2021-12-01</td><td>10,000</td></tr> <tr> <td>6</td><td>알비더블유</td><td>미래에셋증권</td><td>2021-11-11</td><td>21,400</td></tr> <tr> <td>5</td><td>바이옴트로</td><td>한국투자증권</td><td>2021-11-09</td><td>7,500</td></tr> <tr> <td>4</td><td>다어유</td><td>한국투자증권</td><td>2021-11-01</td><td>26,000</td></tr> <tr> <td>3</td><td>아이티아이즈</td><td>신한금융투자</td><td>2021-11-01</td><td>14,300</td></tr> <tr> <td>2</td><td>마인즈랩</td><td>NH투자증권</td><td>2021-11-11</td><td>30,000</td></tr> </table> <div>Showing 1 to 10 of 11 rows 10 rows per page 1 2 GO</div> <div>글쓰기 ②</div> </div> <div> <p>Copyright © 최원식</p> </div>						순번	종목명	대표 주권사	창역일자	확장공모가	17	테스트종목	인하금융투자	2021-12-09	30,000	16	LG에너지솔루션	KB증권	2022-01-18	1	15	래뎬레이	IBK투자증권	2021-12-20	15,000	3	테스트업니다	인하금융투자	2021-12-09	30,001	8	예시종목	인하금융투자	2021-12-01	10,000	6	알비더블유	미래에셋증권	2021-11-11	21,400	5	바이옴트로	한국투자증권	2021-11-09	7,500	4	다어유	한국투자증권	2021-11-01	26,000	3	아이티아이즈	신한금융투자	2021-11-01	14,300	2	마인즈랩	NH투자증권	2021-11-11	30,000	<p>다양한 공모주들을 목록으로 조회하는 화면 (GET요청: /ipo/ipoList.ajax)</p> <ol style="list-style-type: none"> 공모주 리스트 <ul style="list-style-type: none"> - 등록된 공모주 리스트 조회 - 각 종목명 클릭시 상세 내용 조회 가능 글쓰기 버튼 <ul style="list-style-type: none"> - 새로운 공모주 추가를 위한 글쓰기 페이지로 이동 - 권한(ADMIN)이 있는 계정만 글쓰기 버튼이 표시됨. - /ipo/ipoWrite.do 페이지 링크
순번	종목명	대표 주권사	창역일자	확장공모가																																																									
17	테스트종목	인하금융투자	2021-12-09	30,000																																																									
16	LG에너지솔루션	KB증권	2022-01-18	1																																																									
15	래뎬레이	IBK투자증권	2021-12-20	15,000																																																									
3	테스트업니다	인하금융투자	2021-12-09	30,001																																																									
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2	마인즈랩	NH투자증권	2021-11-11	30,000																																																									

화면ID	/ipo/ipoDetail.do	화면명	공모주 상세 정보	작성일	2021/12/18	설명
						<p>사용자가 선택한 공모주에 대한 상세한 정보를 확인하는 화면</p> <ol style="list-style-type: none"> 상세화면 <ul style="list-style-type: none"> 해당 공모주에 대한 상세한 내용을 확인할 수 있다. 해당 공모주 관련 일정들에 D-Day를 확인할 수 있다. 입력된 일정값을 통해 종목상태를 자동으로 표시한다. 수정하기 <ul style="list-style-type: none"> 해당 글을 수정할 수 있다. /ipo/ipoEditor.do 페이지 링크 해당 글 삭제 <ul style="list-style-type: none"> 해당 글이 삭제되며, 리스트 화면으로 이동된다. 목록 <ul style="list-style-type: none"> 공모주 리스트 페이지로 이동합니다.

화면ID	/ipo/ipoWrite.do (ipoEditor.do)	화면명	공모주 신규 등록(수정)	작성일	2021/12/18	설명
						<p>공모주를 정보를 신규로 추가(등록/수정)하는 화면</p> <ol style="list-style-type: none"> 종목명 입력 <ul style="list-style-type: none"> 해당 종목명을 입력 일정 데이터 입력 <ul style="list-style-type: none"> 공모청약 시작일, 환불일, 신규상장일 입력 상세 데이터 입력 <ul style="list-style-type: none"> 시장구분(코스피/코스닥), 종목코드, 업종, 확정공모가, 의무보유확약(%), 상장일 증가, 청약경쟁률, 주관사, 주식수 입력 상장일 증가는 상장이후에만 입력 가능 작성완료 버튼 <ul style="list-style-type: none"> 작성완료시 해당 내용을 데이터베이스에 저장하고, 리스트 화면으로 돌아감. (신규등록시 POST 요청: /ipo) (수정시 PUT 요청: /ipo/ipoIndex)

화면ID

/ipo/ipoInform.do

화면명

공모주 관련 안내사항

작성일

2021/12/18

설명

공모주

로그아웃

메뉴

공모주 개요

공모주 목록

공모주 안내사항

관리자 페이지

① 공모주 청약이란?

일반 공모란 일반인(50명 이상)에게 주식 등의 유가증권을 신규로 발행하거나, 이미 발행된 주식등 유가증권을 매각하는 것을 말합니다. 공모주는 공모 대상의 주식을, 공모주 청약은 공모주를 사겠다고 신청하는 것을 말합니다.

기 상장된 기업도 공모 방식의 유상증자를 통해 자금조달을 할 수 있지만, 일반적으로 공모주 청약할 때의 공모주라고 하면 코스피나 코스닥 시장에 신규 상장(+기업공개, IPO(Initial Public Offering))을 하는 기업의 주식을 말합니다.

공모주 청약 방법

공모주 청약 방법은 (1) 영업점에 직접 가는 방법 (2) 전화로 하는 방법 (3) HTS, MTS 등으로 하는 방법이 있습니다. 일단 영업점에 직접 가는 것은 번거롭기도 하고 평일에는 직장인이면 갈 수가 없는 단점이 있습니다. 전화로 하는 방법은 편리하지만 청약수수료가 발생합니다. 이번 기사물에서는 HTS로 청약하는 방법에 대해 알아보겠습니다.

1. 공모주 청약 신청할 증권사 선정 (+계좌 개설)


주식배정률과 청약대출여부 등을 종합해 공모주 청약을 신청할 증권사를 선정하고 계좌가 없는 경우 계좌를 개설합니다. 이렇게 하는 이유는 증권사별로 배정되는 주식 물량과 경쟁률이 다르고, 증권사별 일반고객, 우대고객 청약한도가 각각 다르기 때문에 전략적으로 증권사를 선택해야 합니다. 한정된 증거금으로 한주라도 더 배정받기 위해서는 증권사를 잘 선정하는 것이 중요합니다.

공모 정보

투자증권신고일 : 2020.06.03	
비공모 P일정	(회당)공모가격 20,000 원 ~ 24,000 원
수요제출일 2020.06.28 ~ 06.27	(회당)공모금액 3,200 억원 ~ 3,640 억원
공모일정 2020.06.01 ~ 06.02	(확정)공모가격 24,000 원
한정일 2020.06.04	(확정)공모금액 3,640 억원
납입일 2020.06.06	청약증거금율 계산 50% / 수요제출 참여기준 0%
	비상장대상 4251 100%

공모주와 관련하여 개념, 계좌 개설 등 각종 안내사항을 명시한 화면

1. 공모주와 관련된 개념을 설명하는 글

화면ID	/ipo/ipoAdmin.do	화면명	공모주 시스템 관리자 페이지	작성일	2021/12/18	설명
<div><div>공모주</div><div>로그아웃</div><div><div>메뉴</div><div><div>공모주 개요</div><div>공모주 목록</div><div>공모주 안내사항</div><div>관리자 페이지</div></div></div></div> <div><div>Dashboard</div><div>Dashboard</div><div><div>①</div><div>Client API 요청 건 수</div><div><div>GET POST PUT DELETE</div></div></div><div><div>②</div><div>System Log</div><div><div>Search</div><div><div>□ ↺ ⛶</div></div></div></div></div>						

2. 데이터베이스 테이블

2-1. members

각 계정의 정보를 저장하는 테이블

이름: members

코멘트: 멤버

열:

+

 추가

✕



 제거

▲

 위로

▼

 아래로

#	이름	데이터 유형	길이/설정	부호 없음	NULL 허용	0으로 채움	기본값	코멘트	조합
 1	user_no	BIGINT	20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AUTO_INCREMENT	사용자번호	
 2	user_id	VARCHAR	50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	기본값 없음	사용자ID	utf8mb3_general_ci
3	user_pass	VARCHAR	50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	기본값 없음	비밀번호	utf8mb3_general_ci
4	first_name	VARCHAR	30	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	기본값 없음	이름	utf8mb3_general_ci
5	last_name	VARCHAR	30	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	기본값 없음	성	utf8mb3_general_ci
6	role_name	VARCHAR	30	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	기본값 없음	롤명	utf8mb3_general_ci
7	enabled	CHAR	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL	활성여부(Y/N)	utf8mb3_general_ci
8	regist_date	DATETIME		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL	등록일시	
9	certification_date	DATETIME		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL	인증일시	

2.2. member_roles

계정에 부여할 권한값을 저장해두는 테이블

이름:

member_roles

코멘트:

멤버 롤

열:

+ 추가

✕ 제거

▲ 위로

▼ 아래로

#	이름	데이터 유형	길이/설정	부호 없음	NULL 허용	0으로 채움	기본값	코멘트	조합
1	role_name	VARCHAR	20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	기본값 없음	롤명	utf8mb3_general_ci
2	role_desc	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL	롤설명	utf8mb3_general_ci

2.3 ipo

공모주 관련 정보를 저장하는 테이블

기본

옵션

인덱스 (2)

외래 키 (0)

제약 조건 확인 (0)

분할

CREATE 코드

ALTER 코드

이름:

ipo

코멘트:

공모주 정보를 저장하는 테이블

열:

+

추가

✕

제거

▲

위로

▼

아래로

#	이름	데이터 유형	길이/설정	부호 없음	NULL 허용	0으로 채움	기본값	코멘트	조합
<div>🔑</div> 1	ipo_index	INT	10	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	AUTO_INCREMENT	계시번호	
<div>📄</div> 2	stock_name	VARCHAR	50	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	<div><input type="checkbox"/></div>	기본값 없음	종목명	utf8mb3_general_ci
3	stock_exchange	VARCHAR	50	<div><input type="checkbox"/></div>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	NULL	시장구분(코스피,코...	utf8mb3_general_ci
4	stock_code	VARCHAR	50	<div><input type="checkbox"/></div>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	NULL	종목코드	utf8mb3_general_ci
5	sector	VARCHAR	50	<div><input type="checkbox"/></div>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	NULL	업종	utf8mb3_general_ci
6	ipo_price	INT	11	<div><input checked="" type="checkbox"/></div>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	NULL	확정공모가	
7	lock_up_percent	DOUBLE		<div><input checked="" type="checkbox"/></div>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	NULL	의무보유확락	
8	ipo_retail_acceptance_rate	DOUBLE		<div><input checked="" type="checkbox"/></div>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	NULL	청약경쟁률	
9	ipo_institutional_acceptance_rate	DOUBLE		<div><input checked="" type="checkbox"/></div>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	NULL	기관경쟁률	
10	debut_price	INT	11	<div><input checked="" type="checkbox"/></div>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	NULL	상장일 총가	
11	number_of_ipo_shares	INT	11	<div><input checked="" type="checkbox"/></div>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	NULL	공모주식수	
12	ipo_start_date	DATE		<div><input type="checkbox"/></div>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	NULL	공모청약 시작일	
13	ipo_refund_date	DATE		<div><input type="checkbox"/></div>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	NULL	환불대금 입금일	
14	ipo_debut_date	DATE		<div><input type="checkbox"/></div>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	NULL	시장 상장일	
15	underwriter	VARCHAR	50	<div><input type="checkbox"/></div>	<div><input checked="" type="checkbox"/></div>	<div><input type="checkbox"/></div>	NULL	주간사	utf8mb3_general_ci

2.4 system_log

시스템 로그를 저장하는 테이블

기본

옵션

인덱스 (1)

외래 키 (0)

제약 조건 확인 (0)

분할

CREATE 코드

ALTER 코드

이름:

system_log

코멘트:

명:

+

추가

x

제거

▲

위로

▼

아래로

#	이름	데이터 유형	길이/설정	부호 없음	NULL 허용	0으로 채움	기본값	코멘트	조합
<div><div></div><div>1</div></div>	log_index	INT	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AUTO_INCREMENT	인덱스번호	
2	type	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL	로그타입(API)	utf8mb3_general_ci
3	target	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL	목적(URL)	utf8mb3_general_ci
4	result	VARCHAR	500	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL	처리결과 또는 내용	utf8mb3_general_ci
5	log_date	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL	발생일자	utf8mb3_general_ci

