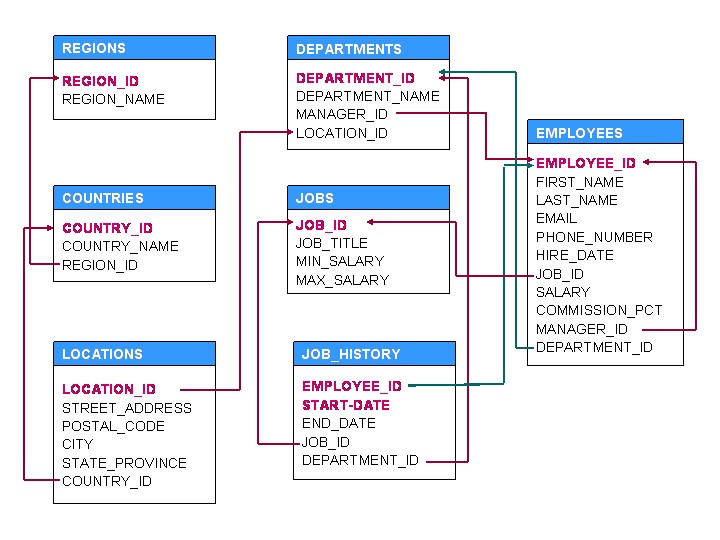
Name: Nakul Sambare

Roll No: 62

Based on the HR schema in Oracle, figure out the queries for the various scenarios given below:



**Note:** Columns in RED color indicate primary key(s).

# Queries

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

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

1. Display the first name and join date of the employees who joined between 2002 and 2005.

SQL> select first\_name,hire\_date from employees where hire\_date between '1-JAN-2002' and '31-DEC-2005';

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

SQL> select e.first\_name,e.hire\_date from employees e,jobs j

2 where j.job\_title in ('Programer','Sales Manager') and e.job\_id=j.job\_id;

1. Display employees who joined after 1st January 2008.

SQL> select \* from employees where hire\_date > '1-Jan-2008';

1. Display details of employee with ID 150 or 160

SQL> 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.

SQL> 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.

SQL> 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.

SQL> select first\_name,round(salary) from employees;

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

SQL> select \* from jobs order by job\_title desc;

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

SQL> select first\_name,last\_name from employees

2 where first\_name like 'S%' or last\_name like 'S%';

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

SQL> select \* from employees where to\_char(hire\_date,'Mon')='May';

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

SQL> select \* from employees

2 where commission\_pct is null and

3 salary between 5000 and 10000 and

4 department\_id=30;

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

SQL> select first\_name,hire\_date+1 as Date\_of\_first\_salary from employees;

1. Display first name and experience of the employees.

SQL> select first\_name,sysdate-hire\_date as Experience from employees;

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

SQL> select first\_name from employees

2 where EXTRACT(YEAR FROM hire\_date)='2001';

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 employee\_id,initcap(first\_name),initcap(last\_name),email,phone\_number,hire\_date,job\_id,salary,commission\_pct,manager\_id,department\_id

2 from employees;

1. Display the first word in job title.

SELECT job\_title, SUBSTR(job\_title,1, INSTR(job\_title, ' ')-1)

2 FROM jobs;

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

SQL> select length(first\_name) ,last\_name

2 from employees

3 where last\_name like '\_\_\_b%';

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.

SQL> select upper(first\_name),lower(email) from

2 employees

3 where first\_name=email;

1. Display employees who joined in the current year.

SQL> select \* from employees

2 where to\_char(hire\_date,'YYYY')=to\_char(SYSDATE,'YYYY');

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

SQL> SELECT sysdate-TO\_date('01/01/2011', 'dd/mm/yyyy') DAYS FROM DUAL;

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

SQL> select count(\*) from employees

2 group by to\_Char(hire\_date,'mon');

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

SQL> select count(manager\_id),manager\_id

2 from employees

3 group by manager\_id;

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

SQL> select employee\_id,hire\_date-1

2 from employees;

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

SQL> select count(\*)

2 from employees

3 where to\_char(hire\_date,'dd')>15;

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

SQL> select count(city),country\_id

2 from locations

3 group by country\_id;

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

SQL> select avg(salary) from employees

2 where commission\_pct is not null

3 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.

