1조 데이터 쿼리문(ANSI-SQL)

요구사항번호	B-01	작성일	2022-05-18		
요구사항명	관리자 계정	작성자	김성태		
DML					
계정으로 로그인	후 관리자 기본정보 간단하게 출력				
select					
admin.seq,					
admin.name a	admin.name as "이름",				
admin.tel as "연락처"					
from admin					
$\frac{1}{1}$ where ssn = 1	1068450;로그인 한 관리자의 주민번호 뒷자리(패스워드)				

요구사항번호 B-02	작성일	2022-05-18
요구사항명 기초정보 관리기능	작성자	김성태

```
--과정 명 관리
select * from curriculum;
insert into curriculum values (21, '이클립스 완전정복');
update curriculum set name = '오라클 완전정복' where seq = 21;
delete from curriculum where seq = 21;
--과목 명 관리
select * from subject;
insert into subject values (31, 'HTML');
update subject set subject_name = CSS where seq = 31;
delete from subject where seq = 31;
--강의실 명 관리
select * from lectureroom;
insert into lectureroom values (7, '7강의실', 25);
update lectureroom set room_name = '상담실' where seq = 7;
delete from lectureroom where seq = 7;
```

```
--교재 명 관리
select * from book;
insert into book values (41, 'HTML5 웹 프로그래밍 입문', '윤인성', '한빛아카데미', '2019-07-20');
update book set publisher = '정문출판' where seq = 41;
delete from book where seq = 41;
```

요구사항번호 B-	3-03	작성일	2022-05-18
요구사항명 교	고사계정 관리기능	작성자	김성태

--교사정보 등록

insert into teacher values (11, '홍길동', 1010101, '010-1111-1111');

insert into teaching_subject values (11, 1);

--교사정보 수정

update teacher set name = '김세종' where name = '홍길동';

--교사정보 삭제

delete from teaching_subject where teacher_seq = 11;

delete from teacher where name = '김세종';

```
--교사정보 조회
select
  t.name as "이름",
  t.ssn as "주민번호",
  t.tel as "연락처",
  s.subject_name as "강의가능 과목"
from teacher t
  inner join teaching_subject ts
     on t.seq = ts.teacher_seq
       inner join subject s
          on ts.subject_seq = s.seq
             order by t.name asc;
--교사의 강의과목에 대한 정보 조회
select
  t.name as "이름",
  ts.subject_seq as "과목번호",
  s.subject_name as "과목명",
  os.begin_date as "과목 시작",
  os.end_date as "과목 종료",
  c.name as "과정명",
  oc.begin_date as "과정 시작",
  oc.end_date as "과정 종료",
```

```
b.subject as "교재명",
  l.room_name as "강의실",
  case
     when oc.begin_date > sysdate then '강의 예정'
     when oc.end_date < sysdate then '강의 종료'
  else '강의 중'
end as "진행 상태"
from teacher t
  inner join teaching_subject ts
     on t.seq = ts.teacher_seq
        inner join subject s
           on ts.subject_seq = s.seq
              inner join open_subject os
                 on t.seq = os.teacher_seq
                    inner join open_curs oc
                      on os.open_curs_seq = oc.seq
                         inner join curriculum c
                            on oc.curs_seq = c.seq
                               inner join subject_book sb
                                  on s.seq = sb.subject_seq
```

inner join book b

on sb.book_seq = b.seq

inner join lectureroom I

on oc.room_seq = l.seq

where t.name = '풍종진';

요구사항번호	B-04	작성일	2022-05-19
요구사항명	개설과정 관리기능	작성자	임종운

DML

<>안에 CRUD 할 대상의 정보를 입력

1. 과정명 추가

INSERT INTO curriculum(seq, name) VALUES(curriculum_seq.nextval, <과정명>);

2. 과정명 및 강의실 정보 조회

SELECT * FROM curriculum; --과정명 조회 SELECT * FROM lectureroom; -- 강의실 조회

3. 과정 정보 입력 – 과정명 및 강의실명은 테이블에서 선택하여 입력

INSERT INTO open_curs(seq, curs_seq, room_seq, begin_date, end_date, current_term, student_limit, student_num)

VALUES(<과정 일련번호>, <과정명>, <강의실명>, <과정 시작일자>, <과정 종료일자>, <과정 개월입력>, <학생 정원>, <학생 수>);

4. 개설 과정 정보 출력시 개설 과정명, 개설 과정기간, 강의실명, 개설 과목 등록 여부, 교육생 등록 인원 출력

```
SELECT
  oc.seq AS 개설과정번호,
  cc.name AS 과정명,
  oc.begin_date AS 시작일자,
  oc.end_date AS 종료일자,
  I.room name AS 강의실명,
  oc.student num AS 교육생등록인원, --이게 사실 필요가 없는 컬럼인것같음
  p.등록인원
FROM open curs oc
  INNER JOIN curriculum cc ON oc.curs seg = cc.seg
  INNER JOIN lectureroom | ON oc.room_seq = |.seq
  INNER JOIN (SELECT
    open curs seq, count(member seq) AS 등록인원
  FROM enrollment
  GROUP BY open_curs_seq) p ON oc.seq = p.open_curs_seq
ORDER BY oc.seq;
```

5. 특정 개설 과정 선택시 개설 과정에 등록된 개설 과목 정보 확인

SELECT

s.subject_name, os.begin_date, os.end_date, b.subject ,t.name
FROM (SELECT seq FROM open_curs oc WHERE seq = <확인할 개설 과정번호>) sr
INNER JOIN open_subject os ON sr.seq = os.open_curs_seq
INNER JOIN subject s ON os.subject_seq = s.seq

```
INNER JOIN subject_book sb ON s.seq = sb.subject_seq
  INNER JOIN book b ON sb.book_seq = b.seq
  INNER JOIN teacher t ON os.teacher_seq = t.seq;
6. 과정에 등록된 교육생 정보 확인
SELECT
  m.name, m.ssn, m.tel, e.enroll_date, s.drop_out
FROM (SELECT *
  FROM open_curs oc
  WHERE seq = <과정번호>) rs
  INNER JOIN enrollment e ON rs.seq = e.open_curs_seq
  INNER JOIN member m ON e.member seg = m.seg
  INNER JOIN student s ON m.seq = s.member_seq;
7. 특정 개설과정 수료시, 교육생 전체에 대해서 수료 날짜를 지정할 수 있어야 한다. 단 중도 탈락자는 제외한다.
UPDATE student s SET s.drop_out = '수료', s.drop_out_date = <수료 날짜 지정>
WHERE
  EXISTS(
     SELECT *
    FROM member m
    WHERE s.member_seq = m.seq
    AND s.open_curs_seq = 12
                             --수료 완료 과정
  AND
  (s.drop_out IS NULL
  OR
```

s.drop_out<>'중도탈락');

