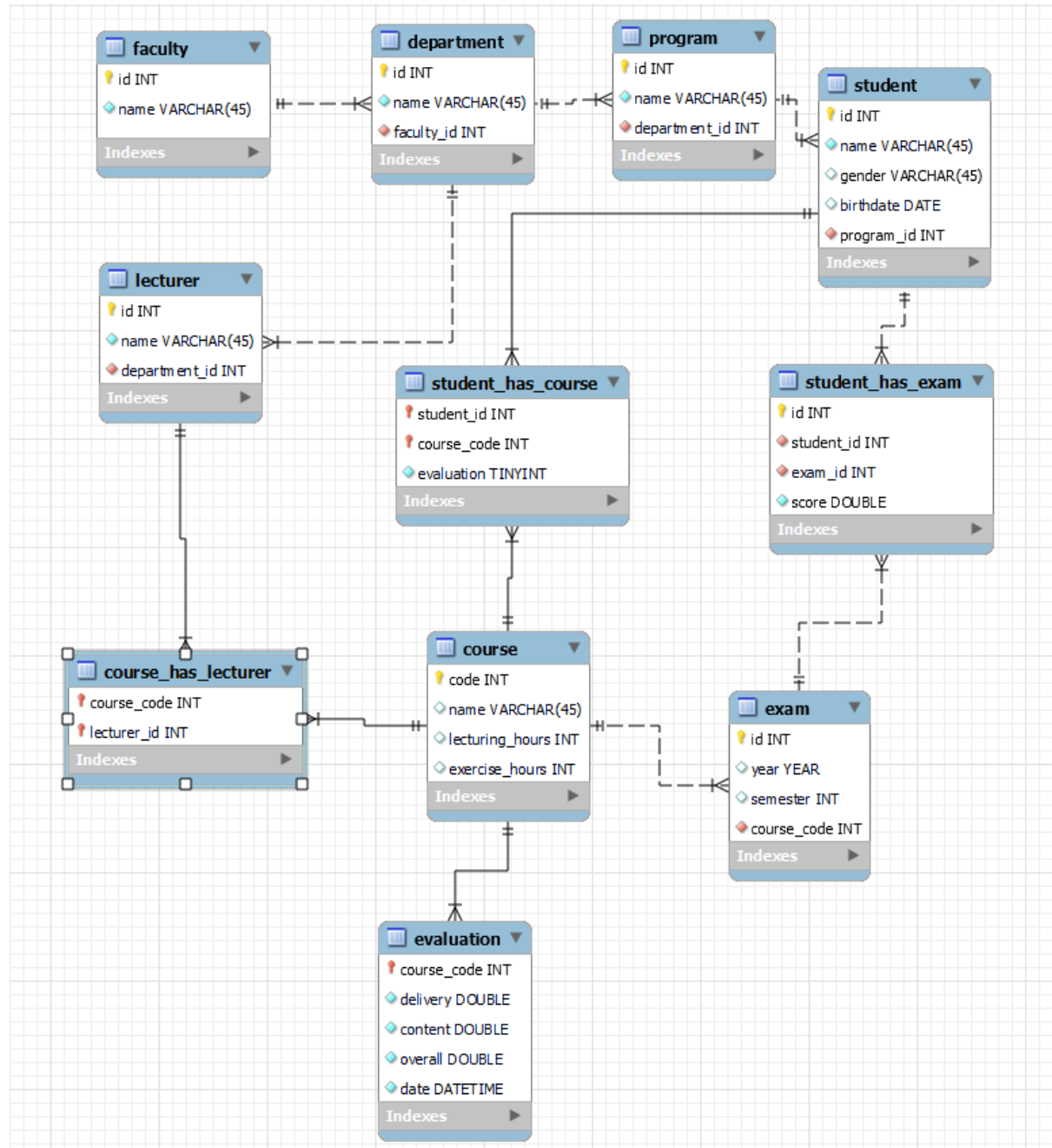


Tarea 1

Diego Alejandro Alvarado Chaparro

2.



3.

a.

```
SELECT
    department.name AS department,
    COUNT(student.id) AS number_students
FROM
    department
    INNER JOIN
    program ON program.department_id = department.id
    INNER JOIN
    student ON student.program_id = program.id
GROUP BY department.id;
```

b.

```
SELECT
    exam.year,
    COUNT(student_has_exam.student_id) AS students_taking_exams
FROM
    exam
    INNER JOIN
    student_has_exam ON exam.id = student_has_exam.exam_id
GROUP BY exam.year;
```

c.

```
SELECT
    code, name, AVG(exam_tries)
FROM
    (SELECT
        course.code,
        course.name,
        student_id,
        exam_id,
        COUNT(*) AS exam_tries
    FROM
        student_has_exam
        INNER JOIN exam ON exam.id = student_has_exam.exam_id
        INNER JOIN course ON course.code = exam.course_code
        GROUP BY student_has_exam.exam_id, student_has_exam.student_id) AS
student_tries
GROUP BY code;
```

d.

```
SELECT
    course.code,
    course.name,
    AVG(evaluation.overall) AS avg_overall
FROM
    evaluation
    INNER JOIN
    course ON course.code = evaluation.course_code
GROUP BY evaluation.course_code;
```

e.

```
SELECT
    lecturer.id,
    lecturer.name,
    AVG(student_has_exam.score) AS avg_score
FROM
    student_has_exam
    INNER JOIN
    exam ON exam.id = student_has_exam.exam_id
    INNER JOIN
    course_has_lecturer ON course_has_lecturer.course_code = exam.course_code
    INNER JOIN
    lecturer ON lecturer.id = course_has_lecturer.lecturer_id
GROUP BY lecturer.id;
```