

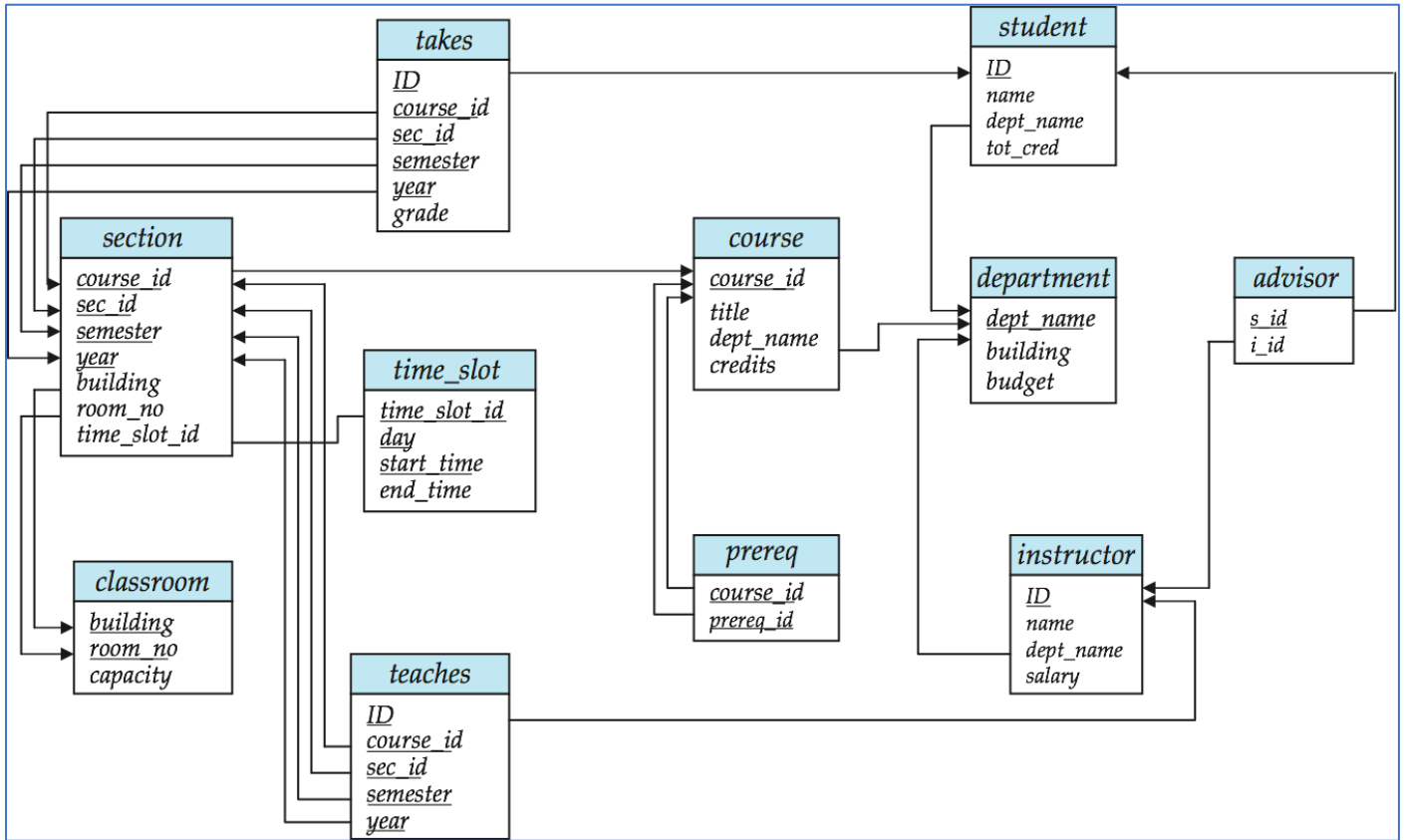
데이터베이스시스템

과제1

2019305059

이현수

- 아래 각 검색요구마다 관계대수연산식과 SQL문을 작성하시오.
- 작성한 SQL문을 MS SQLSERVER에서 실행한 결과 화면도 함께 제시.
- LargeDB를 사용.
- 검색결과 화면이 한 페이지를 넘을 경우 한 페이지 분량만 제시.



1. 학과명이 'Physics'인 학과에 소속된 학생들의 이름과 학생별 총이수학점을 검색하시오.

```
select name, tot_cred
from student
where dept_name='Physics'
```

$\pi_{name, tot_cred}(\sigma_{dept_name='physics'}(student))$

100 %	Results	Messages
	name	tot_cred
1	Kieras	128
2	Terauchi	48
3	Allard	27
4	Rokhs	5
5	Saito	34
6	Malagoli	97
7	Patrick	85
8	Lazos	98
9	Kirtane	36
10	Formisano	50
11	Sun	74
12	Arinb	123
13	Kangs	9
14	Koch	88
15	Bishop	9
16	Savelleva	7
17	Juchn	51
18	Agarwal	99
19	Garze	92
20	Bradshaw	71
21	Moh	38
22	Alloto	108
23	Sugava...	41
24	Andert	98
25	Greene	11
26	Yuksel	31
27	Sorensen	109
28	Reiss	113
29	Verhoev...	25
30	Solar	90
31	Narli	56
32	Arakawa	37
33	Mali	115
34	Shaffer	42
35	Kacpr	22
36	Basile	25
37	Nakanishi	97
38	Kaupp	98
39	Falconer	78
40	Benabd	74
41	Sohn	49
42	Tsukam	72

Query executed successfully.