3. 소스

3-1) Controller

IpoController

```
package kr.ac.inha.board.ipo.controller;

import java.util.List;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestMethod;
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.ipo.dto.IpoDto;
import kr.ac.inha.board.ipo.dto.SystemLogDto;
import kr.ac.inha.board.ipo.service.IpoService;
import kr.ac.inha.board.ipo.service.SystemLogService;
import lombok.extern.slf4j.Slf4j;

@Slf4j
@Controller
public class IpoController {
    @Autowired
    private IpoService ipoService;

    @Autowired
    private SystemLogService systemLogService;

    @RequestMapping(value = {"/ipo/ipoDashboard.do", "/" })
    public ModelAndView openIpoDashboard() throws Exception {
        ModelAndView mv = new ModelAndView("/ipo/ipoDashboard");

        return mv;
    }

    @RequestMapping("/ipo/ipoInform.do")
    public ModelAndView openIpoInform() throws Exception {
        ModelAndView mv = new ModelAndView("/ipo/ipoInform");

        return mv;
    }
}
```

```

@RequestMapping("/ipo/ipoAdmin.do")
public ModelAndView openIpoAdmin() throws Exception {
    ModelAndView mv = new ModelAndView("/ipo/ipoAdmin");

    return mv;
}

@RequestMapping("/ipo/ipoSystemLog.ajax")
@ResponseBody
public List<SystemLogDto> ipoSystemLogAjax() throws Exception {
    List<SystemLogDto> list = systemLogService.selectSystemLog();
    return list;
}

@RequestMapping("/ipo/ipoList.do")
public ModelAndView openIpoList() throws Exception {
    ModelAndView mv = new ModelAndView("/ipo/ipoList");

    return mv;
}

@RequestMapping("/ipo/ipoList.ajax")
@ResponseBody
public List<IpoDto> ipoListAjax() throws Exception {
    List<IpoDto> list = ipoService.selectIpoList();
    return list;
}

@RequestMapping("/ipo/ipoEditor.do")
public ModelAndView openIpoEditor(@RequestParam int ipoIndex) throws Exception {
    ModelAndView mv = new ModelAndView("/ipo/ipoEditor");
    log.warn("Start ipo Editor Controller");
    IpoDto ipo = ipoService.selectIpoDetail(ipoIndex);

    mv.addObject("ipo", ipo);
    return mv;
}

@RequestMapping("/ipo/ipoWrite.do")
public ModelAndView openIpoWrite() throws Exception {
    ModelAndView mv = new ModelAndView("/ipo/ipoWrite");
    return mv;
}

@RequestMapping(value="/ipo", method=RequestMethod.POST)
public String insertIpo(IpoDto ipo) throws Exception {
    log.warn("start POST controller => " + ipo);
    ipoService.insertIpo(ipo);

    systemLogService.writeLog("POST", "/ipo", ipo.toString());
    return "redirect:/ipo/ipoList.do";
}

@RequestMapping(value="/ipo/{ipoIndex}", method=RequestMethod.PUT)
public String updateIpo(IpoDto ipo) throws Exception {
    log.warn("start put controller => " + ipo);
    ipoService.updateIpo(ipo);

    systemLogService.writeLog("PUT", "/ipo", ipo.toString());
    return "redirect:/ipo/"+Integer.toString(ipo.getIpoIndex());
}

```

```

@RequestMapping(value="/ipo/{ipoIndex}", method=RequestMethod.DELETE)
public String deleteIpo(IpoDto ipo) throws Exception {
    ipoService.deleteIpo(ipo.getIpoIndex());

    systemLogService.writeLog("DELETE", "/ipo", ipo.toString());
    return "redirect:/ipo/ipoList.do";
}

@RequestMapping(value="/ipo/{ipoIndex}", method=RequestMethod.GET)
public ModelAndView openIpoDetail(@PathVariable("ipoIndex") int ipoIndex) throws Exception {
    ModelAndView mv = new ModelAndView("/ipo/ipoDetail");

    IpoDto ipo = ipoService.selectIpoDetail(ipoIndex);
    mv.addObject("ipo", ipo);

    log.warn("IpoDetail Result <= " + mv);

    systemLogService.writeLog("GET", "/ipo", Integer.toString(ipoIndex));
    return mv;
}
}

```

3-2) Service

IpoService

```

package kr.ac.inha.board.ipo.service;

import java.util.List;

import kr.ac.inha.board.ipo.dto.IpoDto;

public interface IpoService {
    List<IpoDto> selectIpoList() throws Exception;
    IpoDto selectIpoDetail(int ipoIndex) throws Exception;
    void deleteIpo(int ipoIndex) throws Exception;
    void updateIpo(IpoDto ipo) throws Exception;
    void insertIpo(IpoDto ipo) throws Exception;
}

```

IpoServiceImpl

```

package kr.ac.inha.board.ipo.service;

import java.util.List;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;

import kr.ac.inha.board.ipo.dto.IpoDto;
import kr.ac.inha.board.ipo.mapper.IpoMapper;
import lombok.extern.slf4j.Slf4j;

@Slf4j
@Service
public class IpoServiceImpl implements IpoService {
    @Autowired
    private IpoMapper ipoMapper;
}

```



```

@Override
public List<IpoDto> selectIpoList() throws Exception {
    return ipoMapper.selectIpoList();
}

@Override
public IpoDto selectIpoDetail(int ipoIndex) throws Exception {
    log.warn("ipoDetail IpoIndex number => "+Integer.toString(ipoIndex));
    IpoDto result = ipoMapper.selectIpoDetail(ipoIndex);
    log.warn("Query Return Value <= " + result);
    return result;
}

@Override
public void deleteIpo(int ipoIndex) throws Exception {
    log.warn("start delete service");
    ipoMapper.deleteIpo(ipoIndex);
}

@Override
public void updateIpo(IpoDto ipo) throws Exception {
    log.warn("start put service <= " + ipo);
    ipoMapper.updateIpo(ipo);
}

@Override
public void insertIpo(IpoDto ipo) throws Exception {
    ipoMapper.insertIpo(ipo);
}
}

```

SystemLogService

```

package kr.ac.inha.board.ipo.service;

import java.util.List;

import kr.ac.inha.board.ipo.dto.SystemLogDto;

public interface SystemLogService {
    List<SystemLogDto> selectSystemLog() throws Exception;
    void writeLog(String type, String target, String result) throws Exception;
}

```

SystemLogServiceImpl

```

package kr.ac.inha.board.ipo.service;

import java.util.List;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;

import kr.ac.inha.board.ipo.dto.SystemLogDto;
import kr.ac.inha.board.ipo.mapper.IpoMapper;
import lombok.extern.slf4j.Slf4j;

@Slf4j
@Service
public class SystemLogServiceImpl implements SystemLogService{

```

```

    @Autowired
    private IpoMapper ipoMapper;

    @Override
    public List<SystemLogDto> selectSystemLog() throws Exception {
        return ipoMapper.selectSystemLog();
    }

    @Override
    public void writeLog(String type, String target, String result) throws Exception {
        log.warn("");
        ipoMapper.insertSystemLog(type, target, result);
    }
}

```

3-3) Mapper

```

IpoMapper
package kr.ac.inha.board.ipo.mapper;

import java.util.List;

import org.apache.ibatis.annotations.Mapper;
import org.apache.ibatis.annotations.Param;

import kr.ac.inha.board.ipo.dto.IpoDto;
import kr.ac.inha.board.ipo.dto.SystemLogDto;

@Mapper
public interface IpoMapper {
    List<IpoDto> selectIpoList() throws Exception;
    IpoDto selectIpoDetail(int ipoIndex) throws Exception;
    void deleteIpo(int ipoIndex) throws Exception;
    void updateIpo(IpoDto ipo) throws Exception;
    void insertIpo(IpoDto ipo) throws Exception;
    List<SystemLogDto> selectSystemLog() throws Exception;
    //void insertSystemLog(String type, String target, String result) throws Exception;
    void insertSystemLog(@Param("type") String type,@Param("target") String
target,@Param("result") String result) throws Exception;
}

```

3-4) Template

```

/layout/default_layout.html
<!DOCTYPE html>
<html lang="ko"
    xmlns:th="http://www.thymeleaf.org"
    xmlns:layout="http://www.ultraq.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">공모주</title>
<link href="/css/styles.css" rel="stylesheet" />
    <link 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="/">공모주</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-->
        <button sec:authorize="isAnonymous()" type="button" id="goLogin"
class="btn btn-success btn-sm">로그인</button>
        <button sec:authorize="not isAnonymous()" type="button"
id="goLogout" class="btn btn-success btn-sm">로그아웃</button>

        <!--
        <ul class="navbar-nav ms-auto ms-md-0 me-3 me-lg-4">
            <li class="nav-item dropdown">
                <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>
                <ul class="dropdown-menu dropdown-menu-end" aria-
labelledby="navbarDropdown">
                    <li><a class="dropdown-item" href="#">Settings</a></li>
                    <li><a class="dropdown-item" href="#">Activity Log</a></li>
                    <li><hr class="dropdown-divider" /></li>

```

```

        <li><a class="dropdown-item" href="#">Logout</a></li>
    </ul>
</li>
</ul>
-->
</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">메뉴</div>
                    <a sec:authorize="hasAnyRole('USER', 'ADMIN')"
class="nav-link" href="/ipo/ipoDashboard.do">
                        <div class="sb-nav-link-icon"><i class="fas fa-
tachometer-alt"></i></div>
                            공모주 개요
                        </a>
                        <a sec:authorize="hasAnyRole('USER', 'ADMIN')"
class="nav-link" href="/ipo/ipoList.do">
                            <div class="sb-nav-link-icon"><i class="fas fa-
table"></i></div>
                                공모주 목록
                            </a>
                            <a sec:authorize="hasAnyRole('USER', 'ADMIN')"
class="nav-link" href="/ipo/ipoInform.do">
                                <div class="sb-nav-link-icon"><i class="fas fa-book-
open"></i></div>
                                    공모주 안내사항
                                </a>
                                <a sec:authorize="hasRole('ADMIN')" class="nav-link"
href="/ipo/ipoAdmin.do">
                                    <div class="sb-nav-link-icon"><i class="fas fa-chart-
area"></i></div>
                                        관리자 페이지
                                    </a>
                                </div>
                            <div class="sb-sidenav-footer">
                                <div class="small">현재 권한:</div>
                                <b sec:authorize="hasRole('ADMIN')">관리자</b>
                                <b sec:authorize="hasRole('USER')">사용자</b>
                                <b sec:authorize="hasRole('GUEST')">GUEST</b>
                            </div>
                        </nav>
                    </div>
                <div id="layoutSidenav_content">
                    <main>

```

```

        <div class="container-fluid px-4" layout:fragment="content">
            Page Content 여기에 나올거예요. / 만약 이 글자가 보이면
            제대로 로딩되지 못했습니다.
        </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">Copyright &copy; 최현식</div>
                <!--
                <div>
                    <a href="#">Privacy Policy</a>
                    &middot;
                    <a href="#">Terms & Conditions</a>
                </div>
                -->
            </div>
        </div>
    </footer>
</div>
</div>

<!--팝업형식으로 로그아웃버튼이 호출됨-->
<div class="modal fade" id="logoutModal" tabindex="-1" role="dialog"
aria-labelledby="exampleModalLabel"
    aria-hidden="true">
    <div class="modal-dialog" role="document">
        <div class="modal-content">
            <div class="modal-header">
                <h5 class="modal-title"
id="exampleModalLabel">정말 로그아웃 할까요?</h5>
                <button class="close" type="button" data-
dismiss="modal" aria-label="Close">
                    <span aria-hidden="true">×</span>
                </button>
            </div>
            <div class="modal-body">'Logout' 선택시 세션이
종료됩니다.</div>
            <div class="modal-footer">
                <button class="btn btn-secondary"
type="button" data-dismiss="modal">Cancel</button>
                <form method="post" action="/logout"> <!--
스프링 시큐리티 내부에서 관리되는 로그아웃측으로 전송됨-->
                    <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>

```

```

        </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>
        //해당 csrf 토큰값은 상단에 <meta>로 넣어둘경우 spring-security가 알아서
        값을 넣어준다.

        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>
    <th:block layout:fragment="script"></th:block>
</body>
</html>

```

/login/login.html

```

<!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>로그인</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>
    </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>
                <div>
                    <a href="#">Privacy Policy</a>
                    &middot;
                    <a href="#">Terms & Conditions</a>
                </div>
            </div>
        </div>
    </div>
</div>
</div>
-->
</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>

```

/login/register.html

```

<!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>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">Create Account</h3></div>
                    <div class="card-body">
                        <form method="post"> <!-- ajax 처리를 위해서
반드시 post method 입력 -->

                            <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>
                            <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>
                            <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">Password</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">Confirm Password</label>
    </div>
</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>
</div>
-->
<input
type="hidden" th:name="${_csrf.parameterName}" th:value="${_csrf.token}" /> <!--
토근이 없다면 403 오류일어남(비정상접근) -->
<button type="button" class="btn btn-
primary" id="register" style="width: 100%">등록</button>
</form>
</div>
<div class="card-footer text-center py-3">
    <div class="small"><a
href="/login/login.do">Have an account? Go to login</a></div>
</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>
                <div>
                    <a href="#">Privacy Policy</a>
                    &middot;
                    <a href="#">Terms & Conditions</a>
                </div>
            </div>
        </div>
    </div>
</div>
</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 : "json",
            contentType : "application/json",
            success : function(data) {
                if (data.status == "Ok") {
                    alert("계정 신청 접수가
완료되었습니다.\n발송된 이메일을 열어서 인증 처리하시기 바랍니다.");
                    location.href = "/login/login.do";
                }
                else {
                    alert(data.errMsg);
                }
            },
            error : function() {
                alert("저장중 오류가 발생하였습니다.");
            }
        });
    });
</script>
</body>
</html>

```

/login/welcome.html

```

<!DOCTYPE html>
<html lang="en"
    xmlns:th="http://www.thymeleaf.org" x
    mlns:layout="http://www.ultraq.net.nz/thymeleaf/layout"
    xmlns:sec="http://www.thymeleaf.org/extras/spring-security"
    layout:decorator="layout/default_layout">

<head>
    <title>인하대학교</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>
    <br>
    <div style="text-align:center">
        <button sec:authorize="isAnonymous()" type="button" class="btn
btn-danger"
            onclick="location.href='/login/login.do'">로그인</button>
    </div>
    <br>
    <br>
</div>
<!-- /.container-fluid -->

<th:block layout:fragment="script">
</th:block>
</body>
</html>

```

/login/denied.html

```

<!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="layout/default_layout">

<head>
    <title>인해대학교</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>
```

/ipo/ipoAdmin.html

```
<!DOCTYPE html>
```

```
<html lang="ko"
```

```
  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="layout/default_layout"
```

```
>
```

```
  <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>관리자페이지</title>
```

```
    <link href="https://cdn.jsdelivr.net/npm/simple-  
datatables@latest/dist/style.css" rel="stylesheet" />
```

```
    <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>
```

```
    <link rel="stylesheet" href="https://unpkg.com/bootstrap-  
table@1.19.0/dist/bootstrap-table.min.css">
```

```
    <link href="https://unpkg.com/bootstrap-  
table@1.19.0/dist/extensions/page-jump-to/bootstrap-table-page-jump-to.min.css"  
rel="stylesheet">
```

```
    <link rel="stylesheet"  
href="https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.9.4/Chart.min.css">
```

```
  </head>
```

```
  <body class="sb-nav-fixed">
```

```
    <nav class="sb-topnav navbar navbar-expand navbar-dark bg-dark">
```

```
      <!-- Navbar Brand-->
```

```
      <a class="navbar-brand ps-3" href="index.html">Start Bootstrap</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">
        <li class="nav-item dropdown">
            <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>
            <ul class="dropdown-menu dropdown-menu-end" aria-
labelledby="navbarDropdown">
                <li><a class="dropdown-item" href="#">Settings</a></li>
                <li><a class="dropdown-item" href="#">Activity Log</a></li>
                <li><hr class="dropdown-divider" /></li>
                <li><a class="dropdown-item" href="#">Logout</a></li>
            </ul>
        </li>
    </ul>
</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>
                        Dashboard
                    </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-nav-link-icon"><i class="fas fa-
columns"></i></div>
                        Layouts
                    <div class="sb-sidenav-collapse-arrow"><i class="fas
fa-angle-down"></i></div>
                    </a>
                    <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>
                        </nav>
                    </div>
                </div>
            </div>
        </nav>
    </div>

```

```

        <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>
            Pages
            <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>
                </a>
                <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">
                    Error
                    <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>
            </div>

```

```

        </nav>
    </div>
    <div class="sb-sidenav-menu-heading">Addons</div>
    <a class="nav-link" href="charts.html">
        <div class="sb-nav-link-icon"><i class="fas fa-chart-
area"></i></div>
        Charts
    </a>
    <a class="nav-link" href="tables.html">
        <div class="sb-nav-link-icon"><i class="fas fa-
table"></i></div>
        Tables
    </a>
</div>
</div>
<div class="sb-sidenav-footer">
    <div class="small">Logged in as:</div>
    Start Bootstrap
</div>
</nav>
</div>
<div id="layoutSidenav_content" layout:fragment="content">
    <main>
        <div class="container-fluid px-4">
            <h1 class="mt-4">Dashboard</h1>
            <ol class="breadcrumb mb-4">
                <li class="breadcrumb-item active">Dashboard</li>
            </ol>

            <div class="row">
                <div class="col-xl">
                    <div class="card mb-4">
                        <div class="card-header">
                            <i class="fas fa-chart-area me-1"></i>
                            Client API 요청 건 수
                        </div>
                        <div class="card-body">
                            <canvas id="myChart" style="width:100%;
height: 40%;"></canvas>
                        </div>
                    </div>
                </div>
            </div>
        </div>
    </main>

    <div class="card mb-4">
        <div class="card-header">

```



```

        <i class="fas fa-table me-1"></i>
        System Log
    </div>
    <div class="card-body">
        <table class="table table-bordered table-sm"
id="table" data-toggle="table" data-search="true"
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-show-pagination-
switch="true"
data-pagination=" true "
data-page-size="10"
data-page-list="[5, 10,
15, all]"
data-show-jump-to="true"
data-show-export="true"
data-export-data-
type="all"
data-
url="/ipo/ipoSystemLog.ajax" data-sort-name="logIndex" data-sort-order="desc">
        <thead>
            <tr>
                <th data-
field="logIndex" data-sortable="true" data-align="center">Index</th>
                <th data-
field="type" data-sortable="true" data-align="left">Type</th>
                <th data-
field="target" data-sortable="true" data-align="left">Target</th>
                <th data-
field="result" data-sortable="true" data-align="center">Result</th>
                <th data-
field="logDate" data-sortable="true" data-align="center">Date</th>
            </tr>
        </thead>
    </table>
    </div>

```

```

        </div>
    </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">Copyright &copy; Your Website
2021</div>
            <div>
                <a href="#">Privacy Policy</a>
                &middot;
                <a href="#">Terms & Conditions</a>
            </div>
        </div>
    </div>
</footer>
</div>
</div>

<th:block layout:fragment="script">
    <script src="https://unpkg.com/bootstrap-
table@1.19.0/dist/bootstrap-table.min.js"></script>
    <script src="https://unpkg.com/bootstrap-
table@1.19.0/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@1.19.0/dist/extensions/export/bootstrap-table-export.min.js"></script>
    <script src="https://unpkg.com/bootstrap-
table@1.19.0/dist/extensions/print/bootstrap-table-print.min.js"></script>

    <script
src="https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.9.4/Chart.min.js"></script>
    <script>
const ctx = document.getElementById('myChart').getContext('2d');
var config = {
    type: 'pie',
    data: {
        labels: ['GET', 'POST', 'PUT', 'DELETE'],
        datasets: [{
            label: '# of Votes',
            data: [12, 19, 3, 15],
            backgroundColor: [
                'rgba(255, 99, 132, 0.2)',
                'rgba(54, 162, 235, 0.2)',
                'rgba(255, 206, 86, 0.2)',

```

```

        'rgba(255, 159, 64, 0.2)'
    ],
    borderColor: [
        'rgba(255, 99, 132, 1)',
        'rgba(54, 162, 235, 1)',
        'rgba(255, 206, 86, 1)',
        'rgba(255, 159, 64, 1)'
    ],
    borderWidth: 1
    ]]
},
options: {
    scales: {
        y: {
            beginAtZero: true
        }
    }
}
}
myChart = new Chart(ctx, config);

ajaxApi(0);
function ajaxApi(typeNumber) {
    //myChart.config.data.labels =
["GET","123","hello","GET"];
    //myChart.config.data.datasets[0].data = [1,2,3,10];
    //myChart.update();

    $.ajax({
        url : "/ipo/ipoSystemLog.ajax",
        type : "GET",
        data : {
            //'jongmokCode' : jongmokCode
        },
        success : function(data) {
            try {
                var dataArrLabel = ["GET", "POST",
"PUT", "DELETE"];

                //var dataArrLabel = new Array();
                var dataArrCount = [0,0,0,0];
                //var dataArrCount = new Array();

                for (var i = 0; i < data.length; i++)

                    var logType = data[i]['type'];

                    if(logType == "GET")
                        dataArrCount[0]++;
                    else if(logType == "POST")

```

```

                                dataArrCount[1]++;
                                else if(logType == "PUT")
                                    dataArrCount[2]++;
                                else if(logType == "DELETE")
                                    dataArrCount[3]++;

                                //dataArrCount.push(data[i]['logIndex']);
                                }

                                myChart.config.data.labels =
dataArrLabel;

                                myChart.config.data.datasets[0].data =
dataArrCount;

                                myChart.update();
                                } catch (e) {
                                    this.error();
                                    return;
                                }
                                },
                                error : function() {
                                    alert("조회중 오류가 발생하였습니다.");
                                }
                                })
                                };
                                </script>
                                </th>

                                <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
src="https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.8.0/Chart.min.js"
crossorigin="anonymous"></script>
                                <script src="https://cdn.jsdelivr.net/npm/simple-datatables@latest"
crossorigin="anonymous"></script>
                                </body>
                                </html>

```

/ipo/ipoDashboard.html

```

<!DOCTYPE html>
<html lang="ko"
    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="layout/default_layout"
>

<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>공모주 개요</title>
<link href="https://cdn.jsdelivr.net/npm/simple-
datatables@latest/dist/style.css" rel="stylesheet" />
<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>
<link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.9.4/Chart.min.css">
</head>
<body class="sb-nav-fixed">
  <nav class="sb-topnav navbar navbar-expand navbar-dark bg-dark">
    <!-- Navbar Brand-->
    <a class="navbar-brand ps-3" href="index.html">Start Bootstrap</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">
      <li class="nav-item dropdown">
        <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>
        <ul class="dropdown-menu dropdown-menu-end" aria-
labelledby="navbarDropdown">
          <li><a class="dropdown-item" href="#">Settings</a></li>
          <li><a class="dropdown-item" href="#">Activity Log</a></li>
          <li><hr class="dropdown-divider" /></li>
          <li><a class="dropdown-item" href="#">Logout</a></li>
        </ul>
      </li>
    </ul>
  </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>
          Dashboard
        </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-nav-link-icon"><i class="fas fa-
columns"></i></div>
          Layouts
          <div class="sb-sidenav-collapse-arrow"><i class="fas
fa-angle-down"></i></div>
        </a>
        <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>
          </nav>
        </div>
        <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>
          Pages
          <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>

```

```

        </a>
        <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">
            Error
            <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>
    </div>
    </nav>
</div>
<div class="sb-sidenav-menu-heading">Addons</div>
<a class="nav-link" href="charts.html">
    <div class="sb-nav-link-icon"><i class="fas fa-chart-
area"></i></div>
    Charts
</a>
<a class="nav-link" href="tables.html">
    <div class="sb-nav-link-icon"><i class="fas fa-
table"></i></div>
    Tables
</a>
</div>
<div class="sb-sidenav-footer">
    <div class="small">Logged in as:</div>
    Start Bootstrap
</div>

```



```

ipoLink" href="#">View Details</a>
                                <div class="small text-white"><i class="fas
fa-angle-right"></i></div>
                                </div>
                                </div>
                                </div>
                                <div class="col-xl-3 col-md-6">
                                <div class="quickslot card bg-danger text-white mb-
4">
                                <div class="card-body"><span
class="ipoCard">항목3</span></div>
                                <div class="card-footer d-flex align-items-center
justify-content-between">
                                <a class="small text-white stretched-link
ipoLink" href="#">View Details</a>
                                <div class="small text-white"><i class="fas
fa-angle-right"></i></div>
                                </div>
                                </div>
                                </div>
                                <div class="col-xl-3 col-md-6">
                                <div class="quickslot card bg-danger text-white mb-
4">
                                <div class="card-body"><span
class="ipoCard">항목4</span></div>
                                <div class="card-footer d-flex align-items-center
justify-content-between">
                                <a class="small text-white stretched-link
ipoLink" href="#">View Details</a>
                                <div class="small text-white"><i class="fas
fa-angle-right"></i></div>
                                </div>
                                </div>
                                </div>
                                </div>
                                <div class="row">
                                <div class="col-xl-3 col-md-6">
                                <div class="quickslot card bg-danger text-white mb-
4">
                                <div class="card-body"><span
class="ipoCard">항목5</span></div>
                                <div class="card-footer d-flex align-items-center
justify-content-between">
                                <a class="small text-white stretched-link
ipoLink" href="#">View Details</a>
                                <div class="small text-white"><i class="fas
fa-angle-right"></i></div>
                                </div>
                                </div>
                                </div>

```

```

        </div>
        <div class="col-xl-3 col-md-6">
            <div class="quickslot card bg-danger text-white mb-
4">
                <div class="card-body"><span
class="ipoCard">항목6</span></div>
                <div class="card-footer d-flex align-items-center
justify-content-between">
                    <a class="small text-white stretched-link
ipoLink" href="#">View Details</a>
                    <div class="small text-white"><i class="fas
fa-angle-right"></i></div>
                </div>
            </div>
        </div>
    </div>
    <div class="col-xl-3 col-md-6">
        <div class="quickslot card bg-danger text-white mb-
4">
            <div class="card-body"><span
class="ipoCard">항목7</span></div>
            <div class="card-footer d-flex align-items-center
justify-content-between">
                <a class="small text-white stretched-link
ipoLink" href="#">View Details</a>
                <div class="small text-white"><i class="fas
fa-angle-right"></i></div>
            </div>
        </div>
    </div>
    <div class="col-xl-3 col-md-6">
        <div class="quickslot card bg-danger text-white mb-
4">
            <div class="card-body"><span
class="ipoCard">항목8</span></div>
            <div class="card-footer d-flex align-items-center
justify-content-between">
                <a class="small text-white stretched-link
ipoLink" href="#">View Details</a>
                <div class="small text-white"><i class="fas
fa-angle-right"></i></div>
            </div>
        </div>
    </div>
</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">Copyright &copy; Your Website
2021</div>
                <div>
                    <a href="#">Privacy Policy</a>
                    &middot;
                    <a href="#">Terms & Conditions</a>
                </div>
            </div>
        </div>
    </footer>
    ->
</div>
</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>
<script
src="https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.8.0/Chart.min.js"
crossorigin="anonymous"></script>
<script src="https://cdn.jsdelivr.net/npm/simple-datatables@latest"
crossorigin="anonymous"></script>

<th:block layout:fragment="script">
    <script
src="https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.9.4/Chart.min.js"></script>
    <script>
        const ctx =
document.getElementById('myChart').getContext('2d');
        var config = {
            type: 'line',
            data: {
                labels: ['A', 'B', 'C', 'D'],
                datasets: [{
                    label: '수익률',
                    data: [100, 200, 300, -100],
                    yAxisID: 'moreMoney',
                    backgroundColor: [
                        'rgba(255, 99, 132, 0.2)'
                    ],
                    borderColor: [
                        'rgba(255, 99, 132, 1)'
                    ],
                    borderWidth: 1
                }]
            }
        }
    </script>

```

```

    },
    options: {
        scales: {
            y: {
                beginAtZero: true
            },
            yAxes : [{
                id: 'moreMoney',
                ticks : {
                    min: -100,
                    max: 300
                },
                gridLines : {
                    display: true
                }
            }]
        }
    },
    legend: {
        reverse: true
    }
}
myChart = new Chart(ctx, config);

var dataIpoStartDate = new Array();
var dataIpoRefundDate = new Array();
var dataDebutDday = new Array();
ajaxApi(0);
function ajaxApi(typeNumber) {
    $.ajax({
        url : "/ipo/ipoList.ajax",
        type : "GET",
        data : {
            //'jongmokCode' : jongmokCode
        },
        success : function(data) {
            try {
                var dataArrLabel = new Array();
                var dataArrPercent = new
Array();
                var dataIpoCard =
document.getElementsByClassName("ipoCard");
                var dataIpoLink =
document.getElementsByClassName("ipoLink");
                var dataIpoCardBg =
document.getElementsByClassName("quickslot");

                for (var i = 0; i < data.length;
i++) {

```

```

        if(data[i]['debutPrice'] != 0) {

            dataArrLabel.push(data[i]['stockName']);

            (data[i]['debutPrice'] / data[i]['ipoPrice']) * 100 - 100;

            profit.toFixed(2);

            dataArrPercent.push(profit);

        }

        if(i < 8) {
            // 하단 카드 정보

            stateValue =

            checkState(data[i]['ipoStartDate'], data[i]['ipoRefundDate'],
            data[i]['ipoDebutDate']));

            dataIpoCard[i].innerHTML = "[" + stateValue + "]" + data[i]['stockName'];

            dataIpoLink[i].href = "/ipo/"+data[i]['ipoIndex'];

            if(stateValue ==

            "상장")

            dataIpoCardBg[i].style.setProperty("background-color", "lightgray",
            "important");

        }

        //dataArrCount.push(data[i]['logIndex']);

        if(i >16) //최근 16개만

        break;

    }

    myChart.config.data.labels =

    dataArrLabel;

    myChart.config.data.datasets[0].data = dataArrPercent;

    myChart.update();
    } catch (e) {
        this.error();
        return;
    }
},

```

기입

표시

```

        error : function() {
            alert("조회중 오류가
발생하였습니다.");
        }
    })
};
</script>
<script>
    function checkState(startDate, refundDate, debutDate) {

        //일정 Dday 업데이트
        var startDday = checkDday(startDate);
        var refundDday = checkDday(refundDate);
        var debutDday = checkDday(debutDate);

        //타이틀 값 업데이트
        var nowState;

        if(startDday > 0)
            nowState = "공모예정";
        else if(startDday == 0)
            nowState = "청약시작";
        else if(startDday == -1)
            nowState = "마감임박";
        else if(refundDday > 0)
            nowState = "배정대기";
        else if(refundDday == 0)
            nowState = "환불진행";
        else if(debutDday > 0)
            nowState = "상장대기";
        else if(debutDday <= 0)
            nowState = "상장";

        return nowState;
    };

    function checkDday(dday) {
        var dday_arr = dday.split("-");
        var now = new Date();
        var year = now.getFullYear();
        var month = now.getMonth() + 1;
        var day = now.getDate();

        var sDate = new Date(dday_arr[0], dday_arr[1],
dday_arr[2]);

        var eDate = new Date(year, month, day);

        var result = (eDate.getTime() - sDate.getTime()) /
(1000*60*60*24) * -1;

```

```

                                return result;
                            }
                        }
                    }
                }
            }
        }
    }
}
</script>
</th:block>
</body>
</html>

```

/ipo/ipoDetail.html

```

<!DOCTYPE html>
<html lang="ko"
    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="layout/default_layout"
>
<head>
    <meta charset="UTF-8">
    <title th:text="${ipo.stockName}"></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">

        <h1>
            [<span id="ipoState">상태</span>]
            <input type="text" th:value="${ipo.stockName}" style="border: 0
solid;" readonly>
        </h1>
        <hr/>

        <form id="frm" name="frm" method="post">
            <div class="row">
                <div class="card" style="width: 30%; margin: 1%;">
                    <div class="card-body">
                        <h5 class="card-title">공모 시작일 <span
id="startDday" style="color: red; font-weight:bold"></span></h5>
                        <p class="card-text">
                            <input type="date" id="ipoStartDate"
style="background-color: rgba( 255, 255, 255, 0 ); border: 0 solid;"
th:value="${ipo.ipoStartDate}" readonly>
                        </p>
                    </div>
                </div>
            </div>
        </form>
    </div>

```

```

        <div class="card" style="width: 30%; margin: 1%;">
            <div class="card-body">
                <h5 class="card-title">환불 진행일 <span
id="refundDday" style="color: red; font-weight:bold"></span></h5>
                <p class="card-text">
                    <input type="date" id="ipoRefundDate"
style="background-color: rgba( 255, 255, 255, 0 ); border: 0 solid;"
th:value="{ipo.ipoRefundDate}" readonly>
                </p>
            </div>
        </div>
        <div class="card" style="width: 30%; margin: 1%;">
            <div class="card-body">
                <h5 class="card-title">신규 상장일 <span
id="debutDday" style="color: red; font-weight:bold"></span></h5>
                <p class="card-text">
                    <input type="date" id="ipoDebutDate"
style="background-color: rgba( 255, 255, 255, 0 ); border: 0 solid;"
th:value="{ipo.ipoDebutDate}" readonly>
                </p>
            </div>
        </div>
    </div>
    <br/>
    <div class="row">
        <div class="col-lg-3">
            <div class="input-group mb-3">
                <span class="input-group-
text">시장구분</span>
                <input type="text" class="form-control"
th:value="{ipo.stockExchange}" readonly>
            </div>
            <div class="input-group mb-3">
                <span class="input-group-
text">종목코드</span>
                <input type="text" class="form-control"
th:value="{ipo.stockCode}" readonly>
            </div>
        </div>
        <div class="col-lg-3">
            <div class="input-group mb-3">
                <span class="input-group-text">확정
공모가</span>
                <input type="text" id="ipoPrice" class="form-
control" th:value="{ipo.ipoPrice}" readonly>
            </div>
            <div class="input-group mb-3">
                <span class="input-group-text">상장일
종가</span>

```



```

<input type="text" id="debutPrice"
class="form-control" th:value="${ipo.debutPrice}" readonly>
</div>
</div>
<div class="col-lg-6">
<div class="input-group mb-3">
<span class="input-group-text">업종</span>
<input type="text" class="form-control"
th:value="${ipo.sector}" readonly>
</div>

<div class="input-group mb-3">
<span class="input-group-text">주간사</span>
<input type="text" class="form-control"
th:value="${ipo.underwriter}" readonly>
</div>
</div>
<div class="col-lg-6">
<div class="input-group mb-3">
<span class="input-group-
text">기관경쟁률</span>
<input type="text"
id="ipoInstitutionalAcceptanceRate" class="form-control"
th:value="${ipo.ipoInstitutionalAcceptanceRate}+' :1'" readonly>
</div>
<div class="input-group mb-3">
<span class="input-group-
text">청약경쟁률</span>
<input type="text" class="form-control"
th:value="${ipo.ipoRetailAcceptanceRate}+' :1'" readonly>
</div>
</div>
<div class="col-lg-6">
<div class="input-group mb-3">
<span class="input-group-
text">의무보유확약</span>
<input type="text" class="form-control"
th:value="${ipo.lockUpPercent}+' %'" readonly>
</div>
<div class="input-group mb-3">
<span class="input-group-
text">발행주식수</span>
<input type="text" class="form-control"
id="numberOfIpoShares" data-formatter="numberFormatter"
th:value="${ipo.numberOfIpoShares}" readonly>
</div>
</div>
</div>

```

```

        <input type="hidden" id="ipoIndex" name="ipoIndex"
th:value="${ipo.ipoIndex}">
        <input type="hidden" th:name="${_csrf.parameterName}"
th:value="${_csrf.token}" />
        <input type="hidden" name="_method" id="method">
    </form>

    <a href="#this" id="list" class="btn btn-warning">목록</a>
    <a sec:authorize="hasRole('ADMIN')" href="#this" id="edit" class="btn
btn-warning">수정</a>
    <a sec:authorize="hasRole('ADMIN')" href="#this" id="delete" class="btn
btn-warning">삭제</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 () {
            var ipoIndex = $("#ipoIndex").val();
            var theForm = document.frm;

            $("#list").on("click", function () {
                location.href = "/ipo/ipoList.do";
            });

            $("#edit").on("click", function () {
                var frm = $("#frm")[0];
                frm.action = "/ipo/ipoEditer.do";
                frm.submit();
            });

            $("#delete").on("click", function() {
                $("#method").val("delete");
                var frm=$("#frm")[0];
                frm.action = "/ipo/"+ipoIndex;
                frm.submit();
            });

            checkState();

            numberFormatterId("numberOfIpoShares");
            numberFormatterId("ipoPrice");
            numberFormatterId("debutPrice");
        });
    </script>

```

```
function viewButton(value) {  
    //html format을 바꿔줌. 이건 버튼형식으로 바꿔주는것. (치환)  
    return '<button type="button" class="btn btn-secondary btn-sm" style="padding-top:0">' + value + '</button>'  
};
```

```
function numberFormatter(value) {  
    //매 3번째 글자마다 쉼표를 추가함 (예를들어 1000은 => 1,000)  
    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;  
};
```

```
function numberFormatterId(id) {  
    var documentObject = document.getElementById(id);  
    var value = numberFormatter(documentObject.value);  
  
    //매 3번째 글자마다 쉼표를 추가함 (예를들어 1000은 => 1,000)  
    if (value === 0) return 0;  
    const reg = /(^[+-]?\d+)(\d{3})/;  
    let n = (value + '');  
    while (reg.test(n)) n = n.replace(reg, '$1' + ',' + '$2');  
  
    documentObject.value = n;  
};
```

```
function checkState() {  
    //변수선언  
    var docIpoState = document.getElementById("ipoState");  
    var docStartDate = document.getElementById("startDate");  
    var docRefundDay = document.getElementById("refundDay");  
    var docDebutDay = document.getElementById("debutDay");  
  
    //일정 Dday 업데이트  
    var startDate = checkDday($("#ipoStartDate").val());  
    var refundDay = checkDday($("#ipoRefundDate").val());  
    var debutDay = checkDday($("#ipoDebutDate").val());  
  
    docStartDate.innerHTML = stringDday(startDate);  
    docRefundDay.innerHTML = stringDday(refundDay);  
    docDebutDay.innerHTML = stringDday(debutDay);  
  
    //타이틀 값 업데이트  
    var nowState;
```

```

        if(startDday > 0)
            nowState = "공모예정";
        else if(startDday == 0)
            nowState = "청약시작";
        else if(startDday == -1)
            nowState = "마감임박";
        else if(refundDday > 0)
            nowState = "배정대기";
        else if(refundDday == 0)
            nowState = "환불진행";
        else if(debutDday > 0)
            nowState = "상장대기";
        else if(debutDday <= 0)
            nowState = "상장";
        docIpoState.innerHTML = nowState;
    };

    function checkDday(dday) {
        var dday_arr = dday.split("-");
        var now = new Date();
        var year = now.getFullYear();
        var month = now.getMonth() + 1;
        var day = now.getDate();

        var sDate = new Date(dday_arr[0], dday_arr[1], dday_arr[2]);
        var eDate = new Date(year, month, day);

        var result = (eDate.getTime() - sDate.getTime()) /
(1000*60*60*24) * -1;
        return result;
    }
    function stringDday(result) {
        if(result < 0) {
            return '';
        }else if(result == 0) {
            return "(당일)"
        }
        return "(" + result + "일전)";
    }
}
</script>
</th:block>
</body>
</html>