8. 개설 과정 삭제

CASCADE

요구사항번호	B-05	작성일	2022-05-19
요구사항명	개설과목 관리기능	작성자	임종운

DML

<>안에 CRUD 할 대상의 정보를 입력

1. 특정 개설 과정 선택 시 개설 과목 정보 출력

SELECT

os.seq,

c.name AS 개설과정,

oc.begin_date||'~'||oc.end_date AS 과정진행일자,

s.subject_name AS 과목명,

os.begin_date||'~'||os.end_date AS 과목기간,

b.subject AS 교재명,

t.name AS 담당교사

FROM open_curs oc

INNER JOIN curriculum c ON oc.curs_seq = c.seq

INNER JOIN open_subject os ON oc.seq = os.open_curs_seq

INNER JOIN teacher t ON os.teacher_seq = t.seq

INNER JOIN subject s ON os.subject_seq = s.seq

INNER JOIN subject_book sb ON s.seq = sb.subject_seq
INNER JOIN book b ON sb.book_seq = b.seq
WHERE oc.seq = <개설과정 일련번호>; --특정 개설과정 선택

2. 개설과목 입력

2.1 과목명 목록

SELECT * FROM subject;

2.2 과목 강의가능 강사 검색

 ${\sf SELECT\ t.seq,\ t.name,\ t.ssn,\ t.tel,\ s.subject_name}$

FROM teacher t

INNER JOIN teaching_subject ts ON t.seq = ts.teacher_seq

INNER JOIN subject s ON s.seq = ts.subject_seq

WHERE s.subject_name LIKE '%<과목명 입력>%';

2.3 개설과목 입력

INSERT INTO open_subject(seq, subject_seq, teacher_seq, open_curs_seq, begin_date, end_date)

VALUES(open_subject_seq.nextval, <과목 일련번호>, <교수 일련번호>, <과정 일련번호>, <과정 시작기간>, <과정종료기간>);

3. 개설과목 수정

UPDATE open_subject SET <수정할 대상> WHERE seq = <수정할 과목번호>;

4. 개설과목 삭제

CASCADE

요구사항번호	B-06	작성일	2022-05-19
요구사항명	교육생 관리 기능	작성자	임종운

<>안에 CRUD 할 대상의 정보를 입력

1. 교육생 정보 등록

INSERT INTO member(seq, name, ssn, tel) VALUES(member_seq.nextVal, <교육생이름>, <교육생주민번호뒷자리>, <교육생전화번호>);

2. 교육생 정보 출력

SELECT

m.seq, m.name, m.ssn, m.tel, s.regdate ,rs.수강신청횟수

FROM student s

INNER JOIN member m ON s.member_seq = m.seq

INNER JOIN (SELECT

en.member_seq,

count(en.seg) AS 수강신청횟수

FROM enrollment en

INNER JOIN member m ON en.member_seq = m.seq

GROUP BY en.member_seq) rs ON rs.member_seq = m.seq

WHERE m.name LIKE('%%'); --교육생 검색기능 -> 이름 아직 추가는 미정

3. 특정 교육생 선택 시 교육생이 신청한 과정명, 과정기간, 강의실, 수료여부 및 날짜 출력

```
SELECT
  cc.name AS 과정명,
  oc.begin_date||'~'||oc.end_date AS 과정기간,
  Ir.room_name AS 강의실,
  CASE
     WHEN
       s.drop_out IS NOT NULL
     THEN s.drop_out
     WHEN
       s.drop_out IS NULL AND
       TO_DATE(s.regdate, 'yyyy-mm-dd')
       BETWEEN TO_DATE(oc.begin_date, 'yyyy-mm-dd') AND TO_DATE(oc.end_date, 'yyyy-mm-dd')
     THEN '수강 중'
     WHEN
       s.drop_out IS NULL AND
       TO_DATE(s.regdate, 'yyyy-mm-dd') < TO_DATE(oc.begin_date, 'yyyy-mm-dd')
     THEN '수강 예정'
  END AS 수강상태,
  CASE
     WHEN
       s.drop_out_date IS NOT NULL
     THEN TO_CHAR(s.drop_out_date)
     WHEN
       s.drop_out_date IS NULL
     THEN '미등록'
  END AS 종료날짜
FROM student s
```

```
INNER JOIN open_curs oc ON s.open_curs_seq = oc.seq
INNER JOIN lectureroom lr ON oc.room_seq = lr.seq
INNER JOIN curriculum cc ON oc.curs_seq = cc.seq
WHERE s.member_seq = <교육생일련번호>;
```

4. 교육생 수료정보 수정

UPDATE student SET drop_out = **<변경할 상태>**, drop_out_date = **<상태를 변경한날짜>**WHERE seq = (SELECT m.seq FROM member m WHERE m.seq = **<수정할 교육생 일련번호>)**;

5. 강의 종료된 과정 목록 -> 선택과정의 교육생 정보 확인(취업 현황)

5.1 강의 종료 과정목록

SELECT

oc.seq, c.name

FROM open_curs oc

INNER JOIN curriculum c ON oc.curs_seq = c.seq

WHERE end_date < sysdate;

5.2 선택 과정 교육생 정보확인

SELECT

m.name, m.tel, jc.company, jc.hire_date

FROM student s

INNER JOIN job_current jc ON s.seq = jc.student_seq

INNER JOIN member m ON s.member_seq = m.seq

WHERE open_curs_seq = <**과정목록 일련번호>**;

6. 교육생 정보 삭제

CASCADE			

요구사항번호	B-07	작성일	2022-05-18
요구사항명	시험 관리 및 성적 조회 기능	작성자	강지윤

▶ where 절 <> 위치에는 <>안에 있는 내용에 해당하는 데이터 입력

-1.특정 개설 과정을 선택하면 개설 과목 정보 출력 (개설 과목명, 과목시작일, 과목종료일, 개설과정명, 강의실명, 교사명, 교재명)

--where 절에서 원하는 개설과정명을 입력하면 됨.

