IDB Lab Manual Solutions

Lab Task 01

Lab Task 02

Exercise:

1. Create a query to display the name and salary of employees earning more than $2850.
   SELECT ENAME, SAL FROM EMP WHERE SAL>2850
2. Create a query to display the employee name and department number for employee number 7566.
   SELECT ENAME, DEPTNO FROM EMP WHERE DEPTNO=7566
3. Display the employee name, job, and start date of employees hired between February 20, 1981, and May 1, 1981. Order the query in ascending order by start date.
4. Display the employee name and department number of all employees in departments 10 and 30 in alphabetical order by name.
5. Write a query to list the name and salary of employees who earn more than $1500 and are in department 10 or 30. Label the columns Employee and Monthly Salary, respectively.
6. Display the name and hire date of every employee who was hired in 1982.
7. Display the name and job title of all employees who do not have a manager.
8. Display the name, salary, and commission for all employees who earn commissions.
   Sort data in descending order of salary and commissions

Lab Task 03

Exercise:

1. Write a query to display the current date. Label the column Date.
   SELECT SYSDATE FROM DUAL
2. Display the employee number, name, salary, and salary increase by 15% expressed as a whole number. Label the column New Salary.
   SELECT EMPNO, ENAME, SAL,ROUND((SAL+SAL*0.15), 0) AS NEWSALARY FROM EMP
3. Modify your previous query to add a column that will subtract the old salary from the new salary. Label the column Increase. Return your query.
4. SELECT EMPNO, ENAME, SAL,ROUND((SAL+SAL*0.15), 0) AS NEWSALARY, (ROUND((SAL+SAL*0.15), 0) -SAL) AS INCREASE FROM EMP
5. Display the employee's name, hire date, and salary review date, which is the first Monday after six months of service. Label the column REVIEW. Format the dates to appear in the format similar to "Sunday, the Seventh of September, 1981."
   SELECT ENAME, HIREDATE,
   TO_CHAR(NEXT_DAY(ADD_MONTHS(HIREDATE,6),'MONDAY))

AS “SALARY REVIEW DATE” FROM EMP

6. For each employee display the employee name and calculate the number of months between today and the date the employee was hired. Label the column MONTHS_WORKED. Order your results by the number of months employed. Round the number of months up to the closest whole number.
   SELECT ENAME,ROUND((SYSDATE-HIREDATE)/12,0) AS MONTHS_WORKED FROM EMP ORDER BY MONTHS_WORKED
7. Write a query that produces the following for each employee: <employee name> earns <salary> monthly but wants <3 times salary>. Label the column Dream Salaries.
   SELECT ENAME ||' ' ||'EARNS '||SAL||' MONTHLY BUT WAANTS'||' '||SAL*3 AS "DREAM SALARIES" FROM EMP
   Write a query that will display the employee’s name with the first letter capitalized and all other letters lowercase and the length of their name, for all employees whose name starts with J, A M. Give each column an appropriate label.
   SELECT INITCAP(ENAME) AS NAME, LENGTH(ENAME) AS CHARACTERS FROM EMP WHERE ENAME LIKE 'J%' OR ENAME LIKE 'A%' OR ENAME LIKE 'M%'
8. Create a query that will display the employee name and commission amount. If the employee does not earn commission, put “No Commission.” Label the column COMM.
   SELECT ENAME, NVL(COMM,’NO COMMISSION’) AS COMM FROM EMP
9. Create a query that displays the employees’ names and indicates the amounts of their salaries through asterisks. Each asterisk signifies a hundred dollars. Sort the data in descending order of salary. Label the column EMPLOYEE_AND_THEIR_SALARIES.

SELECT ENAME, CONCAT('*',TO_CHAR(SAL,'99,999')) FROM EMP ORDER BY SAL DESC

Lab Task 04

Exercise:

1. Find average, maximum, minimum salary of the employees.
   SELECT AVG(SAL), MAX(SAL), MIN(SAL) FROM EMP
2. Find average, maximum, minimum salary of the employees according to department number.
   SELECT DEPTNO, AVG(SAL), MAX(SAL), MIN(SAL) FROM EMP GROUP BY DEPTNO
3. Find average, maximum, minimum salary of the employees according to job category.
   SELECT JOB, AVG(SAL), MAX(SAL), MIN(SAL) FROM EMP GROUP BY JOB
4. Find the name of lowest paid manager. (Manager is not Job).
   SELECT JOB, MIN(SAL) FROM EMP GROUP BY JOB HAVING JOB='MANAGER'
5. Find the location where maximum number of employee is located
   SELECT COUNT(*) AS NO_OF_EMPLOYEES, EMP.DEPTNO, DEPT.LOC FROM EMP, DEPT WHERE EMP.DEPTNO=DEPT.DEPTNO GROUP BY EMP.DEPTNO, DEPT.LOC ORDER BY NO_OF_EMPLOYEES;
6. Find out job group having highest amount of total salary. (Sal + comm)
   SELECT MAX(SAL+NVL(COMM,0)) AS "TOTAL_SALARY", JOB FROM EMP GROUP BY JOB
7. Suppose you need to know the name and department no. of the employee who earns the highest salary. Write a SQL query to return this information.
   SELECT ENAME, DEPTNO, SAL FROM EMP WHERE SAL IN (SELECT MAX(SAL) FROM EMP)