

CS 480
HW 3
Name: Jae Rim Choi (jchoi215)

ANSWER 1:

```
1 SELECT S.FIRST_NAME FROM STUDENT as S INNER JOIN GRADE ON GRADE.STUDENT_ID = S.ID
2 INNER JOIN COURSE_OFFERING ON COURSE_OFFERING.ID = GRADE.COURSE_OFFERING_ID
3 INNER JOIN INSTRUCTOR ON COURSE_OFFERING.INSTRUCTOR_ID = INSTRUCTOR.ID
4 WHERE INSTRUCTOR.FIRST_NAME = 'ERIC'
5 GROUP BY S.FIRST_NAME
6 HAVING COUNT(*) = (SELECT COUNT(*) FROM INSTRUCTOR as I INNER JOIN COURSE_OFFERING
7 ON COURSE_OFFERING.INSTRUCTOR_ID = I.ID where I.FIRST_NAME = 'Eric');
8
```

Result Grid

FIRST_NAME
Emily

ANSWER 2:

```
1 SELECT S.FIRST_NAME FROM STUDENT as S INNER JOIN GRADE ON GRADE.STUDENT_ID = S.ID
2 INNER JOIN COURSE_OFFERING ON COURSE_OFFERING.ID = GRADE.COURSE_OFFERING_ID
3 INNER JOIN INSTRUCTOR ON COURSE_OFFERING.INSTRUCTOR_ID = INSTRUCTOR.ID
4 WHERE S.FIRST_NAME
5
6 NOT IN (SELECT S.FIRST_NAME FROM STUDENT as S INNER JOIN GRADE ON GRADE.STUDENT_ID = S.ID
7 INNER JOIN COURSE_OFFERING ON COURSE_OFFERING.ID = GRADE.COURSE_OFFERING_ID
8 INNER JOIN INSTRUCTOR ON COURSE_OFFERING.INSTRUCTOR_ID = INSTRUCTOR.ID
9 WHERE INSTRUCTOR.FIRST_NAME = 'ERIC'
10 GROUP BY S.FIRST_NAME)
11
12 GROUP BY S.FIRST_NAME;
13
```

Result Grid

FIRST_NAME
Adela
Alex
Cathy
Jennifer
Leon

ANSWER 3:

```
1 SELECT COUNT(S.FIRST_NAME) AS NUM_STUDENTS, AVG(GRADE.GRADE) AS GPA FROM STUDENT as S INNER JOIN GRADE ON GRADE.STUDENT_ID = S.ID
2 INNER JOIN COURSE_OFFERING ON COURSE_OFFERING.ID = GRADE.COURSE_OFFERING_ID
3 INNER JOIN INSTRUCTOR ON COURSE_OFFERING.INSTRUCTOR_ID = INSTRUCTOR.ID
4 WHERE S.FIRST_NAME
5
6 NOT IN (SELECT S.FIRST_NAME FROM STUDENT as S INNER JOIN GRADE ON GRADE.STUDENT_ID = S.ID
7 INNER JOIN COURSE_OFFERING ON COURSE_OFFERING.ID = GRADE.COURSE_OFFERING_ID
8 INNER JOIN INSTRUCTOR ON COURSE_OFFERING.INSTRUCTOR_ID = INSTRUCTOR.ID
9 WHERE INSTRUCTOR.FIRST_NAME = 'ERIC'
10 GROUP BY S.FIRST_NAME)
11
```

Result Grid

NUM_STUDENTS	GPA
13	80.3846

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ANSWER 4:

```
1 SELECT COURSE.ID FROM COURSE
2 WHERE COURSE.ID
3 NOT IN(SELECT COURSE_OFFERING.COURSE_ID FROM STUDENT as S INNER JOIN GRADE ON GRADE.STUDENT_ID = S.ID
4 INNER JOIN COURSE_OFFERING ON COURSE_OFFERING.ID = GRADE.COURSE_OFFERING_ID
5 INNER JOIN INSTRUCTOR ON COURSE_OFFERING.INSTRUCTOR_ID = INSTRUCTOR.ID
6 WHERE INSTRUCTOR.FIRST_NAME = "Eric"
7 GROUP BY COURSE_OFFERING.COURSE_ID
8 )
9
```

Result Grid

ID
2
5
6
7
8
9

ANSWER 5:

```
1 SELECT S.ID FROM STUDENT as S INNER JOIN GRADE ON GRADE.STUDENT_ID = S.ID
2 INNER JOIN COURSE_OFFERING ON COURSE_OFFERING.ID = GRADE.COURSE_OFFERING_ID
3 INNER JOIN INSTRUCTOR ON COURSE_OFFERING.INSTRUCTOR_ID = INSTRUCTOR.ID
4 WHERE INSTRUCTOR.FIRST_NAME = "ERIC" and S.ID
5
6 NOT IN(
7 SELECT S.ID FROM STUDENT as S INNER JOIN GRADE ON GRADE.STUDENT_ID = S.ID
8 INNER JOIN COURSE_OFFERING ON COURSE_OFFERING.ID = GRADE.COURSE_OFFERING_ID
9 INNER JOIN INSTRUCTOR ON COURSE_OFFERING.INSTRUCTOR_ID = INSTRUCTOR.ID
10 WHERE INSTRUCTOR.FIRST_NAME != "Eric"
11 GROUP BY S.ID
12 )
13
```

Result Grid

ID
18
13
16

ANSWER 6:

```
1 SELECT COURSE_OFFERING.COURSE_ID FROM STUDENT as S INNER JOIN GRADE ON GRADE.STUDENT_ID = S.ID
2 INNER JOIN COURSE_OFFERING ON COURSE_OFFERING.ID = GRADE.COURSE_OFFERING_ID
3 INNER JOIN INSTRUCTOR ON COURSE_OFFERING.INSTRUCTOR_ID = INSTRUCTOR.ID
4 WHERE INSTRUCTOR.FIRST_NAME= 'ERIC' and GRADE.GRADE < 60
5
```

Result Grid

COURSE_ID
1

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