select

distinct subject_name as 개설과목, open_subject.begin_date as 시작일, open_subject.end_date as 종료일, curriculum.name as 개설과정명, lectureroom.room_name as 강의실명, teacher.name as 교사명, book.subject as 교재명

from open_curs inner join open_subject on open_subject.open_curs_seq = open_curs.seq inner join curriculum on open_curs.curs_seq = curriculum.seq inner join subject on subject.seq = open_subject.subject_seq inner join lectureroom on open_curs.room_seq = lectureroom.seq inner join teacher on open_subject.teacher_seq = teacher.seq inner join subject_book on subject_book.subject_seq = subject.seq inner join book on subject_book.book_seq = book.seq where curriculum.name = <개설과정명>

—2.개설 과목별(수강종료, 수강중인 개설과목만)로 시험 문제 파일 등록 여부(필기,실기), 성적 등록 여부(필기,실기,출결)확인 --where 절에서 원하는 개설과목명을 입력하면 됨.

select

order by curriculum.name;

distinct subject.subject_name as 과목명,
open_subject.seq as 개설과목번호,
open_subject.subject_seq as 과목번호,
open_curs.seq as 개설과정번호,
curriculum.name as 개설과정명,
(case when r.written_test_question = '시험문제등록안함' then 'N' else 'Y' end) as "필기시험문제등록여부",
(case when s.skill_test_question = '시험문제등록안함' then 'N' else 'Y' end) as "실기시험문제등록여부",
(case when subject_score.written_score is not null then 'Y' else 'N' end) as "필기성적등록여부",
(case when subject_score.skill_score is not null then 'Y' else 'N' end) as "실기성적등록여부",
(case when subject_score.skill_score is not null then 'Y' else 'N' end) as "출결성적등록여부",

```
from open_subject
  inner join subject_score on subject_score.open_subject_seq = open_subject.seq
  inner join subject on subject.seq = open_subject.subject_seq
  inner join open curs on open curs.seg = open subject.open curs seg
  inner join curriculum on curriculum.seg = open curs.curs seg
  inner join written_test on written_test.open_subject_seq = open_subject.seq
  inner join skill_test on skill_test.open_subject_seq = open_subject.seq
  inner join written test guestion r on r.written test seg = written test.seg
  inner join skill test guestion s on s.skill test seg = skill test.seg
  where subject.subject_name = <개설과목명>
  order by 개설과정번호;
--3. 개설 과목별 성적 출력시 1)개설과목별정보 + 2)개설과목별 수강생의 성적정보 출력
--where 절에 원하는 개설과목명을 입력
--너무 길어져서 2 개로 나눔.
  --1)개설 과목별 정보 출력(개설 과정명, 과목시작일, 과목종료일, 과정번호, 과정명, 과정기간, 강의실명, 교사명, 교재명)
  select
    distinct subject name as 과목명,
    open_subject.begin_date as 과목시작일,
    open_subject.end_date as 과목종료일,
    open_curs.seg as 과정번호,
    curriculum.name as 과정명,
```

open_curs.current_term || '개월' as 과정기간,

lectureroom.room_name as 강의실명,

teacher.name as 교사명,

```
book.subject as 교재명
from open_curs
  inner join open_subject on open_subject.open_curs_seq = open_curs.seq
  inner join curriculum on open_curs.curs_seq = curriculum.seq
  inner join subject on subject.seg = open subject.subject seg
  inner join lectureroom on open_curs.room_seq = lectureroom.seq
  inner join teacher on open_subject.teacher_seq = teacher.seq
  inner join subject_book on subject_book.subject_seq = subject.seq
  inner join book on subject_book.book_seq = book.seq
  where subject_name = <개설과목명>
  order by 과정번호;
--2)개설 과목별 수강생의 성적 정보(교육생 이름, 주민번호 뒷자리, 필기점수, 실기점수,출결점수)
select
     s.seg as "교육생 번호",
     m.name as "교육생 이름",
     m.ssn as "주민번호 뒷자리",
     subject.subject_name as "개설과목명",
     ss.written_score as 필기점수,
     ss.skill_score as 실기점수,
     ss.attendance_score as 출결점수
from student s
     inner join member m on m.seq = s.member_seq
     inner join subject_score ss on ss.student_seq = s.seq
     inner join open subject os on os.seg = ss.open subject seg
     inner join subject on subject.seg = os.subject seg
```

where subject.subject_name = <개설과목명>;

--4.교육생 개인별 출력시 교육생정보+교육생이 수강한 모든 개설과목에 대한 성적 정보

- --where 절에 원하는 교육생 이름을 입력
- --(교육생 이름, 주민번호 뒷자리, 개설과정명, 개설과정시작, 개설과정종료, 강의실, 개설 과목명, 교사명, 개설과목시작, 개설과목종료날짜, 필기, 실기, 출결)

select

```
distinct subject.subject_name as "개설과목명",
     s.seg as "교육생 번호",
     m.name as "교육생 이름",
     m.ssn as "주민번호 뒷자리",
     curriculum.name as 과정명,
      open_curs.begin_date as "과정시작날짜",
      open curs.end date as "과정종료날짜",
     lectureroom.room name as 강의실명,
     teacher.name as 교사명.
     os.begin_date as "과목시작날짜",
     os.end date as "과목종료날짜",
     ss.written score as 필기점수,
     ss.skill_score as 실기점수,
     ss.attendance_score as 출결점수
from student s
     inner join member m on m.seq = s.member_seq
     inner join subject_score ss on ss.student_seq = s.seq
```

inner join open_subject os on os.seq = ss.open_subject_seq

inner join subject on subject.seq = os.subject_seq inner join open_curs on open_curs.seq = os.open_curs_seq inner join curriculum on open_curs.curs_seq = curriculum.seq inner join lectureroom on open_curs.room_seq = lectureroom.seq inner join teacher on os.teacher_seq = teacher.seq inner join subject_book on subject_book.subject_seq = subject.seq inner join book on subject_book.book_seq = book.seq where m.name = <교육생 이름> order by "교육생 번호";

