DB 참고자료

컴퓨터정보공학과 12121518 유호균

개발환경: MAC OS X El Capitan v 10.11.4

IDE: IntelliJ IDEA 2016.1.1(Build #IU-145.597, built on March 29, 2016)

JDK: 1.8.0\_40

JRE: 1.8.0\_40-release-b132 x86\_64

JVM: OpenJDK 64-Bit Server VM by JetBrains s.r.o

MySQL: **MySQL Community Server 5.6.30**

**평균평점 계산 방법**

   공식은

   (학점수×교과목 평점)의 합계/수강신청 총학점 수 = 학업성적 평균평점

   적용하면

   A과목 학점 × 평점 = a

   B과목 학점 × 평점 = b

   C과목 학점 × 평점 = c

   a,b,c 합계/학점합계 = 평균평점

출처: <http://www.dongseo.ac.kr/board/main_board.php?bbs_id=webBoardNA&mode=view&b_id=153>

**1번**

//ID 이름 이수학점 평점

SELECT \* FROM(

SELECT id,name, sum(credits) AS nowCredit,sum(score \* credits) / sum(credits) AS average

FROM

(SELECT id,name,tot\_cred,course\_id,grade,

CASE grade

WHEN "A+" THEN 4.3

WHEN "A" THEN 4.0

WHEN "A-" THEN 3.7

WHEN "B+" THEN 3.3

WHEN "B" THEN 3.0

WHEN "B-" THEN 2.7

WHEN "C+" THEN 2.3

WHEN "C" THEN 2.0

WHEN "C-" THEN 1.7

WHEN "D+" THEN 1.3

WHEN "D" THEN 1.0

WHEN "D-" THEN 0.7

WHEN "F" THEN 0

END AS score

FROM student NATURAL JOIN takes) AS T1

NATURAL JOIN course GROUP BY id) AS T2

WHERE average > 3.5

**2번**

//ID 이름 이수학점 평점

SELECT \* FROM(

SELECT id,name, sum(credits) AS nowCredit,sum(score \* credits) / sum(credits) AS average

FROM

(SELECT id,name,tot\_cred,course\_id,grade,

CASE grade

WHEN "A+" THEN 4.3

WHEN "A" THEN 4.0

WHEN "A-" THEN 3.7

WHEN "B+" THEN 3.3

WHEN "B" THEN 3.0

WHEN "B-" THEN 2.7

WHEN "C+" THEN 2.3

WHEN "C" THEN 2.0

WHEN "C-" THEN 1.7

WHEN "D+" THEN 1.3

WHEN "D" THEN 1.0

WHEN "D-" THEN 0.7

WHEN "F" THEN 0

END AS score

FROM student NATURAL JOIN takes) AS T1

NATURAL JOIN course GROUP BY id) AS T2

WHERE average > (입력받은 학점) order by average

**3번**

(1) 학번, 이름

select id, name from student where id = (입력받은 학번)

(2) 해당년도, 학기, 과목번호, 과목명, 학점, 성적

SELECT year, semester, course\_id, title, credits, grade FROM( select id,name,course\_id,semester,year,grade FROM student natural join takes) as T natural join course where ID = (입력받은 학번) order by year

(3) 총 이수 학점

SELECT sum(credits)

FROM( SELECT id,name,course\_id,semester,year,grade FROM student NATURAL JOIN takes) AS T NATURAL JOIN course WHERE ID = (입력받은 학번) ORDER BY year

(4)평점 평균

SELECT id,name,sum(score\*credits) / sum(credits) AS average FROM

(SELECT id,name,course\_id,grade,

CASE grade

WHEN "A+" THEN 4.3

WHEN "A" THEN 4.0

WHEN "A-" THEN 3.7

WHEN "B+" THEN 3.3

WHEN "B" THEN 3.0

WHEN "B-" THEN 2.7

WHEN "C+" THEN 2.3

WHEN "C" THEN 2.0

WHEN "C-" THEN 1.7

WHEN "D+" THEN 1.3

WHEN "D" THEN 1.0

WHEN "D-" THEN 0.7

WHEN "F" THEN 0

END AS score

FROM student NATURAL JOIN takes) AS T2

NATURAL JOIN course

WHERE id = (입력받은 학번) order by average