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Assignment 1

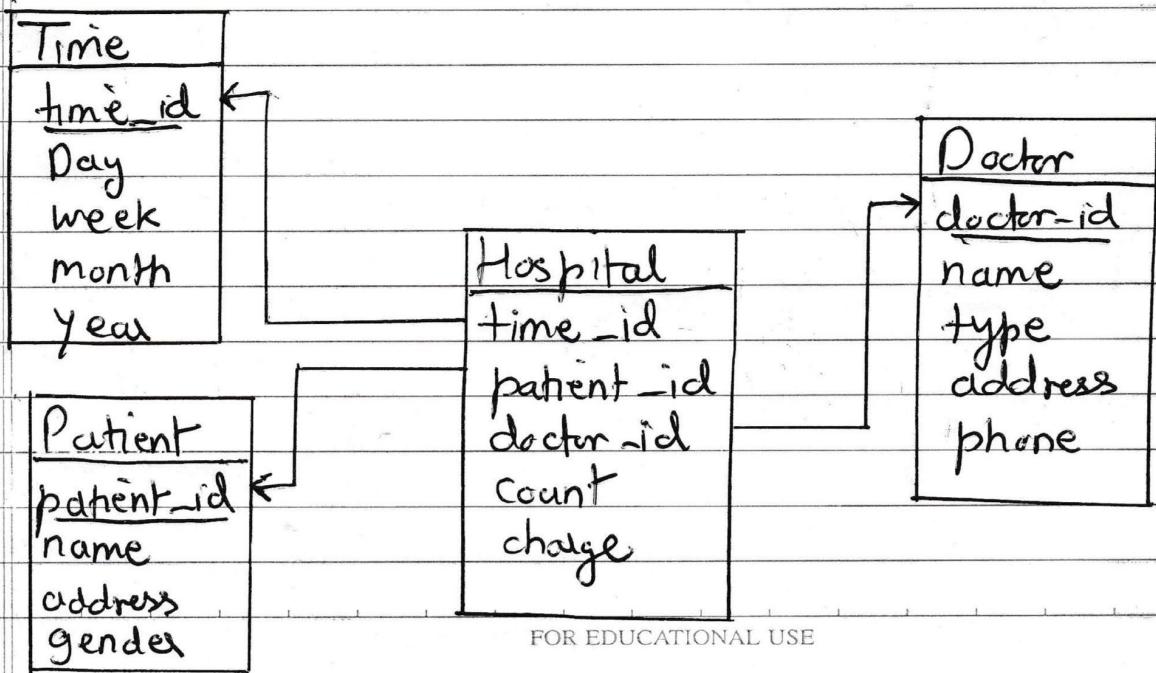
Sub: DWM

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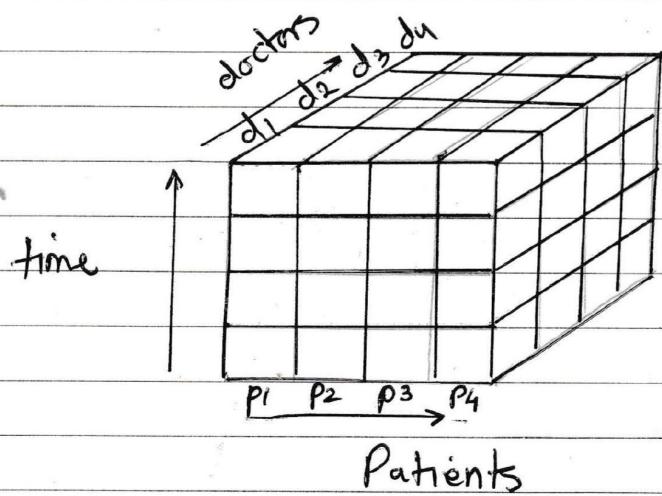
XIE Id: 2020012004

Q1) Suppose that a data warehouse consists of the three dimensions time, doctor & patient & the two measures count & charge, where charge is the fee that a doctor charges a patient for a visit. Draw a star schema diagram for the above data warehouse.

Starting with the base cuboid [day, doctor, patient]. What specific OLAP operations should be performed in order to list the total fee collected by each doctor in 2010?