요구사항번호	B-08	작성일	2022-05-18	
요구사항명	출결 관리 및 출결 조회	작성자	고민지	
DMI				

DML

1. 전체 교육생의 일자별 출결상황 조회

create or replace view attendance_info as select a.student_seq as "학생번호", a.seq as "출결번호",

```
a.attendance_date as "날짜",
   case
     when min(d.checkin) is not null then '출석'
     when to_char(a.attendance_date, 'd') = 7 or to_char(a.attendance_date, 'd') = 1 then '(주말)'
     when (select sick or etc from sick or etc where attendance seg = a.seg) = '병가' then '병가'
     when (select sick_or_etc from sick_or_etc where attendance_seq = a.seq) = '7|E|' then '7|E|'
    when (select count(*) from holiday where holiday_date = a.attendance_date) > 0 then '(공휴일)'
     else '결석'
  end as "출석",
   case
     when to_date(min(d.checkin), 'hh24:mi') >= to_date('09:10', 'hh24:mi') then '지각'
     else '.'
  end as "지각",
   case
     when to_date(max(d.checkout), 'hh24:mi') < to_date('17:50', 'hh24:mi') then '조퇴'
      else '.'
  end as "조퇴",
   case
     when (select count(*) from attendance detail where attendance seg = a.seg ) > 1 then '외출'
     else '.'
  end as "외출"
from attendance a
  left outer join attendance_detail d
     on d.attendance_seq = a.seq
        inner join student s
           on s.seq = a.student_seq
              where a.attendance_date < sysdate
```

group by a.seq, a.attendance_date, a.student_seq;

2. 특정개설과정의 모든 교육생 출결상황 조회

```
select
  "학생번호",
  count(decode("출석", '출석', 1)) as "출석일수",
  count(decode("지각조퇴", '출석..', 1)) as "정상일수",
  count(decode("지각조퇴", '출석지각.', 1)) as "지각일수",
  count(decode("지각조퇴", '출석.조퇴', 1)) as "조퇴일수",
  count(decode("지각조퇴", '출석지각조퇴', 1)) as "지각 및 조퇴일수",
  count(decode("지각조퇴", '외출', 1)) as "외출일수",
  count(decode("지각조퇴", '결석', 1)) as "결석일수",
  count(decode("출석", '병가', 1)) as "병가일수",
  count(decode("출석", '기타', 1)) as "기타일수"
from
  (select i.*, 출석||지각||조퇴 as "지각조퇴" from attendance_info i
    where "학생번호" in (select seg from student where open curs seg = <선택한 특정개설과정번호>)
       and "날짜" between <조회하는 시작년월일> and <조회하는 끝년월일>)
       group by "학생번호";
```

3. 특정교육생의 출결현황 조회

select * from attendance_info where "학생번호" = <학생번호>;

요구사항번호	B-09	작성일	2022-05-18
요구사항명	취업 공고 관리 및 조회	작성자	강지윤

DML

▶ where 절 < > 위치에는 <>안에 있는 내용에 해당하는 데이터 입력

--1. 전체 취업 공고조회(회사명, 지역, 분야, 계약형태, 모집인원, 모집시작날짜, 모집종료날짜)

select

a.company as 회사명,

city.city as 지역,

job_field.field_name as 분야,

contract_type.contract_type as 계약형태,

a.people as 모집인원,

a.begin_date as 모집시작날짜,

a.end_date as 모집종료날짜

```
from job_announce a
     inner join city on city.seq = a.city_seq
     inner join job_field on job_field.seq = a.field_seq
     inner join contract_type on contract_type.seq = a.contract_seq
     order by 모집시작날짜;
--2. 기간별 조회(모집종료날짜가 'yyyy-mm-dd'부터 'yyyy-mm-dd' 사이인 기간 조회)
--where 절에 원하는 기간 입력
select
     a.company as 회사명,
     city.city as 지역,
     job_field.field_name as 분야,
     contract_type.contract_type as 계약형태,
     a.people as 모집인원,
     a.begin_date as 모집시작날짜,
     a.end date as 모집종료날짜
from job_announce a
     inner join city on city.seq = a.city_seq
     inner join job_field on job_field.seq = a.field_seq
     inner join contract_type on contract_type.seq = a.contract_seq
     where a.end_date between <기간시작날짜> and <기간종료날짜>
     order by 모집종료날짜;
```

```
--3.분야별 (분야명으로 검색 ex. 웹개발) 조회
--where 절에 원하는 분야명 입력
select
     a.company as 회사명,
     city.city as 지역,
     job_field.field_name as 분야,
     contract_type.contract_type as 계약형태,
     a.people as 모집인원,
     a.begin_date as 모집시작날짜,
     a.end_date as 모집종료날짜
from job_announce a
     inner join city on city.seq = a.city_seq
     inner join job_field on job_field.seq = a.field_seq
     inner join contract_type on contract_type.seq = a.contract_seq
     where job_field.field_name = <분야명>
     order by 모집시작날짜;
--4. 지역별(지역명으로 검색 - ex. 서울) 조회
--where 절에 원하는 지역명 입력
select
     a.company as 회사명,
     city.city as 지역,
     job_field.field_name as 분야,
```

```
contract_type.contract_type as 계약형태,
a.people as 모집인원,
a.begin_date as 모집시작날짜,
a.end_date as 모집종료날짜

from job_announce a
   inner join city on city.seq = a.city_seq
   inner join job_field on job_field.seq = a.field_seq
   inner join contract_type on contract_type.seq = a.contract_seq
   where city.city = <지역명>
   order by 모집시작날짜;
```

--5. 취업공고 등록

--등록할 데이터 입력

insert into job_announce values ((select max(seq) + 1 from job_announce), 회사명, 지역번호, 분야번호, 계약형태번호, 모집인원수, 모집시작날짜, 모집종료날짜);

--6. 취업공고 수정

--where 절에 수정할 취업공고번호를 입력하고, 수정할 데이터 입력 update job_announce set company = 회사명 where seq = 수정할취업공고번호; update job_announce set city_seq = 지역번호 where seq = 수정할취업공고번호; update job_announce set field_seq = 분야번호 where seq = 수정할취업공고번호; update job_announce set constract_seq = 계약형태번호 where seq = 수정할취업공고번호; update job_announce set people = 모집인원 where seq = 수정할취업공고번호; update job_announce set begin_date = 모집시작날짜 where seq = 수정할취업공고번호;

update job_announce set end_date = 모집종료날짜 where seq = 수정할취업공고번호;

--7. 취업공고 삭제

delete from job_announce where seq = 삭제할취업공고번호;

