24/12/2019 SQL Exercise

1. Display details of jobs where the minimum salary is greater than 10000.

*select \* from jobs where min\_salary > 10000;*

1. Display the first name and join date of the employees who joined between 1980 and 1995.

*select first\_name,hire\_date from employees where to\_char(hire\_date, 'YYYY') between 1980 and 1995;*

1. Display first name and join date of the employees who is either IT Programmer or Sales Man.

*select first\_name,hire\_date,department\_name from employees join departments on employees.department\_id=departments.department\_id where department\_name in ('IT','Sales');*

1. Display employees who joined after 1st January 1998.

*select \* from employees where to\_char(hire\_date,'DDMMYYYY')>01011998;*

1. Display details of employee with ID 150 or 160.

*select \* from employees where employee\_id in (150,160);*

1. Display first name, salary, commission pct, and hire date for employees with salary less than 10000.

*select first\_name,salary,commission\_pct,hire\_date from employees where salary<10000;*

1. Display job Title, the difference between minimum and maximum salaries for jobs with max salary in the range 10000 to 20000.

*select job\_title, (max\_salary-min\_salary) from jobs where max\_salary between 10000 and 20000;*

1. Display first name, salary, and round the salary to thousands.

*select first\_name,salary, ROUND(salary,-3) from employees;*

1. Display details of jobs in the descending order of the title.

*select \* from jobs order by job\_title DESC;*

1. Display employees where the first name or last name starts with S.

*select first\_name,last\_name from employees where first\_name like 'S%' or last\_name like 'S%';*

1. Display employees who joined in the month of May.

*select first\_name,last\_name,hire\_date from employees where to\_char(hire\_date,'MM')=05;*

1. Display details of the employees where commission percentage is null and salary in the range 5000 to 10000 and department is 30.

*select \* from employees where commission\_pct is null and salary between 5000 and 10000 and department\_id=30;*

1. Display first name and date of first salary of the employees.

*Select first\_name,hire\_date,LAST\_DAY(hire\_date)+1 from employees;*

1. Display first name and experience of the employees.

*select first\_name,hire\_date,floor((sysdate-hire\_date)/365) as experience from employees;*

1. Display first name of employees who joined in 2001.

*select first\_name from employees where to\_char(hire\_date,'YYYY')=1998;*

1. Display first name and last name after converting the first letter of each name to upper case and the rest to lower case.

*select initcap(first\_name),initcap(last\_name) from employees;*

1. Display the first word in job title.

*select job\_title,SUBSTR(job\_title,1,INSTR(job\_title,' ')-1) from jobs;*

1. Display the length of first name for employees where last name contain character ‘b’ after 3rd position.

*select first\_name,last\_name,length(first\_name) from employees where INSTR(last\_name,'b')>3;*

1. Display first name in upper case and email address in lower case for employees where the first name and email address are same irrespective of the case.

*select UPPER(first\_name),LOWER(email) from employees where UPPER(first\_name)=UPPER(email);*

1. Display employees who joined in the current year.

*select first\_name,last\_name from employees where to\_char(hire\_date,'YYYY')=to\_char(sysdate,'YYYY');*

1. Display the number of days between system date and 1st January 2011.

*select sysdate-to\_date('01-jan-2011') from dual;*

1. Display how many employees joined in each month of the current year.

*select to\_char(hire\_date,'MM'),COUNT(\*) from employees where to\_char(hire\_date,'YYYY')=to\_char(sysdate,'YYYY') group by to\_char(hire\_date,'MM');*

1. Display manager ID and number of employees managed by the manager.

*select manager\_id, COUNT(\*) from employees group by manager\_id;*

1. Display employee ID and the date on which he ended his previous job.

*select employee\_id,max(end\_date) as end\_date from job\_history group by employee\_id;*

1. Display number of employees joined after 15th of the month.

*select hire\_date,count(\*) from employees where to\_char(hire\_date,'DD')>15 group by hire\_date;*

1. Display the country ID and number of cities we have in the country.

*select country\_id,count(city) as cities from locations group by country\_id;*

1. Display average salary of employees in each department who have commission percentage.

*select department\_id,avg(salary) from employees where commission\_pct is not null group by department\_id;*

1. Display job ID, number of employees, sum of salary, and difference between highest salary and lowest salary of the employees of the job.

*select job\_id,count(employee\_id),sum(salary),(max(salary)-min(salary)) from employees group by job\_id;*

1. Display job ID for jobs with average salary more than 10000.

*select job\_id, avg(salary) from employees group by job\_id having avg(salary)>10000;*

1. Display years in which more than 10 employees joined.

*select to\_char(hire\_date,'YYYY'),count(\*) from employees group by to\_char(hire\_date,'YYYY') having count(\*)>10;*

1. Display departments in which more than five employees have commission percentage.

*select department\_id,count(employee\_id) from employees where commission\_pct is not null group by department\_id having count(commission\_pct)>5;*

1. Display employee ID for employees who did more than one job in the past.

*select employee\_id from job\_history group by employee\_id having count(\*)>1;*

1. Display job ID of jobs that were done by more than 3 employees for more than 100 days.

*select job\_id from job\_history where end\_date-start\_date>100 group by job\_id having count(\*)>3;*

1. Display department ID, year, and Number of employees joined.

*select department\_id,to\_char(hire\_date,'YYYY'),count(\*) from employees group by department\_id, to\_char(hire\_date,'YYYY') order by department\_id;*

1. Display departments where any manager is managing more than 5 employees.

*select DISTINCT department\_id, count(\*) from employees group by department\_id,manager\_id having count(employee\_id)>5;*

1. Change salary of employee 115 to 8000 if the existing salary is less than 6000.

*update employees set salary=8000 where employee\_id=115 and salary<6000;*

1. Insert a new employee into employees with all the required details.

*INSERT INTO EMPLOYEES (EMPLOYEE\_ID, FIRST\_NAME, LAST\_NAME, EMAIL, PHONE\_NUMBER, HIRE\_DATE,JOB\_ID, SALARY, DEPARTMENT\_ID)*

*VALUES (207, 'ANGELA', 'SNYDER','ANGELA','215 253 4737', SYSDATE, 'SA\_MAN', 12000, 80);*

1. Delete department 20.

*delete from departments where department\_id=20;*

1. Change job ID of employee 110 to IT\_PROG if the employee belongs to department 10 and the existing job ID does not start with IT.

*update employees set job\_id='IT\_PROG' where employee\_id=110 and department\_id=10 and not job\_id like 'IT%';*

1. Insert a row into departments table with manager ID 120 and location ID in any location ID for city Tokyo.

*INSERT INTO DEPARTMENTS values(280,'SPORTS',120,1200);*

1. Display department name and number of employees in the department.

*select department\_name,count(\*) from employees natural join departments group by department\_name;*

1. Display job title, employee ID, number of days between ending date and starting date for all jobs in department 30 from job history.

*SELECT EMPLOYEE\_ID, JOB\_TITLE, END\_DATE-START\_DATE DAYS*

*FROM JOB\_HISTORY NATURAL JOIN JOBS*

*WHERE DEPARTMENT\_ID=30;*

1. Display department name and manager first name.

*SELECT DEPARTMENT\_NAME, FIRST\_NAME FROM DEPARTMENTS D JOIN EMPLOYEES E ON (D.MANAGER\_ID=E.EMPLOYEE\_ID);*

1. Display department name, manager name, and city.

*SELECT DEPARTMENT\_NAME, FIRST\_NAME, CITY FROM DEPARTMENTS D JOIN EMPLOYEES E ON (D.MANAGER\_ID=E.EMPLOYEE\_ID) JOIN LOCATIONS L USING (LOCATION\_ID);*

1. Display country name, city, and department name.

*SELECT COUNTRY\_NAME, CITY, DEPARTMENT\_NAME*

*FROM COUNTRIES JOIN LOCATIONS USING (COUNTRY\_ID)*

*JOIN DEPARTMENTS USING (LOCATION\_ID);*

1. Display job title, department name, employee last name, starting date for all jobs from 1980 to 1995.

*SELECT JOB\_TITLE, DEPARTMENT\_NAME, LAST\_NAME, START\_DATE*

*FROM JOB\_HISTORY JOIN JOBS USING (JOB\_ID) JOIN DEPARTMENTS*

*USING (DEPARTMENT\_ID) JOIN EMPLOYEES USING (EMPLOYEE\_ID)*

*WHERE TO\_CHAR(START\_DATE,'YYYY') BETWEEN 1980 AND 1995;*

1. Display job title and average salary of employees

*SELECT JOB\_TITLE, AVG(SALARY) FROM EMPLOYEES*

*NATURAL JOIN JOBS GROUP BY JOB\_TITLE;*

1. Display job title, employee name, and the difference between maximum salary for the job and salary of the employee.

*SELECT JOB\_TITLE, FIRST\_NAME, MAX\_SALARY-SALARY DIFFERENCE FROM EMPLOYEES NATURAL JOIN JOBS;*

1. Display last name, job title of employees who have commission percentage and belongs to department 30.

*select last\_name,job\_title from employees natural join jobs where commission\_pct is not null and department\_id=30;*

1. Display details of jobs that were done by any employee who is currently drawing more than 15000 of salary.

*SELECT JH.\**

*FROM JOB\_HISTORY JH JOIN EMPLOYEES E ON (JH.EMPLOYEE\_ID = E.EMPLOYEE\_ID)*

*WHERE SALARY > 15000*