```

/ipo/ipoEditor.html

```

<!DOCTYPE html>
<html lang="ko"
    xmlns:th="http://www.thymeleaf.org"
    xmlns:layout="http://www.ultraq.net.nz/thymeleaf/layout"

```



```

<h5 class="card-title">신규 상장일<span
id="debutDday"></span></h5>

<p class="card-text">
    <input type="date" id="ipoDebutDate"
name="ipoDebutDate" style="background-color: rgba( 255, 255, 255, 0 ); border: 0
solid;" th:value="{ipo.ipoDebutDate}" >
</p>
</div>
</div>
<br/>
<div class="row">
    <div class="col-lg-3">
        <div class="input-group mb-3">
            <span class="input-group-
text">시장구분</span>
                <input type="text" id="stockExchange"
name="stockExchange" class="form-control" th:value="{ipo.stockExchange}" >
            </div>
            <div class="input-group mb-3">
                <span class="input-group-
text">종목코드</span>
                <input type="text" id="stockCode"
name="stockCode" class="form-control" th:value="{ipo.stockCode}" >
            </div>
        </div>
        <div class="col-lg-3">
            <div class="input-group mb-3">
                <span class="input-group-text">확정
공모가</span>
                <input type="text" id="ipoPrice"
name="ipoPrice" class="form-control" th:value="{ipo.ipoPrice}" >
            </div>
            <div class="input-group mb-3">
                <span class="input-group-text">상장일
종가</span>
                <input type="text" id="debutPrice"
name="debutPrice" class="form-control" th:value="{ipo.debutPrice}" >
            </div>
        </div>
        <div class="col-lg-6">
            <div class="input-group mb-3">
                <span class="input-group-text">업종</span>
                <input type="text" id="sector" name="sector"
class="form-control" th:value="{ipo.sector}" >
            </div>
            <div class="input-group mb-3">
                <span class="input-group-text">주간사</span>

```

```

<input type="text" id="underwriter"
name="underwriter" class="form-control" th:value="${ipo.underwriter}" >
</div>
</div>
<div class="col-lg-6">
<div class="input-group mb-3">
<span class="input-group-
text">기관경쟁률</span>
<input type="text"
id="ipoInstitutionalAcceptanceRate" name="ipoInstitutionalAcceptanceRate"
class="form-control" th:value="${ipo.ipoInstitutionalAcceptanceRate}" >
</div>
<div class="input-group mb-3">
<span class="input-group-
text">청약경쟁률</span>
<input type="text"
id="ipoRetailAcceptanceRate" name="ipoRetailAcceptanceRate" class="form-control"
th:value="${ipo.ipoRetailAcceptanceRate}" >
</div>
</div>
<div class="col-lg-6">
<div class="input-group mb-3">
<span class="input-group-
text">의무보유확약</span>
<input type="text" id="lockUpPercent"
name="lockUpPercent" class="form-control" th:value="${ipo.lockUpPercent}" >
</div>
<div class="input-group mb-3">
<span class="input-group-
text">발행주식수</span>
<input type="text" id="numberOfIpoShares"
name="numberOfIpoShares" class="form-control" th:value="${ipo.numberOfIpoShares}" >
</div>
</div>
</div>
<input type="hidden" id="ipoIndex" name="ipoIndex"
th:value="${ipo.ipoIndex}" />
<!--
<input type="hidden" th:name="${_csrf.parameterName}"
th:value="${_csrf.token}" />
-->
<input type="hidden" name="_method" id="method">
</form>

<a href="#this" id="list" class="btn btn-warning">취소</a>
<a sec:authorize="hasRole('ADMIN')" href="#this" id="submit" class="btn
btn-warning">작성완료</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 () {
            var ipoIndex = $("#ipoIndex").val();

            $("#list").on("click", function () {
                location.href = "/ipo/"+ipoIndex;
            });

            $("#submit").on("click", function() {
                $("#method").val("put");
                var frm=$("#frm")[0];
                frm.action = "/ipo/"+ipoIndex;

                var ipoStartDate =
document.getElementById("ipoStartDate");
                var ipoRefundDate =
document.getElementById("ipoRefundDate");
                var ipoDebutDate =
document.getElementById("ipoDebutDate");
                if(ipoStartDate.value == "") {
                    alert("공모 시작일을 입력해주세요.");
                    return -1;
                }
                if(ipoRefundDate.value == "") {
                    alert("환불 진행일을 입력해주세요.");
                    return -1;
                }
                if(ipoDebutDate.value == "") {
                    alert("신규 상장일을 입력해주세요.");
                    return -1;
                }
                var requireForm =
document.getElementsByClassName("form-control");
                for(var i=0; i<requireForm.length; i++) {
                    if(requireForm[i].value == "") {
                        alert("모든 값을 입력해주세요.");
                        return -1;
                    }
                }

                frm.submit();
            }
        });
    </script>

```



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

/ipo/ipoInform.html

```
<!DOCTYPE html>  
<html lang="ko"  
  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="layout/default_layout"  
>  
  
<head>  
  <meta charset='UTF-8'>  
  <meta name='viewport' content='width=device-width initial-scale=1'>  
  <link  
href='https://fonts.loli.net/css?family=Open+Sans:400italic,700italic,700,400&subset=  
latin,latin-ext'  
    rel='stylesheet' type='text/css' />  
  <style type='text/css'>  
    html {  
      overflow-x: initial !important;  
    }  
  
    :root {  
      --bg-color: #ffffff;  
      --text-color: #333333;  
      --select-text-bg-color: #B5D6FC;  
      --select-text-font-color: auto;  
      --monospace: "Lucida Console", Consolas, "Courier", monospace;  
      --title-bar-height: 20px;  
    }  
  
    .mac-os-11 {  
      --title-bar-height: 28px;  
    }  
  
    html {  
      font-size: 14px;  
      background-color: var(--bg-color);  
      color: var(--text-color);  
      font-family: "Helvetica Neue", Helvetica, Arial, sans-serif;  
      -webkit-font-smoothing: antialiased;  
    }
```

```
body {
    margin: 0px;
    padding: 0px;
    height: auto;
    inset: 0px;
    font-size: 1rem;
    line-height: 1.42857;
    overflow-x: hidden;
    background: inherit;
    tab-size: 4;
}

iframe {
    margin: auto;
}

a.url {
    word-break: break-all;
}

a:active,
a:hover {
    outline: 0px;
}

.in-text-selection,
::selection {
    text-shadow: none;
    background: var(--select-text-bg-color);
    color: var(--select-text-font-color);
}

#write {
    margin: 0px auto;
    height: auto;
    width: inherit;
    word-break: normal;
    overflow-wrap: break-word;
    position: relative;
    white-space: normal;
    overflow-x: visible;
    padding-top: 36px;
}

#write.first-line-indent p {
    text-indent: 2em;
}

#write.first-line-indent li p,
```

```
#write.first-line-indent p * {
    text-indent: 0px;
}

#write.first-line-indent li {
    margin-left: 2em;
}

.for-image #write {
    padding-left: 8px;
    padding-right: 8px;
}

body.typora-export {
    padding-left: 30px;
    padding-right: 30px;
}

.typora-export .footnote-line,
.typora-export li,
.typora-export p {
    white-space: pre-wrap;
}

.typora-export .task-list-item input {
    pointer-events: none;
}

@media screen and (max-width: 500px) {
    body.typora-export {
        padding-left: 0px;
        padding-right: 0px;
    }

    #write {
        padding-left: 20px;
        padding-right: 20px;
    }

    .CodeMirror-sizer {
        margin-left: 0px !important;
    }

    .CodeMirror-gutters {
        display: none !important;
    }
}

#write li>figure:last-child {
```

```
        margin-bottom: 0.5rem;
    }

    #write ol,
    #write ul {
        position: relative;
    }

    img {
        max-width: 100%;
        vertical-align: middle;
        image-orientation: from-image;
    }

    button,
    input,
    select,
    textarea {
        color: inherit;
        font: inherit;
    }

    input[type="checkbox"],
    input[type="radio"] {
        line-height: normal;
        padding: 0px;
    }

    *,
    ::after,
    ::before {
        box-sizing: border-box;
    }

    #write h1,
    #write h2,
    #write h3,
    #write h4,
    #write h5,
    #write h6,
    #write p,
    #write pre {
        width: inherit;
    }

    #write h1,
    #write h2,
    #write h3,
    #write h4,
```

```
#write h5,  
#write h6,  
#write p {  
    position: relative;  
}  
  
p {  
    line-height: inherit;  
}  
  
h1,  
h2,  
h3,  
h4,  
h5,  
h6 {  
    break-after: avoid-page;  
    break-inside: avoid;  
    orphans: 4;  
}  
  
p {  
    orphans: 4;  
}  
  
h1 {  
    font-size: 2rem;  
}  
  
h2 {  
    font-size: 1.8rem;  
}  
  
h3 {  
    font-size: 1.6rem;  
}  
  
h4 {  
    font-size: 1.4rem;  
}  
  
h5 {  
    font-size: 1.2rem;  
}  
  
h6 {  
    font-size: 1rem;  
}
```

```
.md-math-block,  
.md-rawblock,  
h1,  
h2,  
h3,  
h4,  
h5,  
h6,  
p {  
    margin-top: 1rem;  
    margin-bottom: 1rem;  
}  
  
.hidden {  
    display: none;  
}  
  
.md-blockmeta {  
    color: rgb(204, 204, 204);  
    font-weight: 700;  
    font-style: italic;  
}  
  
a {  
    cursor: pointer;  
}  
  
sup.md-footnote {  
    padding: 2px 4px;  
    background-color: rgba(238, 238, 238, 0.7);  
    color: rgb(85, 85, 85);  
    border-radius: 4px;  
    cursor: pointer;  
}  
  
sup.md-footnote a,  
sup.md-footnote a:hover {  
    color: inherit;  
    text-transform: inherit;  
    text-decoration: inherit;  
}  
  
#write input[type="checkbox"] {  
    cursor: pointer;  
    width: inherit;  
    height: inherit;  
}  
  
figure {
```

```
        overflow-x: auto;
        margin: 1.2em 0px;
        max-width: calc(100% + 16px);
        padding: 0px;
    }

    figure>table {
        margin: 0px;
    }

    tr {
        break-inside: avoid;
        break-after: auto;
    }

    thead {
        display: table-header-group;
    }

    table {
        border-collapse: collapse;
        border-spacing: 0px;
        width: 100%;
        overflow: auto;
        break-inside: auto;
        text-align: left;
    }

    table.md-table td {
        min-width: 32px;
    }

    .CodeMirror-gutters {
        border-right: 0px;
        background-color: inherit;
    }

    .CodeMirror-linenumber {
        user-select: none;
    }

    .CodeMirror {
        text-align: left;
    }

    .CodeMirror-placeholder {
        opacity: 0.3;
    }
```

```
.CodeMirror pre {
    padding: 0px 4px;
}

.CodeMirror-lines {
    padding: 0px;
}

div.hr:focus {
    cursor: none;
}

#write pre {
    white-space: pre-wrap;
}

#write.fences-no-line-wrapping pre {
    white-space: pre;
}

#write pre.ty-contain-cm {
    white-space: normal;
}

.CodeMirror-gutters {
    margin-right: 4px;
}

.md-fences {
    font-size: 0.9rem;
    display: block;
    break-inside: avoid;
    text-align: left;
    overflow: visible;
    white-space: pre;
    background: inherit;
    position: relative !important;
}

.md-fences-adv-panel {
    width: 100%;
    margin-top: 10px;
    text-align: center;
    padding-top: 0px;
    padding-bottom: 8px;
    overflow-x: auto;
}

#write .md-fences.mock-cm {
```



```
        white-space: pre-wrap;
    }

    .md-fences.md-fences-with-lineno {
        padding-left: 0px;
    }

    #write.fences-no-line-wrapping .md-fences.mock-cm {
        white-space: pre;
        overflow-x: auto;
    }

    .md-fences.mock-cm.md-fences-with-lineno {
        padding-left: 8px;
    }

    .CodeMirror-line,
    twitterwidget {
        break-inside: avoid;
    }

    .footnotes {
        opacity: 0.8;
        font-size: 0.9rem;
        margin-top: 1em;
        margin-bottom: 1em;
    }

    .footnotes+.footnotes {
        margin-top: 0px;
    }

    .md-reset {
        margin: 0px;
        padding: 0px;
        border: 0px;
        outline: 0px;
        vertical-align: top;
        background: 0px 0px;
        text-decoration: none;
        text-shadow: none;
        float: none;
        position: static;
        width: auto;
        height: auto;
        white-space: nowrap;
        cursor: inherit;
        -webkit-tap-highlight-color: transparent;
        line-height: normal;
```

```
        font-weight: 400;
        text-align: left;
        box-sizing: content-box;
        direction: ltr;
    }

    li div {
        padding-top: 0px;
    }

    blockquote {
        margin: 1rem 0px;
    }

    li .mathjax-block,
    li p {
        margin: 0.5rem 0px;
    }

    li blockquote {
        margin: 1rem 0px;
    }

    li {
        margin: 0px;
        position: relative;
    }

    blockquote> :last-child {
        margin-bottom: 0px;
    }

    blockquote> :first-child,
    li> :first-child {
        margin-top: 0px;
    }

    .footnotes-area {
        color: rgb(136, 136, 136);
        margin-top: 0.714rem;
        padding-bottom: 0.143rem;
        white-space: normal;
    }

    #write .footnote-line {
        white-space: pre-wrap;
    }

    @media print {
```

```

body,
html {
    border: 1px solid transparent;
    height: 99%;
    break-after: avoid;
    break-before: avoid;
    font-variant-ligatures: no-common-ligatures;
}

#write {
    margin-top: 0px;
    padding-top: 0px;
    border-color: transparent !important;
}

.typora-export * {
    -webkit-print-color-adjust: exact;
}

.typora-export #write {
    break-after: avoid;
}

.typora-export #write::after {
    height: 0px;
}

.is-mac table {
    break-inside: avoid;
}

.typora-export-show-outline .typora-export-sidebar {
    display: none;
}

}

.footnote-line {
    margin-top: 0.714em;
    font-size: 0.7em;
}

a img,
img a {
    cursor: pointer;
}

pre.md-meta-block {
    font-size: 0.8rem;
}