요구사항번호	B-10	작성일	2022-05-18	
요구사항명	교육생 상담일지 관리 및 조회	작성자	강지윤	

DML

▶where 절 < > 위치에는 <>안에 있는 내용에 해당하는 데이터 입력

--1. 전체 상담일지 조회 (교육생 이름, 교사이름, 상담주제, 상담날짜)

select

member.name as 교육생이름, teacher.name as 교사이름, counsel_topic.counsel_topic as 상담주제, counsel_date as 상담날짜 from counsel

inner join counsel_topic on counsel_topic.seq = counsel_topic_seq

inner join student on student.seq = student_seq

inner join member on member.seq = student.member_seq

inner join teacher on teacher.seq = counsel.teacher_seq;

--2. 상담일지 기간별 조회

--where 절에 원하는 기간 입력

select

member.name as 교육생이름, teacher.name as 교사이름, counsel_topic.counsel_topic as 상담주제, counsel_date as 상담날짜

from counsel

inner join counsel_topic on counsel_topic.seq = counsel_topic_seq

inner join student on student.seq = student_seq

inner join member on member.seq = student.member_seq

inner join teacher on teacher.seq = counsel.teacher_seq

where counsel_date between <기간시작날짜> and <기간종료날짜>;

요구사항번호	C-01	작성일	2022-05-18
요구사항명	교사 계정	작성자	고민지

DML

1. 로그인한 교사의 개인정보 조회

select

t.seq,

t.name as "이름",

t.tel as "연락처"

from teacher t

where ssn = <로그인 한 교사의 패스워드>;

1-2 개인정보 수정하기

update teacher set (name, tel) = (<이름>,<연락처>) where ssn = <로그인 한 교사의 패스워드>;

요구사항번호	C-02	작성일	2022-05-18
요구사항명	강의 스케줄 조회	작성자	고민지

1. 로그인한 교사의 강의정보를 강의예정, 강의 중, 강의 종료로 구분하여 조회

```
select
  s.seq as "과목 번호",
  case
     when s.begin_date > sysdate then '강의 예정'
     when s.end_date < sysdate then '강의 종료'
     else '강의 중'
  end as "진행 상태",
  (select r.name from curriculum r where r.seq = c.curs_seq) as "과정명",
  c.begin_date as "과정 시작일",
  c.end date as "과정 종료일",
  (select l.room_name from lectureroom l where l.seq = c.room_seq) as "강의실",
  (select j.subject_name from subject j where j.seq = s.subject_seq) as "과목명",
  s.begin_date as "과목 시작일",
  s.end date as "과목 종료일",
  (select subject from book where seq = b.book_seq) as 교재명,
  subject_student_num(s.seq) as "교육생 등록인원"
```

```
from open_subject s
inner join open_curs c
on s.open_curs_seq = c.seq
right outer join subject_book b
on b.subject_seq = s.subject_seq
where teacher_seq = <로그인한 교사의 번호>;
```

2. 로그인한 교사의 특정 강의과목의 수강생 정보 조회

```
select
  m.name as "이름",
  m.tel as "전화번호",
  t.regdate as "등록일",
  case
     when t.drop_out = '중도탈락' and t.drop_out_date < s.end_date then '중도탈락'
     when s.begin_date >= sysdate then '수강예정'
     when (s.begin_date < sysdate) and (sysdate < s.end_date) then '수강중'
     when s.end_date <= sysdate then '수료'
  end as "수강 상태"
from open_subject s
  inner join open_curs c
     on s.open_curs_seq = c.seq
        inner join student t
           on t.open_curs_seq = c.seq
             inner join member m
                on t.member_seq = m.seq
where s.seq = <특정 개설과목번호>;
```

요구사항번호	C-03	작성일	2022-05-18
요구사항명	평가 관리 및 조회	작성자	고민지

1. 로그인한 교사의 강의종료과목 관련 정보를 조회

```
select
  s.seg as "과목 번호",
  (select r.name from curriculum r where r.seq = c.curs_seq) as "과정명",
  c.begin_date as "과정 시작일",
  c.end_date as "과정 종료일",
  (select l.room_name from lectureroom I where l.seq = c.room_seq) as "강의실",
  (select j.subject_name from subject j where j.seq = s.subject_seq) as "과목명",
  s.begin_date as "과목 시작일",
  s.end_date as "과목 종료일",
  (select subject from book where seq = b.book_seq) as 교재명,
  p.attend_point as "출석 배점",
  p.written_point as "필기 배점",
  p.skill point as "실기 배점"
from open_subject s
  inner join open_curs c
     on s.open_curs_seq = c.seq
        inner join point p
           on p.open_subject_seq = s.seq
```

right outer join subject_book b

```
on b.subject_seq = s.subject_seq
                  where s.end_date < sysdate
                      and s.teacher seg = <로그인한 교사의 번호>
1-2. 배점정보 입력/ 수정 / 삭제
--입력
create sequence point_seq start with (select seq + 1 from (select seq from point order by seq desc) where rownum =1);
insert into point values (point_seq.nextVal, <선택한 개설과목번호>, <출석배점>, <필기배점>, <실기배점>);
-- 수정
update point set (attend_point, written_point, skill_point) = (<출석배점>, <필기배점>, <실기배점>) where open_subject_seq = <선택한 개설과목번호>;
-- 삭제
delete from point where open_subject_seq = <선택한 개설과목번호>;
2. 특정 강의 종료 과목의 시험정보 조회
select
  "분류",
  seq as "시험번호",
  written name as "시험명",
  written date as "시험일자"
from (select '필기' as "분류", w.* from written_test w
     UNION
     select '실기' as "분류", s.* from skill test s)
```

```
where open_subject_seq = <선택한 개설과목번호>;
     order by "분류" desc, "시험일자";
2-2 시험정보 입력 / 수정 / 삭제 > 실기인지 필기인지 구분하여 사용! ***
-- 입력
create sequence written_test_seq start with (select seq + 1 from (select seq from written_test order by seq desc) where rownum =1);
insert into written_test values(written_test_seq.nextVal, <선택한 개설과목번호>, <시험이름>, <시험날짜>)
create sequence skill test seg start with (select seg + 1 from (select seg from skill test order by seg desc) where rownum =1);
insert into skill test values(skill test seg.nextVal, <선택한 개설과목번호>, <시험이름>, <시험날짜>)
-- 수정
update written_test set (written_name, written_date) = (<시험이름>, <시험날짜>) where seg = <시험번호>;
update skill_test set (skill_name, skill_date) = (<시험이름>, <시험날짜>) where seq = <시험번호>;
-- 삭제
delete from written_test where seq = <시험번호>;
delete from skill_test where seq = <시험번호>;
```

2-3 특정 강의 종료과목의 시험문제 조회

```
select
  question_seq as "문제번호",
  written test question as "문제"
from written test question
where written test seq = <필기시험번호>;
select
  question seg as "문제번호",
  skill test question as "문제"
from skill test question
where skill test question = <실기시험번호>;
2-4 시험문제 입력/ 수정/ 삭제
-- 입력
create sequence written_question_seq start with (select seq + 1 from (select seq from written_test_question order by seq desc) where rownum =1);
insert into written_test_question values (written_question_seq.nextVal, <선택한 실기시험번호>, <문제번호>, <문제>);
create sequence skill_question_seq start with (select seq + 1 from (select seq from skill_test_question order by seq desc) where rownum =1);
insert into skill test guestion values (skill guestion seg.nextVal, <선택한 실기시험번호>, <문제번호>, <문제>);
-- 수정
update written_test_question set (question_seq, written_test_question) = (<문제번호>, <문제>)
  where seq = <선택한 필기시험문제번호>;
update skill_test_question set (question_seq, skill_test_question) = (<문제번호>, <문제>)
```

```
where seq = <선택한 실기시험문제번호>;

-- 삭제
delete from written_test_question where seq = <선택한 필기시험문제번호>;
delete from skill_test_question where seq = <선택한 실기시험문제번호>;
```

요구사항번호	C-04	작성일	2022-05-18
요구사항명	성적 관리 및 조회	작성자	권민채

1. 과목 목록 출력

select

open_subject.seq as 과목번호,
curriculum.name as 과정명,
subject.subject_name as 개설과목,
open_subject.begin_date as "과목 시작일",
open_subject.end_date as "과목 종료일",
lectureroom.room_name as 강의실명,
teacher.name as 교사명
from open_curs
inner join open_subject on open_subject.open_curs_seq = open_curs.seq

inner join curriculum on open_curs.curs_seq = curriculum.seq inner join subject on subject.seq = open_subject.subject_seq inner join lectureroom on open_curs.room_seq = lectureroom.seq inner join teacher on open_subject.teacher_seq = teacher.seq order by open_subject.seq;

2. 특정 과목번호의 교육생 정보 및 성적 조회 select open_subject.seq as 과목번호, subject.subject_name as 과목명, member.name as 이름, member.tel as 전화번호, student.drop_out as "중도탈락 여부", subject_score.written_score as 필기점수, subject_score.skill_score as 실기점수, subject_score.attendance_score as 출결점수 from student inner join member on member.seq = student.member_seq inner join subject_score on subject_score.student_seq = student.seq inner join open_subject on open_subject.seq = subject_score.open_subject_seq inner join subject on subject.seq = open_subject.subject_seq where open_subject.seg = <과목번호>;

```
3. 특정 교육생 번호와 과목명 입력시 시험 점수를 입력
select
open_subject.seq as 과목번호,
subject.subject_name as 과목명,
member.name as 이름,
student.seq as 교육생번호,
student.drop out as "중도탈락 여부",
subject score.written score as 필기점수,
subject_score.skill_score as 실기점수,
subject_score.attendance_score as 출결점수
from student
inner join member on member.seq = student.member_seq
inner join subject_score on subject_score.student_seq = student.seq
inner join open_subject on open_subject.seq = subject_score.open_subject_seq
inner join subject on subject.seq = open_subject.subject_seq
where subject_score.written_score is null;
update subject_score
set
subject_score.written_score = <필기점수>,
subject_score.skill_score = <실기점수>,
subject_score.attendance_score = <출결점수>,
where subject score.open subject seg =<과목번호> and subject score.student seg = <교육생번호>;
```

요구사항번호	C-05	작성일	2022-05-18
요구사항명	출결 관리 및 출결 조회	작성자	권민채

DML

```
1.전체 출결현황 조회
select
  a.student_seq as "학생번호",
  a.seq as "출결번호",
  a.attendance_date as "날짜",
  case
     when min(d.checkin) is not null then '출석'
     when to_char(a.attendance_date, 'd') = 7 or to_char(a.attendance_date, 'd') = 1 then '(주말)'
     when (select sick_or_etc from sick_or_etc where attendance_seq = a.seq) = '병가' then '병가'
     when (select sick_or_etc from sick_or_etc where attendance_seq = a.seq) = '7|E|' then '7|E|'
    when (select count(*) from holiday where holiday_date = a.attendance_date) > 0 then '(공휴일)'
     else '결석'
  end as "출석",
  case
     when to date(min(d.checkin), 'hh24:mi') >= to date('09:10', 'hh24:mi') then '지각'
     else '.'
  end as "지각",
  case
     when to_date(max(d.checkout), 'hh24:mi') < to_date('17:50', 'hh24:mi') then '조퇴'
     else '.'
  end as "조퇴",
  case
     when (select count(*) from attendance_detail where attendance_seq = a.seq ) > 1 then '외출'
```

```
else '.'
  end as "외출"
from attendance a
  left outer join attendance detail d
     on d.attendance seg = a.seg
       inner join student s
          on s.seq = a.student_seq
            where a.attendance_date < sysdate
               group by a.seg, a.attendance date, a.student seg;
2.특정개설과정의 모든 교육생 출결상황 조회
select
  "학생번호",
  count(decode("출석", '출석', 1)) as "출석일수",
  count(decode("지각조퇴", '출석..', 1)) as "정상일수",
  count(decode("지각조퇴", '출석지각.', 1)) as "지각일수",
  count(decode("지각조퇴", '출석.조퇴', 1)) as "조퇴일수",
  count(decode("지각조퇴", '출석지각조퇴', 1)) as "지각 및 조퇴일수",
  count(decode("지각조퇴", '외출', 1)) as "외출일수",
  count(decode("지각조퇴", '결석', 1)) as "결석일수",
  count(decode("출석", '병가', 1)) as "병가일수",
  count(decode("출석", '기타', 1)) as "기타일수"
from
  (select i.*, 출석||지각||조퇴 as "지각조퇴" from attendance_info i
     where "학생번호" in (select seg from student where open curs seg = <선택한 특정개설과정번호>)
       and "날짜" between <조회하는 시작년월일> and <조회하는 끝년월일>)
```

group by "학생번호";

