DBMS Lab-3
2019

General Instruction

1. [P] marked questions are for your practice, need not be submitted. There are also some practice problems at the end.
2. [B] marked questions are bonus. You will get 1 mark extra for bonus.
3. Make a single pdf file using screen shots. Work out the questions in the order given and also arrange them in the same order in the submitted pdf.

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1. Alter table: add one column *gender* to student table that can take either ‘M’ or ‘F’. Drop the column. Add one column *age* to student table with default value 0.
2. Update table: change age of students to 23 if their department is ‘Comp. Sci’.
3. [P] Increment credit of students in Physics department by 5%.
4. Show instructor table and give the 5 percentage salary hike to the instructors whose salary is less than 70000 and department is either Music or Physics.
5. [P] Show 5 highest paid instructors.
6. Show the 6th and 7th highest paid instructors.
7. Show the instructors whose department is in Taylor, Watson or Painter;
8. Show the name of the students whose total credit is between 7 and 14. Do not use comparison operators (<,>).
9. [P] Show the name of the students whose name starts with B.
10. Show the records of the students whose name starts with B excluding Brown.
11. Show ID, name, courses, and corresponding credits of each student.
12. Find sum of total credits for all students. [check if table has any null value in total credits and if sum avoids null]
13. Find the departments with the maximum budget.
14. Find the department with highest average salary paid to the instructors.
15. Show name, and salary of instructors in Finance and Biology in descending order of salary.
16. [B] Find name of instructor whose salary is greater than salary of all instructors belongs to either Biology or History or Finance department.
17. Correct the tot_credit attributes for each tuple in student table such that total credit is equal to the credit of courses successfully completed by the student. Here successfully completed means student has a grade that is not ‘F’ . Students who did not take any courses, the output for them should show total credit 0.
18. Create view of students who are studying in a department with budget more than 80000.

19. Insert a new student information in student table ID is 98761, name is ‘Raman’ and dept_name is ’Music’.
20. Create a view containing tot_cred attributes of students.
21. [P] Find out number of tuple present in that view . Does COUNT avoid NULL ?
22. Create view stud_dept_budg containing students, department names and budgets where students are studying in a department with budget more than 80000.
23. Decrease the budget of the Biology department by 10000.
24. Show the content of stud_dept_budg.

Practise problem (check class example)

- Create table inst2 same as table instructor.
- Populate inst2 with all data from instructor.
- Delete all instructor who have salary less than average salary
- List name whose salary is greater than department average salary
- Create a view FACULTY from instructor to list only ID, name and dept_name
    - Insert one row FACULTY. Check what happen to instructor table
    - Delete a row from view.
- Inserting in view on join table
    - Create view faculty(a,b,c) as (select ID, name, building from instructor natural join department);
    - What is outcome of “insert into faculty(a,b,c) values ('11113', 'ssss', "Taylor');”
    - What is outcome of “insert into faculty(a,b) values ('11113', 'ssss'); insert into faculty(c) values ('Taylor'); ”