Q



Operations to perform:

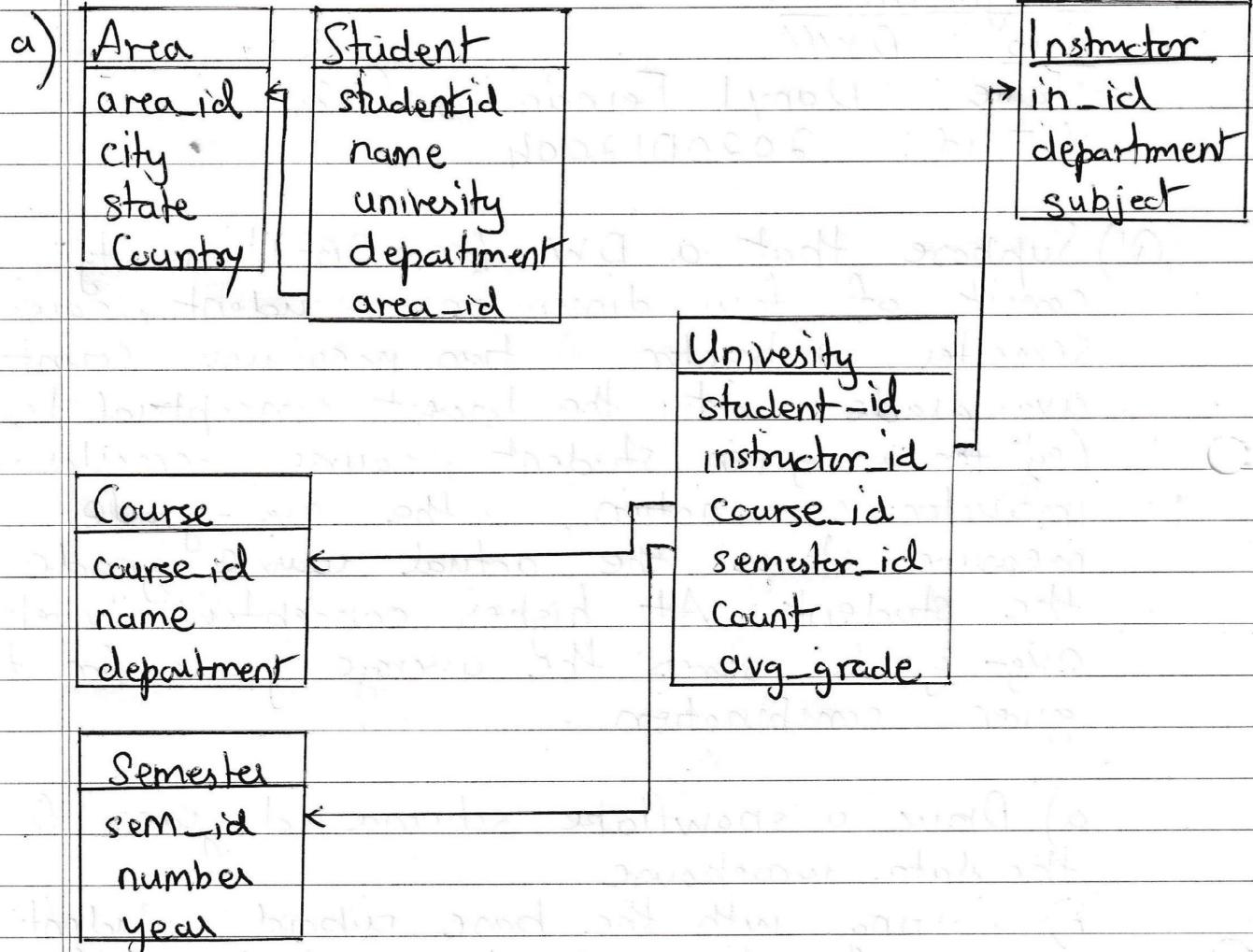
- i) Rollup on time from day to year
- ii) A slice operation on time with year = 2010
- iii) Roll up on patient from individual to all

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Q1) Suppose that a DW for DB-University consists of four dimensions Student, course, Semester, Instructor & two measures count & avg. grade. At the lowest conceptual level (eg for a given student, course, semester & instructor combination), the avg-grade measure stores the actual course grade of the student. At higher conceptual levels, avg-grade stores the average grade for the given combination.

- Draw a snowflake schema diagram for the data warehouse
- Starting with the base cuboid [student, course, semester, instructor] what specific OLAP operations (eg roll up from semester to year) should you perform in order to list the average grade of CS courses for each DB-University students

(4)



b) Operations to perform

- i) Rollup on course from course_id to department
- ii) Rollup on student from student_id to university
- iii) Dice operation on course department = CS
university = DB - University
- iv) Drill down on student from university to student_id