요구사항번호	C-06	작성일	2022-05-18
요구사항명	상담일지 작성 및 조회	작성자	권민채

DML

1. 상담일지 조회

select

member.name as 교육생이름, counsel_topic.counsel_topic as 상담주제, counsel_date as 상담날짜, curriculum.name as 수강과정

from counsel

inner join counsel_topic on counsel_topic.seq = counsel_topic_seq inner join student on student.seq = student_seq inner join member on member.seq = student.member_seq inner join teacher on teacher.seq = counsel.teacher_seq inner join open_curs on open_curs.seq = student.open_curs_seq inner join curriculum on curriculum.seq = open_curs.curs_seq where teacher.name = <로그인한 교사 이름> order by counsel_date;

```
2. 특정 교육생의 상담현황 조회
select
  member.name as 교육생이름,
  counsel topic.counsel topic as 상담주제,
  counsel date as 상담날짜,
  curriculum.name as 수강과정
from counsel
  inner join counsel topic on counsel topic.seg = counsel topic seg
  inner join student on student.seg = student seg
  inner join member on member.seq = student.member_seq
  inner join teacher on teacher.seg = counsel.teacher_seg
      inner join open_curs on open_curs.seq = student.open_curs_seq
      inner join curriculum on curriculum.seg = open_curs.curs_seg
where member.name = <교육생 이름>
      order by counsel_date;
 3. 특정 과정별 상담현황 조회
select
  member.name as 교육생이름,
  counsel_topic.counsel_topic as 상담주제,
  counsel_date as 상담날짜,
  curriculum.name as 수강과정
from counsel
  inner join counsel_topic on counsel_topic.seq = counsel_topic_seq
  inner join student on student.seq = student_seq
  inner join member on member.seq = student.member_seq
  inner join teacher on teacher.seg = counsel.teacher seg
      inner join open_curs on open_curs.seq = student.open_curs_seq
```

```
inner join curriculum on curriculum.seq = open_curs.curs_seq
where curriculum.name = <과정이름>
order by counsel_date;
4.상담일지 등록
insert into counsel values (counsel_seq.nextval, <교육생번호>, <상담주제번호>, <상담일자>);
5.상담일지 수정
update counsel
set (student_seq, counsel_topic_seq, counsel_date) = (<교육생번호>,<상담주제번호>,<상담일자>)
where counsel_seq = <상담일지 번호>;
6.상담일지 삭제
delete from counsel where counsel_seq = <상담일지 번호>;
3. 지역별 취업공고 조회
select
city.city as "지역",
job_announce.company as "회사명",
job_field.field_name as "분야",
contract_type.contract_type as "직위",
job_announce.people as "모집인원",
job_announce.begin_date as "모집 시작일",
job_announce.end_date as "모집 종료일"
```

from job_announce inner join city on job_announce.city_seq = city.seq inner join job_field on job_announce.field_seq= job_field.seq inner join contract_type on job_announce.contract_seq = contract_type.seq where city.city = <지역명>;

요구사항번호	C-07	작성일	2022-05-17
요구사항명	과제 등록 및 제출 현황 조회	작성자	주혜원

DML

--과제조회

select

st.seq as 교육생번호,

m.name as 교육생이름,

s.seq as 과제제출번호,

s.task_seq as 과제번호,

s.summit_date as 제출날짜,

t.open_curs_seq as 과정,

t.open_subject_seq 과목,

t.task_description as "과제설명"

from task_list t

inner join summit s

on t.seq = s.task_seq

inner join student st

--과제 등록 ->프로시저 →완료

insert into task_list(seq,open_curs_seq,open_subject_seq,task_description,summit limit) values ((select max(seq) + 1 from task_list),12,<과목번호>,

요구사항번호	D-01	작성일	2022-05-17
요구사항명	교육생 계정	작성자	주혜원

DML

계정으로 로그인 후교육생 기본정보 간단하게 출력

s.seq as "교육생번호",

m.name as "이름",

m.ssn as "주민등록번호",

c.name as"과정이름",

s.regdate as "등록일",

l.room_name as "강의실명"

from student s

inner join member m

on m.seq = s.member_seq

inner join open_curs o

on o.seq = s.open_curs_seq inner join curriculum c on c.seq = o.curs_seq inner join lectureroom I on l.seq = o.room_seq;

요구사항 명	D-02	작성일	2022-05-17
System	성적 조회	작성자	주혜원

Query

--제목 출력 ->포로시저 O 완료

--교육생 계정으로 로그인 후 본인의 개인정보와 본인이 수강한 과정명, 과정기간(시작 년월일, 끝 년월일), 강의실

select

s.seq as "교육생번호",

m.name as "이름",

m.tel as "전화번호",

c.name as"과정이름",

o.current_term as "과정기간",

o.begin_date as "과정시작일",

o.end_date as "과정종료일",

l.room_name as "강의실"

```
from student s
  inner join member m
     on m.seq = s.member_seq
       inner join open_curs o
          on o.seq = s.open_curs_seq
              inner join curriculum c
                on c.seq = o.curs_seq
                  inner join lectureroom I
                    on l.seq = o.room_seq
                       where m.ssn = <4256385>;
--학생번호,과목번호, 과목명, 과목기간, 교재명, 교사명, 과목별 배점 정보(출결,필기,실기 배점), 과목별 성적정보(출결,필기,실기 점수), 과목별 시험 날짜
select -> 프로시저 o 완료
s.seg "학생 번호",
os.subject_seq as "과목번호",
m.ssn as"주민번호",
sb.subject_name as "과목이름",
os.end_date - os.begin_date as "과목기간",
b.subject as "교재이름",
t.name as "교사명",
p.attend_point as "출석배점",
p.written_point as "필기배점",
p.skill_point as "실기배점",
(select written_score from subject_score where student_seq = s.seq and open_subject_seq = os.seq) as "필기점수",
```

```
(select skill_score from subject_score where student_seq = s.seq and open_subject_seq = os.seq) as "실기점수",
(select attendance_score from subject_score where student_seq = s.seq and open_subject_seq = os.seq) as "출결점수",
st.skill date as "실기시험날짜"
from student s
  inner join open_curs o
     on o.seq = s.open_curs_seq
        inner join open_subject os
           on o.seq = os.open_curs_seq
              inner join subject sb
                 on sb.seq = os.subject_seq
                    inner join subject_book sbb
                       on sb.seq= sbb.book_seq
                          inner join book b
                             on b.seq= sbb.book_seq
                                inner join teacher t
                                   on t.seq = os.teacher_seq
                                         left outer join point p
                                           on os.seq = p.open_subject_seq
                                              inner join skill_test st
                                                 on os.seq = st.open_subject_seq
                                                    inner join member m
                                                        on m.seq = s.member_seq
                                                          where m.ssn = <2660833>
                                                            order by s.seq;
```

