

DBMS

Exercise – 4

Total Points: 10

1. Consider the following employee database.

employee (ID, emp_name, age, street, city)

works (ID, company_name, salary)

company (company_name, city)

Give an expression each in the relational algebra to express the following queries.

- a. Find the name of each employee whose salary is greater than Rs. 1000000. (1 point)
 - b. Find the name of each employee who lives in the city “Hyderabad” and whose salary is less than Rs. 1000000. (1 point)
 - c. Find the ID and name of each employee who does not work for “University of Hyderabad”. (1 point)
 - d. Find the ID and name of each employee who earns at least as much as every employee in the database. (1 point)
2. Setup and start working with MySQL in the lab or through command line of your machine.
For working in the lab machine, follow these steps
 - a. Open terminal in Debian OS (your lab machine)
 - b. run the command
"mysql -u <username> -p"
This command will ask you for a password. Give the password as **ailab**
Here, you are trying to login to mysql with username root
 - c. Create a database with your own userid - "25MCMCXX" with the command, XX is your number
"create database 25MCMCXX"
 3. Now create the employee database tables in your database.
 - a. Ensure all the primary key and foreign key relations while creating the tables. (1 point)
 - b. Populate the tables with at least 5 entries per table. (1 point)
 4. Practice all the all the SQL commands discussed/demonstrated in the slides (Until Slide number 33, “Set Operations - continued”) on this database. (2 points)
Notice that you should have tried all the concepts that are being discussed in the slides, with your own modifications, rather than just copying and pasting the commands.
NB! Have screenshots for all the SQL commands tried
For every concept not demonstrated, there will be a deduction of 0.2 points.
 5. Now in the created employee database, provide the SQL queries for the following.
 - a. Find the name of each employee who lives in the city “Hyderabad”. (1 point)
 - b. Find the name of each employee who lives in the city “Hyderabad” and whose salary is greater than Rs. 1000000. (1 point)

Follow these guidelines while submitting the exercises

1. Put all your answers in a zip file with the file name being your studentid_EX4
2. Put a pdf file with the answers for the questions
3. Do not copy code/answers from internet. If you copy, please leave a comment with the URL from where you got the answers.
4. Organize all your answer files properly
5. Plagiarism will not be tolerated and dealt through the formal channels of the university