96개가 검색됨.

2. 학과명이 'Physics'인 학과가 운영하는 교과목 중 이수학점이 3학점 이상인 교과목들의 교과목명과 이수학점을 검색하시오

```
select title, credits
from course
where dept_name='Physics' and credits >= 3
```

$\pi_{title, credits}(\sigma_{dept_name='physics' \wedge credits \geq 3}(course))$

100 %		
Results Messages		
	title	credits
1	Differential Geometry	3
2	The Music of the Ramones	4
3	Hydraulics	4
4	Cost Accounting	4
5	Stream Processing	4
6	Journalism	4
7	The Music of Dave Edmunds	4
8	Mobile Computing	3
9	The Music of Donovan	4
10	Bacteriology	4

10개가 검색됨.

3. 예산이 '100000' 이상인 학과에 소속된 교수들의 이름과 교수별 연봉을 검색하시오.

```
select name, salary
from department, instructor
where budget >= 100000 and department.dept_name = instructor.dept_name
```

$\pi_{name, salary}(\sigma_{department.dept_name=instructor.dept_name}(\sigma_{budget \geq 100000}(department \times instructor)))$

100 %		
Results Messages		
	name	salary
1	Lembr	32241.56
2	Bawa	72140.88
3	Yazdi	98333.65
4	Wieland	124651.41
5	D'Agostino	59706.49
6	Liley	90891.69
7	Kean	35023.18
8	Atanassov	84982.92
9	Moreira	71351.42
10	Gustafsson	82534.37
11	Bourrier	80797.83
12	Bondi	115469.11
13	Soisalon-Soininen	62579.61
14	Morris	43770.36
15	Arias	104563.38
16	Murata	61387.56
17	Tung	50482.03
18	Luo	88791.45
19	Vicentino	34272.67
20	Romero	79070.08
21	Lent	107978.47
22	Sarkar	87549.80
23	Shuming	108011.81
24	Konstantinides	32570.50
25	Bancilhon	87958.01
26	Hau	43966.29
27	Dusserre	66143.25
28	Desyl	48803.38
29	Jaekel	103146.87
30	McKinnon	94333.99
31	Gutierrez	45310.53
32	Mingoz	105311.38
33	Pimenta	79866.95
34	Yin	46397.59
35	Sullivan	90038.09
36	Voronina	121141.99
37	Kenje	106554.73
38	Mahmoud	99382.59
39	Pingr	59303.62
40	Ullman	47307.10
41	Levine	89805.83

50개가 검색됨.

4. 2009학년도 가을(Fall) 학기에 강의를 담당하였던 교수들의 이름과 소속학과를 검색하시오.

```
select distinct name, dept_name
from teaches, instructor
where year= 2009 and semester = 'Fall' and instructor.ID=teaches.ID
```

$\pi_{name, dept_name}(\sigma_{teaches.ID=instructor.ID}(\sigma_{year=2009 \wedge semester='Fall'}(teaches \times instructor)))$

100 %		
Results Messages		
	name	dept_name
1	Bourrier	Comp. Sci.
2	Dale	Cybernetics
3	Jaekel	Athletics
4	Mahmoud	Geology
5	Mingoz	Finance
6	Morris	Marketing
7	Romero	Astronomy

7개가 검색됨.

5. 'Physics' 학과에 소속된 교수들로부터 지도받는 학생들의 이름을 검색하시오.

```
select student.name
from student, advisor, instructor
where instructor.dept_name='Physics' and instructor.ID=advisor.i_ID and advisor.s_ID=student.ID
```

$\pi_{student.name}(\sigma_{advisor.s_ID=student.ID}(\sigma_{instructor.ID=advisor.i_ID}(\sigma_{instructor.dept_name='physics'}(instructor \times advisor \times student))))$

100 %	
Results Messages	
	name
1	Hito
2	Power
3	Bumbau
4	Lazos
5	Lapio
6	Williams
7	Orlet
8	Meyl
9	King
10	Ma
11	Cheah
12	Silverman
13	DAgostino
14	Steeh
15	Crick
16	Kennedy
17	Sutter
18	Marsh
19	Mall
20	Porter
21	Graziano
22	Otterm
23	Gradino
24	Peskin
25	Scibilli
26	Tabor
27	Tola
28	Arinb
29	Lin
30	Nguyen
31	Correla
32	Wakamiya
33	Ludwig
34	Margetts
35	Deng
36	Ivanov
37	Badran
38	Bensaber
39	Vulp
40	Roytman
41	Dietzsch

70개가 검색됨.