--과목 컬럼은 따로 빼서 만듦(너무 커져서)

```
--필기시험 ->프로시저 O 완료
select
  wt.open_subject_seq as "과목번호",
  s.subject_name as "과목이름",
  os.end_date - os.begin_date as "과목기간",
  wt.seq as "필기시험번호",
  wt.written name as "필기시험 이름",
  q.written_test_question as "필기시험문제"
from written test wt
     inner join written_test_question q
        on wt.seq = q.written_test_seq
          inner join open_subject os
             on os.seq = wt.open_subject_seq
               inner join subject s
                 on s.seq = os.subject_seq
                    where wt.open_subject_seq= <51>; --보고싶은 과목 번호 입력
--실기시험 ->프로시저 ->완료
select
```

```
st.open_subject_seq as "과목번호",
s.subject_name as "과목이름",
os.end_date - os.begin_date as "과목기간",
st.seq as "실기시험번호",
st.skill_name as "실기시험 이름",
q.skill_test_question as "실기시험문제"

from skill_test st
    inner join skill_test_question q
    on st.seq = q.skill_test_seq
    inner join open_subject os
    on os.seq = st.open_subject_seq
    inner join subject s
    on s.seq = os.subject_seq
    where st.open_subject_seq= <51>; --보고싶은 과목 번호 입력
```

요구사항 명	D-03	작성일	2022-05-17
System	출결 관리 및 출결 조회	작성자	주혜원

Query

--근태,기록하기

insert into attendance_detail (seq, attendance_seq,checkin,checkout) values ((select max(seq) + 1 from attendance.detial), (select max(attendance_seq) + 1 from attendance.detial), <입실시간>,<퇴실시간>);

요구사항 명	D-04	작성일	2022-05-17	
System	상담일지조회	작성자	주혜원	
Query				

```
select -> 프로시저
m.name as 이름,
c.counsel_date as 상담날짜,
t.counsel_topic as 상담주제,
t.name as 교사명
from counsel c
    inner join counsel_topic t
    on t.seq = c.counsel_topic_seq
    inner join student s
    on s.seq = c.student_seq
    inner join member m
    on m.seq = s.member_seq
    inner join teacher t
    on t.seq = c.teacher_seq
    where m.ssn = <2660833>;
```

요구사항번호	D-05	작성일	2022-05-18
요구사항명	과제 조회 및 제출	작성자	김성태
DML			

```
--과목 별 과제 확인
select
  c.name as "과정 명",
  s.subject_name as "과목 명",
  t.task_description as "과제설명",
  t.summit_limit as "제출기한"
from task_list t
  inner join open_curs oc
     on t.open_curs_seq = oc.seq
        inner join curriculum c
           on oc.curs_seq = c.seq
              inner join open_subject os
                 on t.open_subject_seq = os.seq
                    inner join subject s
                      on os.subject_seq = s.seq;
```

--자신이 제출한 과제 목록 조회

select

```
s.seq,
t.task_description as "과제설명",
m.name as "제출자",
s.summit_date as "제출날짜",
t.summit_limit as "제출기한"

from summit s
inner join task_list t
on s.task_seq = t.seq
inner join student stu
on s.student_seq = stu.seq
inner join member m
on stu.member_seq = m.seq
where m.ssn = <2108289>; -- 로그인 한 교육생의 주민번호 뒷자리(패스워드)
```

요구사항번호	D-06	작성일	2022-05-19
요구사항명	스터디 조회기능	작성자	임종운
DML			

<>안에 CRUD 할 대상의 정보를 입력

1. 스터디 조회

SELECT

st.topic, sr.study_name, sr.study_description, m.name, sr.email, m.tel, sr.begin_date, sr.end_date, sr.completement

FROM study_recruit sr

INNER JOIN study_topic st ON sr.study_topic_seq = st.seq

INNER JOIN student s ON s.seq = sr.student_seq

INNER JOIN member m ON s.member_seq = m.seq

WHERE

sr.completement = <모두보기('o'), 모집중 공고만보기('x')>

2. 스터디 모집 공고 등록

2.1 등록하는 사람 이름 확인

SELECT

s.seq, m.name

FROM student s

INNER JOIN member m ON s.member_seq = m.seq;

2.2 스터디 토픽조회

SELECT

*

FROM study_topic

WHERE topic LIKE '%%';

2.3 스터디 등록

INSERT INTO study_recruit(seq, student_seq, study_topic_seq, study_name, study_description, begin_date, end_date, recruit_limit, email, completement)

VALUES (study_recruit_seq.nextval, <등록하는 사람의 일련번호>, <스터디 주제 일련번호>, <'스터디 이름'>, <'스터디 설명'>, <시작일자>,

<종료일자>, <모집정원>, <이메일>, <마감여부>);

2.4 스터디 모집상태 변경

UPDATE study_recruit SET completement = <모집상태('o', 'x')> WHERE seq = <스터디 일련번호>;

2.4 스터디 모집 삭제

CASCADE

요구사항번호	D-07	작성일	2022-05-18
요구사항명	취업공고 조회	작성자	권민채

DML

1. 분야별 취업 공고 조회

select

city.city as "지역",

job_announce.company as "회사명",

job_field.field_name as "분야",

contract_type.contract_type as "직위",

job_announce.people as "모집인원",

```
job_announce.begin_date as "모집 시작일",
job_announce.end_date as "모집 종료일"
from job announce
inner join city on job announce.city seg = city.seg
inner join job field on job announce.field seg= job field.seg
inner join contract_type on job_announce.contract_seq = contract_type.seq
where contract type.contract type = <직위>;
2. 기간별 취업공고 조회
select
city.city as "지역",
job announce.company as "회사명",
job field.field name as "분야",
contract_type.contract_type as "직위",
job_announce.people as "모집인원",
job_announce.begin_date as "모집 시작일",
iob announce.end date as "모집 종료일"
from job_announce
inner join city on job_announce.city_seq = city.seq
inner join job_field on job_announce.field_seq= job_field.seq
inner join contract_type on job_announce.contract_seq = contract_type.seq
where job announce.end date between <모집시작일> and <모집종료일>;
```