

Department of Computer Science and Engineering, Anna University, Chennai- 600025 CS23401 - Database Management Systems (R 2023) Jan - May 2025 Year/Sem/Batch: II/IV/N

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Week: 7

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Revision on SQL DDL, DML, STRINGS, AGGREGATE, JOINS & FUNCTIONS

The following relations keep track of airline flight information:

Flights (FlNo:Integer, from: string, To String, distance: integer, departs: time, arrives: time, price: real)

Aircraft (AID: Integer, aname: string, cruisingrange: integer)

Certified (EID:integer,aid:integer)

Employees (EID:intger, ename: string, salary:integer)

Note that the employee relation describes pilots and other kinds of employees as well; every pilot is certified for some aircraft, and only pilots are certified to fly.

Write each of the following queries in SQL

- 1. Find the names of aircraft such that all pilots certified to operate them to have salaries more than 80, 000.
- 2. Find the AIDs of all aircraft that can be used on routes from India to UK
- 3. Compute the difference between the average salary of pilot and average salary of employees(including pilots)
- 4. Print the name and salary of every non-pilot whose salary is more than the average salary of pilots
- 5. For all aircraft with cruise range over 1000 miles, find the name of the aircraft and the average salary of all pilots certified for that aircraft
- 6. Create a view to store the details of each pilot who is certified for more than three aircraft with a maximum cruiserange of the aircraft that he or she is certified for
- 7. Sort the records in flight relation by ascending order of departure time and Aircraft relation by Aircraft name.
- 8. Show the details of the cheapest flight and the costliest flight
- 9. Save your records permanently as in when needed and display the database.
- 10. Using built-in string function, replace all the aircraft names to a single name display the same, and save it as a temporary update.

- 11. Using the appropriate TCL command display the relation which was updated before Question 11.
- 12. Display the details of employees with Aircraft ID, Aircraft Name, employee ID using join operation.
- 13. Find the average salary of all employees of a particular aircraft.
- 14. Show a list of all employees paired with every flight.
- 15. Find the employees and their assigned aircraft for flights that have a distance greater than 500 miles.
- 16. Find the total price of flights for each aircraft, and display the aircraft's name, the total price of the flights, and the aircraft's cruising range.
- 17. Retrieve a list of employees, the aircraft they are certified to operate, and the details of the flights they are certified to handle, including the flight number, departure time, and price.