

Database Systems

Fall 2020

LAB – 03

The objective of this lab is to:

- ✚ Numeric,
- ✚ Date and Date Conversion
- ✚ Group functions.
- ✚ Revision based queries

Course & Lab Instructor: Sir Asif Sohail

Total Marks: 40

Instructions:

- Work on this lab individually. Discussion is not allowed.
- Evaluation of tasks will be conducted in lab.
- Anyone caught being indulged in the act of plagiarism would be awarded an "F" grade in this lab.
- Evaluation will be considered final and you cannot debate for the marks. So, focus on performing the tasks when the time is given to you.
- **Allowed time: 1 hour and 30 minutes**
- Best of Luck!

Note: You will be using following tables in your lab tasks.

- EMP (EMPNO, ENAME, JOB, SAL, HIREDATE, COMM, MGR, DEPTNO)
- DEPT (DEPTNO, DNAME, LOC)
- PUCIT (STD_NAME)

✚ **Perform the following tasks**

Task 01: **[20 Marks]**

1. Extract the First name, Middle Name, Last Name from the table PUCIT and display in the following format **(4 Marks)**

STD_NAME	First Name	Middle Name	Last Name
Muhammad Usman Khan	Muhammad	Usman	Khan
Hafiz Ghulam Murtaza	Hafiz	Ghulam	Murtaza

Hafiz Mohsin Yaseen

Hafiz

Mohsin

Yaseen

Query:

Screenshot:

2. Display the ename, sal, stars using the EMP table. The stars column should display the ename with trailing stars equal to the number of digits of the sal of the employee.

ENAME	SAL	Asterisk Formatted Str
SMITH	800	SMITH***
ALLEN	1600	ALLEN****

Query:

Screenshot:

3. Display the count of A and T in the ename of employees, and sum of their count.

ENAME	Count Of A's	Count Of J's	Count of A's and J's
SMITH	0	0	0
ALLEN	1	0	1
JAMES	1	1	2

Query:

Screenshot:

4. List all the employees hired in leap years.
(A leap year is exactly divisible by 4 except for century years (years ending with 00). The century year is a leap year only if it is perfectly divisible by 400.)

Query:

Screenshot:

5. Display the names, job and commission of all the employees who are Clerk, Analyst or Salesman. **(Using single condition)**

Query:

Screenshot:

6. Display the employees who joined in the month having at least one 'a' letter in it.

ENAME	HIREDATE	Joining Month
ALLEN	02/20/1981	February
WARD	02/22/1981	February

Query:

Screenshot:

7. Display the first half of the 'ename'. (If the length of ename is odd display half+1)

e.g.; if ename is SMITH then 'First Half Name' is SMI

First Half Name
SMI
ALL

Query:

Screenshot:

8. List the salary of the employee in the following format: (Salary: '\$99,999;') (Hint: using to_char function)

ENAME	Formatted Salary
SMITH	\$800
ALLEN	\$1,600
WARD	\$1,250

Query:

Screenshot:

9. Increase the hiredate of each employee by 3 months and then display the last date of modified date.

(Output should be in the following format)

EMPNO	ENAME	Modified Month	Last Day
7369	SMITH	03/17/1981	03/31/1981
7499	ALLEN	05/20/1981	05/31/1981

Query:

Screenshot:

Task 02: (Group Functions)

[20 Marks]

1. Write a query to display job and the number of people with the same job.

JOB	No. of Employees
CLERK	3
SALESMAN	4

Query:

Screenshot:

2. List down maximum, minimum and average salaries of employees

Query:

Screenshot:

3. Find the average salaries of all jobs excluding manager

Query:

Screenshot:

4. Find the number of the employees in dept 30.

Query:

Screenshot:

5. Show total no. of jobs in each department

Query:

Screenshot:

6. Find the total salary given to job 'Manager'.

Query:

Screenshot:

7. List sum of the salary of employees who was not hired in 1981.

Query:

Screenshot:

8. Write a query to display the next Monday of the current month.

Query:

Screenshot: