

CS313, Lab - 2

Rishit Saiya, 180010027

September 12, 2020

1

1. *Student: Zhang's Profile:*

Student Name: Zhang

Student ID: 00128

Department Name: Comp. Sci.

Courses Taken: CS101, CS347

Course Names: CS101 → Intro. to Computer Science , CS347 → Database System Concepts

Grades: CS101 → A, CS347 → A-

Credits: CS101 → 4, CS347 → 3

Instructors Names: CS101 → Srinivasan, Katz, Brandt & CS347 → Srinivasan, Katz, Brandt

Year: 2017

Semester: Fall

Section ID: 1

Total Credits: 102

Advisor: Katz

Building: Taylor

Budget: 100000

The following queries were executed to get above information:

```
select * from student natural join takes
select * from student natural join department
select * from student natural join classroom
select * from student natural join course
select * from department natural join instructor
select * from course natural join instructor
```

Alternatively, the query can be optimized as follows:

title	course_id
Intro. to Computer Science	CS-101
Robotics	CS-315
Database System Concepts	CS-347

Figure 1: The id's and titles of all courses taught by Instructor Srinivasan

```
select * from student,department,takes,advisor,instructor where
student.name = 'Zhang' and advisor.s_ID = student.ID and student.ID =
takes.ID and department.dept_name = student.dept_name and
instructor.ID = advisor.i_ID
```

The table is very long and couldn't be attached here.

2. I executed this query and got the following output.

```
select title, course_id from course where course_id in (select course_id from
instructor natural join teaches where ID = (select ID from instructor where
name = 'Srinivasan'))
```

Figure 1 shows the output to above query.