```

```

        min-height: 0.8rem;
        white-space: pre-wrap;
        background: rgb(204, 204, 204);
        display: block;
        overflow-x: hidden;
    }

    p>.md-image:only-child:not(.md-img-error) img,
    p>img:only-child {
        display: block;
        margin: auto;
    }

    #write.first-line-indent p>.md-image:only-child:not(.md-img-error) img {
        left: -2em;
        position: relative;
    }

    p>.md-image:only-child {
        display: inline-block;
        width: 100%;
    }

    #write .MathJax_Display {
        margin: 0.8em 0px 0px;
    }

    .md-math-block {
        width: 100%;
    }

    .md-math-block:not(:empty)::after {
        display: none;
    }

    .MathJax_ref {
        fill: currentcolor;
    }

    [contenteditable="true"]:active,
    [contenteditable="true"]:focus,
    [contenteditable="false"]:active,
    [contenteditable="false"]:focus {
        outline: 0px;
        box-shadow: none;
    }

    .md-task-list-item {
        position: relative;
    }

```

```
        list-style-type: none;
    }

    .task-list-item.md-task-list-item {
        padding-left: 0px;
    }

    .md-task-list-item>input {
        position: absolute;
        top: 0px;
        left: 0px;
        margin-left: -1.2em;
        margin-top: calc(1em - 10px);
        border: none;
    }

    .math {
        font-size: 1rem;
    }

    .md-toc {
        min-height: 3.58rem;
        position: relative;
        font-size: 0.9rem;
        border-radius: 10px;
    }

    .md-toc-content {
        position: relative;
        margin-left: 0px;
    }

    .md-toc-content::after,
    .md-toc::after {
        display: none;
    }

    .md-toc-item {
        display: block;
        color: rgb(65, 131, 196);
    }

    .md-toc-item a {
        text-decoration: none;
    }

    .md-toc-inner:hover {
        text-decoration: underline;
    }
}
```

```
.md-toc-inner {
    display: inline-block;
    cursor: pointer;
}

.md-toc-h1 .md-toc-inner {
    margin-left: 0px;
    font-weight: 700;
}

.md-toc-h2 .md-toc-inner {
    margin-left: 2em;
}

.md-toc-h3 .md-toc-inner {
    margin-left: 4em;
}

.md-toc-h4 .md-toc-inner {
    margin-left: 6em;
}

.md-toc-h5 .md-toc-inner {
    margin-left: 8em;
}

.md-toc-h6 .md-toc-inner {
    margin-left: 10em;
}

@media screen and (max-width: 48em) {
    .md-toc-h3 .md-toc-inner {
        margin-left: 3.5em;
    }

    .md-toc-h4 .md-toc-inner {
        margin-left: 5em;
    }

    .md-toc-h5 .md-toc-inner {
        margin-left: 6.5em;
    }

    .md-toc-h6 .md-toc-inner {
        margin-left: 8em;
    }
}
```

```
a.md-toc-inner {
    font-size: inherit;
    font-style: inherit;
    font-weight: inherit;
    line-height: inherit;
}

.footnote-line a:not(.reversefootnote) {
    color: inherit;
}

.md-attr {
    display: none;
}

.md-fn-count::after {
    content: ".";
}

code,
pre,
samp,
tt {
    font-family: var(--monospace);
}

kbd {
    margin: 0px 0.1em;
    padding: 0.1em 0.6em;
    font-size: 0.8em;
    color: rgb(36, 39, 41);
    background: rgb(255, 255, 255);
    border: 1px solid rgb(173, 179, 185);
    border-radius: 3px;
    box-shadow: rgba(12, 13, 14, 0.2) 0px 1px 0px, rgb(255, 255, 255)
0px 0px 0px 2px inset;
    white-space: nowrap;
    vertical-align: middle;
}

.md-comment {
    color: rgb(162, 127, 3);
    opacity: 0.6;
    font-family: var(--monospace);
}

code {
    text-align: left;
    vertical-align: initial;
}
```

```
}

a.md-print-anchor {
  white-space: pre !important;
  border-width: initial !important;
  border-style: none !important;
  border-color: initial !important;
  display: inline-block !important;
  position: absolute !important;
  width: 1px !important;
  right: 0px !important;
  outline: 0px !important;
  background: 0px 0px !important;
  text-decoration: initial !important;
  text-shadow: initial !important;
}

.os-windows.monocolor-emoji .md-emoji {
  font-family: "Segoe UI Symbol", sans-serif;
}

.md-diagram-panel>svg {
  max-width: 100%;
}

[lang="flow"] svg,
[lang="mermaid"] svg {
  max-width: 100%;
  height: auto;
}

[lang="mermaid"] .node text {
  font-size: 1rem;
}

table tr th {
  border-bottom: 0px;
}

video {
  max-width: 100%;
  display: block;
  margin: 0px auto;
}

iframe {
  max-width: 100%;
  width: 100%;
  border: none;
}
```



```

}

.highlight td,
.highlight tr {
    border: 0px;
}

mark {
    background: rgb(255, 255, 0);
    color: rgb(0, 0, 0);
}

.md-html-inline .md-plain,
.md-html-inline strong,
mark .md-inline-math,
mark strong {
    color: inherit;
}

.md-expand mark .md-meta {
    opacity: 0.3 !important;
}

mark .md-meta {
    color: rgb(0, 0, 0);
}

@media print {

    .typora-export h1,
    .typora-export h2,
    .typora-export h3,
    .typora-export h4,
    .typora-export h5,
    .typora-export h6 {
        break-inside: avoid;
    }
}

.md-diagram-panel .messageText {
    stroke: none !important;
}

.md-diagram-panel .start-state {
    fill: var(--node-fill);
}

.md-diagram-panel .edgeLabel rect {
    opacity: 1 !important;
}

```

```
}

.md-fences.md-fences-math {
    font-size: 1em;
}

.md-fences-advanced:not(.md-focus) {
    padding: 0px;
    white-space: nowrap;
    border: 0px;
}

.md-fences-advanced:not(.md-focus) {
    background: inherit;
}

.typora-export-show-outline .typora-export-content {
    max-width: 1440px;
    margin: auto;
    display: flex;
    flex-direction: row;
}

.typora-export-sidebar {
    width: 300px;
    font-size: 0.8rem;
    margin-top: 80px;
    margin-right: 18px;
}

.typora-export-show-outline #write {
    --webkit-flex: 2;
    flex: 2 1 0%;
}

.typora-export-sidebar .outline-content {
    position: fixed;
    top: 0px;
    max-height: 100%;
    overflow: hidden auto;
    padding-bottom: 30px;
    padding-top: 60px;
    width: 300px;
}

@media screen and (max-width: 1024px) {

    .typora-export-sidebar,
    .typora-export-sidebar .outline-content {
```

```
        width: 240px;
    }
}

@media screen and (max-width: 800px) {
    .typora-export-sidebar {
        display: none;
    }
}

.outline-content li,
.outline-content ul {
    margin-left: 0px;
    margin-right: 0px;
    padding-left: 0px;
    padding-right: 0px;
    list-style: none;
}

.outline-content ul {
    margin-top: 0px;
    margin-bottom: 0px;
}

.outline-content strong {
    font-weight: 400;
}

.outline-expander {
    width: 1rem;
    height: 1.42857rem;
    position: relative;
    display: table-cell;
    vertical-align: middle;
    cursor: pointer;
    padding-left: 4px;
}

.outline-expander::before {
    content: " ";
    position: relative;
    font-family: Ionicons;
    display: inline-block;
    font-size: 8px;
    vertical-align: middle;
}

.outline-item {
    padding-top: 3px;
}
```

```
        padding-bottom: 3px;
        cursor: pointer;
    }

    .outline-expander:hover::before {
        content: " ";
    }

    .outline-h1>.outline-item {
        padding-left: 0px;
    }

    .outline-h2>.outline-item {
        padding-left: 1em;
    }

    .outline-h3>.outline-item {
        padding-left: 2em;
    }

    .outline-h4>.outline-item {
        padding-left: 3em;
    }

    .outline-h5>.outline-item {
        padding-left: 4em;
    }

    .outline-h6>.outline-item {
        padding-left: 5em;
    }

    .outline-label {
        cursor: pointer;
        display: table-cell;
        vertical-align: middle;
        text-decoration: none;
        color: inherit;
    }

    .outline-label:hover {
        text-decoration: underline;
    }

    .outline-item:hover {
        border-color: rgb(245, 245, 245);
        background-color: var(--item-hover-bg-color);
    }
```

```
.outline-item:hover {
    margin-left: -28px;
    margin-right: -28px;
    border-left: 28px solid transparent;
    border-right: 28px solid transparent;
}

.outline-item-single .outline-expander::before,
.outline-item-single .outline-expander:hover::before {
    display: none;
}

.outline-item-open>.outline-item>.outline-expander::before {
    content: " ";
}

.outline-children {
    display: none;
}

.info-panel-tab-wrapper {
    display: none;
}

.outline-item-open>.outline-children {
    display: block;
}

.typora-export .outline-item {
    padding-top: 1px;
    padding-bottom: 1px;
}

.typora-export .outline-item:hover {
    margin-right: -8px;
    border-right: 8px solid transparent;
}

.typora-export .outline-expander::before {
    content: "+";
    font-family: inherit;
    top: -1px;
}

.typora-export .outline-expander:hover::before,
.typora-export .outline-item-open>.outline-item>.outline-
expander::before {
    content: "-";
}
```

```

.typora-export-collapse-outline .outline-children {
    display: none;
}

.typora-export-collapse-outline .outline-item-open>.outline-children,
.typora-export-no-collapse-outline .outline-children {
    display: block;
}

.typora-export-no-collapse-outline .outline-expander::before {
    content: "" !important;
}

label {
    .typora-export-show-outline .outline-item-active>.outline-item .outline-
        font-weight: 700;
}

.md-inline-math-container mjx-container {
    zoom: 0.95;
}

:root {
    --side-bar-bg-color: #fafafa;
    --control-text-color: #777;
}

@include-when-export
url(https://fonts.loli.net/css?family=Open+Sans:400italic,700italic,700,400&subset=la
tin,latin-ext);

/* open-sans-regular - latin-ext_latin */
/* open-sans-italic - latin-ext_latin */
/* open-sans-700 - latin-ext_latin */
/* open-sans-700italic - latin-ext_latin */
html {
    font-size: 16px;
    -webkit-font-smoothing: antialiased;
}

body {
    font-family: "Open Sans", "Clear Sans", "Helvetica Neue",
Helvetica, Arial, 'Segoe UI Emoji', sans-serif;
    color: rgb(51, 51, 51);
    line-height: 1.6;
}

```

```
#write {
    max-width: 860px;
    margin: 0 auto;
    padding: 30px;
    padding-bottom: 100px;
}

@media only screen and (min-width: 1400px) {
    #write {
        max-width: 1024px;
    }
}

@media only screen and (min-width: 1800px) {
    #write {
        max-width: 1200px;
    }
}

#write>ul:first-child,
#write>ol:first-child {
    margin-top: 30px;
}

a {
    color: #4183C4;
}

h1,
h2,
h3,
h4,
h5,
h6 {
    position: relative;
    margin-top: 1rem;
    margin-bottom: 1rem;
    font-weight: bold;
    line-height: 1.4;
    cursor: text;
}

h1:hover a.anchor,
h2:hover a.anchor,
h3:hover a.anchor,
h4:hover a.anchor,
h5:hover a.anchor,
h6:hover a.anchor {
    text-decoration: none;
}
```

```
}

h1 tt,
h1 code {
    font-size: inherit;
}

h2 tt,
h2 code {
    font-size: inherit;
}

h3 tt,
h3 code {
    font-size: inherit;
}

h4 tt,
h4 code {
    font-size: inherit;
}

h5 tt,
h5 code {
    font-size: inherit;
}

h6 tt,
h6 code {
    font-size: inherit;
}

h1 {
    font-size: 2.25em;
    line-height: 1.2;
    border-bottom: 1px solid #eee;
}

h2 {
    font-size: 1.75em;
    line-height: 1.225;
    border-bottom: 1px solid #eee;
}

/*@media print {
.typora-export h1,
.typora-export h2 {
    border-bottom: none;
    padding-bottom: initial;
}
```



```

}

.typora-export h1::after,
.typora-export h2::after {
  content: "";
  display: block;
  height: 100px;
  margin-top: -96px;
  border-top: 1px solid #eee;
}
}*/

h3 {
  font-size: 1.5em;
  line-height: 1.43;
}

h4 {
  font-size: 1.25em;
}

h5 {
  font-size: 1em;
}

h6 {
  font-size: 1em;
  color: #777;
}

p,
blockquote,
ul,
ol,
dl,
table {
  margin: 0.8em 0;
}

li>ol,
li>ul {
  margin: 0 0;
}

hr {
  height: 2px;
  padding: 0;
  margin: 16px 0;
  background-color: #e7e7e7;
}

```

```
        border: 0 none;
        overflow: hidden;
        box-sizing: content-box;
    }

    li p.first {
        display: inline-block;
    }

    ul,
    ol {
        padding-left: 30px;
    }

    ul:first-child,
    ol:first-child {
        margin-top: 0;
    }

    ul:last-child,
    ol:last-child {
        margin-bottom: 0;
    }

    blockquote {
        border-left: 4px solid #dfe2e5;
        padding: 0 15px;
        color: #777777;
    }

    blockquote blockquote {
        padding-right: 0;
    }

    table {
        padding: 0;
        word-break: initial;
    }

    table tr {
        border: 1px solid #dfe2e5;
        margin: 0;
        padding: 0;
    }

    table tr:nth-child(2n),
    table thead {
        background-color: #f8f8f8;
    }
```

```
table th {
    font-weight: bold;
    border: 1px solid #dfe2e5;
    border-bottom: 0;
    margin: 0;
    padding: 6px 13px;
}

table td {
    border: 1px solid #dfe2e5;
    margin: 0;
    padding: 6px 13px;
}

table th:first-child,
table td:first-child {
    margin-top: 0;
}

table th:last-child,
table td:last-child {
    margin-bottom: 0;
}

.CodeMirror-lines {
    padding-left: 4px;
}

.code-tooltip {
    box-shadow: 0 1px 1px 0 rgba(0, 28, 36, .3);
    border-top: 1px solid #eef2f2;
}

.md-fences,
code,
tt {
    border: 1px solid #e7eae5;
    background-color: #f8f8f8;
    border-radius: 3px;
    padding: 0;
    padding: 2px 4px 0px 4px;
    font-size: 0.9em;
}

code {
    background-color: #f3f4f4;
    padding: 0 2px 0 2px;
}
```

```
.md-fences {
    margin-bottom: 15px;
    margin-top: 15px;
    padding-top: 8px;
    padding-bottom: 6px;
}

.md-task-list-item>input {
    margin-left: -1.3em;
}

@media print {
    html {
        font-size: 13px;
    }

    table,
    pre {
        page-break-inside: avoid;
    }

    pre {
        word-wrap: break-word;
    }
}

.md-fences {
    background-color: #f8f8f8;
}

#write pre.md-meta-block {
    padding: 1rem;
    font-size: 85%;
    line-height: 1.45;
    background-color: #f7f7f7;
    border: 0;
    border-radius: 3px;
    color: #777777;
    margin-top: 0 !important;
}

.mathjax-block>.code-tooltip {
    bottom: .375rem;
}

.md-mathjax-midline {
    background: #fafafa;
```

```
}

#writer>h3.md-focus:before {
  left: -1.5625rem;
  top: .375rem;
}

#writer>h4.md-focus:before {
  left: -1.5625rem;
  top: .285714286rem;
}

#writer>h5.md-focus:before {
  left: -1.5625rem;
  top: .285714286rem;
}

#writer>h6.md-focus:before {
  left: -1.5625rem;
  top: .285714286rem;
}

.md-image>.md-meta {
  /*border: 1px solid #ddd;*/
  border-radius: 3px;
  padding: 2px 0px 0px 4px;
  font-size: 0.9em;
  color: inherit;
}

.md-tag {
  color: #a7a7a7;
  opacity: 1;
}

.md-toc {
  margin-top: 20px;
  padding-bottom: 20px;
}

.sidebar-tabs {
  border-bottom: none;
}

#typora-quick-open {
  border: 1px solid #ddd;
  background-color: #f8f8f8;
}
```

```
#typora-quick-open-item {
    background-color: #FAFAFA;
    border-color: #FEFEFE #e5e5e5 #e5e5e5 #eee;
    border-style: solid;
    border-width: 1px;
}

/** focus mode */
.on-focus-mode blockquote {
    border-left-color: rgba(85, 85, 85, 0.12);
}

header,
.context-menu,
.megamenu-content,
footer {
    font-family: "Segoe UI", "Arial", sans-serif;
}

.file-node-content:hover .file-node-icon,
.file-node-content:hover .file-node-open-state {
    visibility: visible;
}

.mac-seamless-mode #typora-sidebar {
    background-color: #fafafa;
    background-color: var(--side-bar-bg-color);
}

.md-lang {
    color: #b4654d;
}

/* .html-for-mac {
    --item-hover-bg-color: #E6F0FE;
}*/

#md-notification .btn {
    border: 0;
}

.dropdown-menu .divider {
    border-color: #e5e5e5;
    opacity: 0.4;
}

.ty-preferences .window-content {
    background-color: #fafafa;
}
```


```

        .ty-preferences .nav-group-item.active {
            color: white;
            background: #999;
        }

        .menu-item-container a.menu-style-btn {
            background-color: #f5f8fa;
            background-image: linear-gradient(180deg, hsla(0, 0%, 100%, 0.8),
hsla(0, 0%, 100%, 0));
        }
    </style>
    <title>안내사항</title>
</head>

<body class='os-windows'>
    <div class='typora-export-content' layout:fragment="content">
        <div id='write' class=''>
            <p><span> </span></p>
            <h2 id='공모주-청약이란'><span>공모주 청약이란?</span></h2>
            <p><span>일단 공모란 일반인(50명 이상)에게 주식 등의 유가증권을
신규로 발행하거나, 이미 발행된 주식등 유가증권을 매각하는 것을 말합니다. 공모주는
공모 대상의 주식을, 공모주 청약은
        공모주를 사겠다고 신청하는 것을 말합니다.</span></p>
            <p><span>기 상장된 기업도 공모 방식의 유상증자를 통해 자금조달을
할 수 있지만, 일반적으로 공모주 청약할 때의 공모주라고 하면 코스피나 코스닥 시장에
신규 상장(=기업공개,
        IPO(Initial Public Offering))을 하는 기업의 주식을
말합니다.</span></p>
            <p><span> </span><br></p>
            <h2 id='공모주-청약-방법'><span>공모주 청약 방법</span></h2>
            <p><span>공모주 청약 방법은 (1) 영업점에 직접 가는 방법 (2)
전화로 하는 방법 (3) HTS, MTS 등으로 하는 방법이 있습니다. 일단 영업점에 직접 가는
것은 번거롭기도 하고
        평일에는 직장인이면 갈 수가 없는 단점이 있습니다.
전화로 하는 방법은 편리하긴 하지만 청약수수료가 발생합니다. 이번 게시물에서는 HTS로
청약하는 방법에 대해
        알아보겠습니다.</span></p>
            <p><span> </span><br></p>
            <h3 id='1-공모주-청약-신청할-증권사-선정-계좌-개설'><span>1.
공모주 청약 신청할 증권사 선정 (+계좌 개설)</span></h3>
            <p><span>주식배정물량과 청약대출여부 등을 종합해 공모주 청약을
신청할 증권사를 선정하고 계좌가 없는 경우 계좌를 개설합니다. 이렇게 하는 이유는
증권사별로 배정받는 주식 물량과 경쟁률이
        다르고, 증권사별 일반고객, 우대고객 청약한도가 각각
다르기 때문에 전략적으로 증권사를 선택해야 합니다. 한정된 증거금으로 한주라도 더
배정받기 위해서는 증권사를 잘 선정하는것이
        중요합니다.</span></p>
            <p>&nbsp;</p>

```



카카오게임즈의 공모정보
(자료=IP0stock)

공모정보를 보면 일반청약자에게 배정된 주식의 수를 증권회사별로 확인할 수 있고, 참고사항에서 일반고객이나 우대고객, 또는 온라인전용고객에게 청약 한도의 몇 퍼센트까지 배정하는지 확인할 수 있습니다. IP0stock이나 38커뮤니케이션 등의 사이트에서 공모정보를 자세히 확인할 수 있습니다.

2. 청약증거금 입금

증권사 계좌에 청약증거금을 입금합니다. 공모주 청약은 투자금이 많을수록 많이 배정받는 구조인데요, 예를 들어 청약 증거금률이 100%이고 경쟁률이 100:1이면 100만원을 청약증거금으로 넣었을 때 1만원어치의 주식을 배정받습니다. 200만원을 넣으면 2만원어치 주식을 배정받는 셈입니다.

3. HTS로 신청

영웅문의 공모주 청약 메뉴

HTS에서 청약 메뉴를 찾아서 진행하면 됩니다. HTS마다 다르겠지만 청약 과정은 정말 쉽습니다. 위 사진은 키움증권 영웅문 HTS에서 "[0813] 청약(공모주/실권주) - 청약입력/취소" 창의 모습입니다.

참고로 청약 기간중에 취소할 수 있습니다. 취소 후 재청약도 가능합니다.

4. 공모주 수령

청약 종료 후 2영업일이 지나면 배정된 주식을 주식계좌로 수령하게 되고, 주식 금액을 제외한 나머지 증거금은 환불됩니다. 이를 각각 납입일, 환불일이라고 하는데 보통 같습니다.

이렇게 공모주 청약을 진행하는 방법을 알아봤는데 공모주를 직접 청약하는 것이 아니라 공모주 펀드를 통해 간접 투자하는 방법도 있는 점 참고해주세요.

