

Task 7 (SQL Lab1)

1) Restore (the provided Company DB) then create the following Queries:

1. Display all the employees Data.
 2. Display the employee First name, last name, Salary and Department number.
 3. Display all the projects names, locations and the department which is responsible about it.
 4. If you know that the company policy is to pay an annual commission for each employee with specific percent equals 10% of his/her annual salary .Display each employee full name and his annual commission in an ANNUAL COMM column (alias).
 5. Display the employees Id, name who earns more than 1000 LE monthly.
 6. Display the employees Id, name who earns more than 10000 LE annually.
 7. Display the names and salaries of the female employees
 8. Display each department id, name which managed by a manager with id equals 968574.
 9. Display the ids, names and locations of the projects which controlled with department 10.
 10. Insert your personal data to the employee table as a new employee in department number 30, SSN = 102672, Superssn = 112233, salary=3000.
 11. Insert another employee with personal data your friend as new employee in department number 30, SSN = 102660, but don't enter any value for salary or supervisor number to him.
 12. Upgrade your salary by 20 % of its last value.
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2) University Database – DQL & DML Tasks

1. Display all student records.
 2. Display each student's full name, enrollment date, and current status.
 3. Display each course's title, credits, and its primary department.
 4. Show each student's full name and their GPA as "GPA Score".
 5. List student IDs and names of students with a GPA over 3.5.
 6. List student names who enrolled before 2022.
 7. Display names and ranks of all faculty members in the IT department.
 8. Show the department ID and name managed by faculty ID = 201045.
 9. Display the class ID, course title, and room location for all classes in department 4.
 10. Insert your data as a new student enrolled in program ID 2, student ID = 300045, GPA = 3.6.
 11. Insert your friend's data as another student but leave GPA and advisor NULL.
 12. Increase your GPA by 0.2.
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3) Airline Database – DQL & DML Tasks

1. Display all flight leg records.
2. Display each leg's ID, scheduled departure, and arrival time.
3. Display each airplane's ID, type, and seat capacity.
4. Show each flight leg's ID and the number of available seats as "AvailableSeats".
5. List flight leg IDs where the number of available seats > 100.
6. List airplane IDs with a seat capacity above 300.
7. Display names and phone numbers of customers who booked with "Credit Card".
8. Display airport codes and names where city = 'Cairo'.
9. List flight numbers and departure/arrival times for flights departing from airport 'CAI'.
10. Insert a new flight leg departing from 'CAI' to 'DXB' on 2025-06-10.
11. Insert a customer with no contact number.
12. Update available seats on your inserted flight leg to reduce by 5.

4) Hotel Database – DQL & DML Tasks

1. Display all guests' data.
 2. Show each guest's name, contact number, and proof of ID type.
 3. Display all bookings with booking date, status, and total cost.
 4. Show each room number and its price per night as "NightlyRate".
 5. List guest names who have made bookings above 3000 LE.
 6. Show all rooms priced above 1000 per night.
 7. Display names of staff working as 'Receptionist'.
 8. List the hotel name and ID managed by staff ID = 10022.
 9. List rooms and their types at hotel ID = 5.
 10. Insert yourself as a guest with ID = 9011 and create a booking for room 205.
 11. Insert a friend as a guest with missing contact and proof info.
 12. Update your booking status to 'Confirmed'.
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5) Bank Database – DQL & DML Tasks

1. Display all customer records.
 2. Display customer full name, phone, and membership start date.
 3. Display each loan ID, amount, and type.
 4. Show account number and annual interest (assume 5% of balance) as "AnnualInterest".
 5. List customers who have a loan amount > 100000 LE.
 6. List accounts with balances above 20000.
 7. Show employee names and roles working at branch 'Downtown'.
 8. Display branch ID, name managed by employee ID = 7001.
 9. List all accounts for customer ID = 800003.
 10. Insert yourself as a customer and open an account with balance = 10000.
 11. Insert another customer with NULL values for phone and address.
 12. Increase your account balance by 20%.
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6) Library Database – DQL & DML Tasks

1. Display all book records.
2. Show each book's title, genre, and availability.
3. Display all members' names, email, and membership start date.
4. Display each book's title and price with alias "BookPrice".
5. List books priced above 250 LE.
6. List members who joined before 2023.
7. Display names and roles of staff working in 'Zamalek Branch'.
8. Display branch name managed by staff ID = 3008.
9. List titles and authors of books available in branch ID = 2.
10. Insert yourself as a member with ID = 405 and register to borrow book ID = 1011.
11. Insert a member with NULL email and phone.
12. Update the return date of your loan to today.