공모주-청약일정-확인-방법

공모주 청약일정 확인 방법

2020년 9월

공모청약일정">2020년 9월 공모청약일정 (자료=IPOstock)</p>
 <p> </p>
 <p>공모청약 일정은 여러곳에서 확인할 수 있는데 제 생각에
 가장 편리한 곳은 바로 IPOstock(www.ipostock.co.kr)입
 니다. IPO공모 - 공모청약일정에서 공모
 청약일정을 한눈에 확인할 수 있습니다. 개별 종목을
 클릭하면 상세한 공모 정보를 확인할 수 있습니다.</p>
 <p>
</p>
 <h3 id='공모주를-고르는-방법'>공모주를 고르는
 방법</h3>
 <p> </p>
 <p>카카오게임즈의 의무보유 확약비율
 (자료=38커뮤니케이션)
 </p>
 <p> </p>
 <p>공모주 청약시 중요한 요소 중 하나는 기관이 언제 공모주를
 팔 수 있는지 확인하는 것입니다. 기관 투자자는 공모주를 많이 배정받는 조건으로 상장 후
 일정기간 공모주를 의무적으로
 보유해야 하는데, 의무보유 기간이 끝나면 시장에
 물량이 쏟아져 주가가 떨어지는 경우가 많습니다. 따라서 기관 의무보유 확약비율을 보고
 기간별 2주, 1개월, 3개월 확약 비율을
 확인해 어느 시점에 어느 정도 물량이 나올지 가능해
 공모주 투자를 해야 합니다.</p>
 <p>
</p>
 <p> </p>
 <h2 id='주의사항'>주의사항</h2>
 <p>공모주 투자가 무조건 대박을 보장해주는 것은 아니네요,
 증시가 약세를 보일 때는 상장 후 주가가 공모가보다 낮아지는 경우가 종종 발생하기도
 합니다. 회사의 적정 값어치를 계산해
 현명한 투자를 하는 것이 중요합니다.</p>
 <p>공모주는 수령한 직후 팔 수도 있고, 나중에 팔 수도
 있는데요 보통 공모주는 기대심리로 인해 공모 초기에 반짝 상승하고 쭉 떨어지는 경우가
 많습니다. 매수 못지 않게 매도 타이밍
 또한 중요합니다.</p>
 <p>
</p>
 </div>
 </div>
 </body>
 </html>
 /ipo/ipolist.html
 <!DOCTYPE html>
 <html lang="ko"
 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="layout/default_layout"
>
<head>
    <meta charset="UTF-8">
    <title>공모주 목록</title>
    <!--<link rel="stylesheet" th:href="@{/css/bootstrap.min.css}" />-->
    <link rel="stylesheet" href="https://unpkg.com/bootstrap-
table@1.19.0/dist/bootstrap-table.min.css">
    <link href="https://unpkg.com/bootstrap-table@1.19.0/dist/extensions/page-
jump-to/bootstrap-table-page-jump-to.min.css" rel="stylesheet">
</head>
<body>
    <div class="container" layout:fragment="content">
        <br/>
        <div class="alert alert-primary" role="alert">공모주 목록
        </div>
        <table class="table table-bordered table-sm" id="table" data-
toggle="table" data-search="true"
            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-show-pagination-switch="true"
            data-pagination="true"
            data-page-size="10"
            data-page-list="[5, 10, 15, all]"
            data-show-jump-to="true"

            data-show-export="true"
            data-export-data-type="all"
            data-show-print="true"

            data-url="/ipo/ipoList.ajax" data-sort-name="ipoIndex" data-sort-
order="desc">
            <thead>
                <tr>
                    <th data-field="ipoIndex" data-sortable="true" data-
align="center" data-formatter="viewButton">순번</th>
                    <th data-field="stockName" data-sortable="true"
data-align="left">종목명</th>
                    <th data-field="underwriter" data-sortable="true"

```

```

data-align="right">대표 주간사</th>
                                <th data-field="ipoStartDate" data-sortable="true"
data-align="center">청약일자</th>
                                <th data-field="ipoPrice" data-sortable="true"
data-formatter="numberFormatter" data-align="center">확정공모가</th>
                                </tr>
                                </thead>
                                </table>
                                <a sec:authorize="hasRole('ADMIN')" href="/ipo/ipoWrite.do" class="btn
btn-warning">글쓰기</a>
                                </div>

                                <th:block layout:fragment="script">
                                <script src="https://unpkg.com/bootstrap-table@1.19.0/dist/bootstrap-
table.min.js"></script>
                                <script src="https://unpkg.com/bootstrap-table@1.19.0/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@1.19.0/dist/extensions/export/bootstrap-table-export.min.js"></script>
                                <script src="https://unpkg.com/bootstrap-
table@1.19.0/dist/extensions/print/bootstrap-table-print.min.js"></script>
                                <script>
                                $("#table").on("load-success.bs.table", function (data) {
                                    //table이 성공적으로 호출되었을때 실행됨.
                                    var data = $("#table").bootstrapTable("getData")
                                    if (data.length > 0) {
                                        paramBoardIdx = data[0].boardIdx;
                                        //alert(paramBoardIdx);
                                    }
                                });

                                function viewButton(value) {
                                    //html format을 바꿔줌. 이걸 버튼형식으로 바꿔주는것. (치환)
                                    return '<button type="button" class="btn btn-secondary btn-sm'
style="padding-top:0">' + value + '</button>'
                                };

                                function numberFormatter(value) {
                                    //매 3번째 글자마다 쉼표를 추가함 (예를들어 1000은 => 1,000)
                                    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("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 = "/ipo/" + id;
        }
    });
</script>
</th:block>
</body>

</html>

```

/ipo/ipoWrite.html

```

<!DOCTYPE html>
<html lang="ko"
    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="layout/default_layout"
>

<head>
    <meta charset="UTF-8">
    <title>신규 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>
    <div class="container" layout:fragment="content">
        <form id="frm" name="frm" method="post">
            <h1>
                <input type="text" id="stockName" name="stockName" style="border:
lightgray dotted;" placeholder="종목명" required>
            </h1>
            <hr/>

            <div class="row">
                <div class="card" style="width: 30%; margin: 1%;>
                    <div class="card-body">
                        <h5 class="card-title">공모 시작일<span
id="startDday"></span></h5>
                        <p class="card-text">
                            <input type="date" id="ipoStartDate"
name="ipoStartDate" style="background-color: rgba( 255, 255, 255, 0 ); border: 0

```

```
solid;" >
        </p>
    </div>
</div>

<div class="card" style="width: 30%; margin: 1%;">
    <div class="card-body">
        <h5 class="card-title">환불 진행일<span
id="refundDday"></span></h5>
        <p class="card-text">
            <input type="date" id="ipoRefundDate"
name="ipoRefundDate" style="background-color: rgba( 255, 255, 255, 0 ); border: 0
solid;" >
        </p>
    </div>
</div>

<div class="card" style="width: 30%; margin: 1%;">
    <div class="card-body">
        <h5 class="card-title">신규 상장일<span
id="debutDday"></span></h5>
        <p class="card-text">
            <input type="date" id="ipoDebutDate"
name="ipoDebutDate" style="background-color: rgba( 255, 255, 255, 0 ); border: 0
solid;" >
        </p>
    </div>
</div>
</div>
<br/>
<div class="row">
    <div class="col-lg-3">
        <div class="input-group mb-3">
            <span class="input-group-
text">시장구분</span>
            <input type="text" id="stockExchange"
name="stockExchange" class="form-control" placeholder="코스피, 코스닥, 코넥스...">
        </div>
        <div class="input-group mb-3">
            <span class="input-group-
text">종목코드</span>
            <input type="text" id="stockCode"
name="stockCode" class="form-control" >
        </div>
    </div>
    <div class="col-lg-3">
        <div class="input-group mb-3">
            <span class="input-group-text">확정
공모가</span>
            <input type="text" id="ipoPrice"
```

```

name="ipoPrice" class="form-control" >
    </div>
    <div class="input-group mb-3">
        <span class="input-group-text">상장일
종가</span>
        <input type="text" id="debutPrice"
name="debutPrice" class="form-control" value="0">
    </div>
</div>
<div class="col-lg-6">
    <div class="input-group mb-3">
        <span class="input-group-text">업종</span>
        <input type="text" id="sector" name="sector"
class="form-control" >
    </div>

    <div class="input-group mb-3">
        <span class="input-group-text">주간사</span>
        <input type="text" id="underwriter"
name="underwriter" class="form-control" placeholder="ㅇㅇ 금융증권">
    </div>
</div>
<div class="col-lg-6">
    <div class="input-group mb-3">
        <span class="input-group-
text">기관경쟁률</span>
        <input type="text"
id="ipoInstitutionalAcceptanceRate" name="ipoInstitutionalAcceptanceRate"
class="form-control" >
    </div>
    <div class="input-group mb-3">
        <span class="input-group-
text">청약경쟁률</span>
        <input type="text"
id="ipoRetailAcceptanceRate" name="ipoRetailAcceptanceRate" class="form-control"
value="0">
    </div>
</div>
<div class="col-lg-6">
    <div class="input-group mb-3">
        <span class="input-group-
text">의무보유확약</span>
        <input type="text" id="lockUpPercent"
name="lockUpPercent" class="form-control" >
    </div>
    <div class="input-group mb-3">
        <span class="input-group-
text">발행주식수</span>

```

```

<input type="text" id="numberOfIpoShares"
name="numberOfIpoShares" class="form-control" >
</div>
</div>
</div>

<input type="hidden" th:name="${_csrf.parameterName}"
th:value="${_csrf.token}" />
<input type="hidden" name="_method" id="method">
</form>

<a href="#this" id="list" class="btn btn-warning">취소</a>
<a sec:authorize="hasRole('ADMIN')" href="#this" id="submit" class="btn
btn-warning">작성완료</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 = "/ipo";
        });

        $("#submit").on("click", function() {
            $("#method").val("post");
            var frm=$("#frm")[0];
            frm.action = "/ipo";

            var ipoStartDate =
document.getElementById("ipoStartDate");
            var ipoRefundDate =
document.getElementById("ipoRefundDate");
            var ipoDebutDate =
document.getElementById("ipoDebutDate");
            if(ipoStartDate.value == "") {
                alert("공모 시작일을 입력해주세요.");
                return -1;
            }
            if(ipoRefundDate.value == "") {
                alert("환불 진행일을 입력해주세요.");
                return -1;
            }
            if(ipoDebutDate.value == "") {
                alert("신규 상장일을 입력해주세요.");
            }
        });
    });

```

```

        return -1;
    }
    var requireForm = document.getElementsByClassName("form-
control");

    for(var i=0; i<requireForm.length; i++) {
        if(requireForm[i].value == "") {
            alert("모든 값을 입력해주세요.");
            return -1;
        }
    }
    frm.submit();
});
});
</script>
</th:block>
</body>
</html>

```

3-5) query

Sql-ipo.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.ipo.mapper.IpoMapper">
    <select id="selectIpoList" resultType="kr.ac.inha.board.ipo.dto.IpoDto">
        <![CDATA[
            SELECT
                ipo_index,
                stock_name,
                underwriter,
                ipo_start_date,
                ipo_refund_date,
                ipo_debut_date,
                ipo_price,
                debut_price
            FROM
                ipo
            ORDER BY ipo_index DESC
        ]]>
    </select>

    <select id="selectIpoDetail" parameterType="int"
        resultType="kr.ac.inha.board.ipo.dto.IpoDto">
        <![CDATA[
            SELECT
                *

```



```

        FROM
            ipo
        WHERE
            ipo_index = #{ipoIndex}
    ]]>
</select>

<delete id="deleteIpo" parameterType="int">
    <![CDATA[
        DELETE
        FROM
            ipo
        WHERE
            ipo_index = #{ipoIndex}
    ]]>
</delete>

<update id="updateIpo"
    parameterType="kr.ac.inha.board.ipo.dto.IpoDto">
    <![CDATA[
        UPDATE
            ipo
        SET
            stock_name = #{stockName},
            stock_exchange = #{stockExchange},
            stock_code = #{stockCode},
            sector = #{sector},
            ipo_price = #{ipoPrice},
            lock_up_percent = #{lockUpPercent},
            ipo_retail_acceptance_rate = #{ipoRetailAcceptanceRate},
            ipo_institutional_acceptance_rate =
#{ipoInstitutionalAcceptanceRate},
            debut_price = #{debutPrice},
            number_of_ipo_shares = #{numberOfIpoShares},
            ipo_start_date = #{ipoStartDate},
            ipo_refund_date = #{ipoRefundDate},
            ipo_debut_date = #{ipoDebutDate},
            underwriter = #{underwriter}
        WHERE
            ipo_index = #{ipoIndex}
    ]]>
</update>

<insert id="insertIpo" parameterType="kr.ac.inha.board.ipo.dto.IpoDto"
    useGeneratedKeys="true" keyProperty="ipoIndex">
    <![CDATA[
        INSERT INTO ipo
        (
            stock_name,

```

```

        stock_exchange,
        stock_code,
        sector,
        ipo_price,
        lock_up_percent,
        ipo_retail_acceptance_rate,
        ipo_institutional_acceptance_rate,
        debut_price,
        number_of_ipo_shares,
        ipo_start_date,
        ipo_refund_date,
        ipo_debut_date,
        underwriter
    )
VALUES
(
    #{stockName},
    #{stockExchange},
    #{stockCode},
    #{sector},
    #{ipoPrice},
    #{lockUpPercent},
    #{ipoRetailAcceptanceRate},
    #{ipoInstitutionalAcceptanceRate},
    #{debutPrice},
    #{numberOfIpoShares},
    #{ipoStartDate},
    #{ipoRefundDate},
    #{ipoDebutDate},
    #{underwriter}
)
]]>
</insert>

<select id="selectSystemLog"
resultType="kr.ac.inha.board.ipo.dto.SystemLogDto">
    <![CDATA[
        SELECT
            log_index,
            type,
            target,
            result,
            log_date
        FROM
            system_log
        ORDER BY log_index DESC
    ]]>
</select>

```

```
<insert id="insertSystemLog"
parameterType="kr.ac.inha.board.ipc.dto.SystemLogDto" useGeneratedKeys="false"
keyProperty="log_index">
    <![CDATA[
        INSERT INTO system_log
        (
            type,
            target,
            result,
            log_date
        )
        VALUES
        (
            #{type},
            #{target},
            #{result},
            NOW()
        )
    ]]>
</insert>
</mapper>
```