SQL> select count(\*),sum(salary),max(salary)-min(salary)

2 from employees;

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

SQL> select job\_id from employees

2 where salary>10000;

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

SQL> select to\_char(hire\_date,'yyyy')

2 from employees

3 group by to\_char(hire\_date,'yyyy')

4 having count(employee\_id) > 10;

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

SQL> select department\_id

2 from employees

3 group by department\_id

4 having count(commission\_pct) > 5;

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

SQL> select employee\_id,count(employee\_id)

2 from job\_history

3 group by employee\_id

4 having count(employee\_id) > 1;

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

SQL> SELECT JOB\_ID FROM JOB\_HISTORY

2 WHERE END\_DATE-START\_DATE > 100

3 GROUP BY JOB\_ID

4 HAVING COUNT(\*)>3

5 ;

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

SQL> select department\_id,to\_char(hire\_date,'yyyy'),count(employee\_id)

2 from employees

3 group by department\_id,to\_char(hire\_date,'yyyy');

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

SQL> select department\_id ,manager\_id from employees

2 group by manager\_id,department\_id

3 having count(manager\_id) > 5;

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

SQL> update employees

2 set salary = 8000

3 where employee\_id=115 and salary < 6000;

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

SQL> insert into employees values(207,'Dwight','Shrute','Dwight','520.147.2222','08-JUL-2021','SA\_REP',15000,.2,124,70);

1. Delete department 20.

SQL> delete from departments

2 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.

SQL> update table employees

2 set job\_id='IT\_PROG'

3 where employee\_id=110;

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

SQL> insert into departments values(120,'Manufacturing',205,1700);

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

SQL> 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.

SQL> select j.job\_title,jh.employee\_id,jh.end\_date-jh.start\_date

2 from jobs j,job\_history jh

3 where j.job\_id=jh.job\_id and department\_id=30;

1. Display department name and manager first name.

SQL> select e.first\_name,d.department\_name

2 from employees e ,departments d

3 where e.department\_id=d.department\_id and e.manager\_id=d.manager\_id;

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

SQL> select d.department\_name,e.first\_name,l.city

2 from employees e,locations l,departments d

3 where e.department\_id=d.department\_id and d.location\_id=l.location\_id and d.manager\_id=e.employee\_id;

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

SQL> select c.country\_name,l.city,d.department\_name

2 from countries c,locations l,departments d

3 where d.location\_id=l.location\_id and l.country\_id=c.country\_id;

1. Display job title, department name, employee last name, starting date for all jobs from 2000 to 2005.

SQL> select j.job\_title,d.department\_name,e.last\_name,e.hire\_date

2 from employees e,departments d,jobs j

3 where j.job\_id=e.job\_id and e.department\_id=d.department\_id and to\_char(e.hire\_date,'yyyy') between 2000 and 2005;

1. Display job title and average salary of employees

SQL> select avg(e.salary) ,j.job\_title

2 from employees e,jobs j

3 where e.job\_id=j.job\_id

4 group by j.job\_title;

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

SQL> select j.job\_title,e.first\_name,e.last\_name,j.max\_salary-e.salary

2 from employees e,jobs j

3 where e.job\_id=j.job\_id;

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

SQL> select e.last\_name,j.job\_title

2 from employees e,jobs j

3 where e.job\_id=j.job\_id and e.commission\_pct is not null and e.department\_id=30;

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

SQL> select e.first\_name,e.last\_name ,j.job\_id

2 from employees e,job\_history j

3 where e.salary > 15000 and e.department\_id=j.department\_id;

1. Display department name, manager name, and salary of the manager for all managers whose experience is more than 5 years.

SQL> select d.department\_name,e.first\_name,e.salary

2 from departments d,employees e

3 where d.manager\_id=e.manager\_id and (SYSDATE-e.HIRE\_DATE) / 365 > 5;

1. Display employee name if the employee joined before his manager.

SQL> select e.first\_name from employees e,employees e2

2 where e.employee\_id=e2.manager\_id and e.hire\_date > e2.hire\_date;

1. Display employee name, job title for the jobs employee did in the past where the job was done less than six months.

SQL> SELECT FIRST\_NAME, JOB\_TITLE FROM EMPLOYEES E JOIN JOB\_HISTORY JH ON (JH.EMPLOYEE\_ID = E.EMPLOYEE\_ID) JOIN JOBS J ON( JH.JOB\_ID = J.JOB\_ID)

2 WHERE MONTHS\_BETWEEN(END\_DATE,START\_DATE) < 6

3 ;

1. Display employee name and country in which he is working.

SQL> select e.first\_name,e.last\_name,c.country\_name

2 from employees e,departments d,locations l,countries c

3 where e.department\_id=d.department\_id and d.location\_id=l.location\_id and l.country\_id=c.country\_id;

1. Display department name, average salary and number of employees with commission within the department.

SQL> select d.department\_name,avg(e.salary),count(\*)

2 from employees e,departments d

3 where e.department\_id=d.department\_id and commission\_pct is not null

4 group by d.department\_name;

1. Display details of departments managed by ‘Smith’.

SQL> select \* from departments

2 where manager\_id in(select employee\_id from employees where first\_name='Smith');

1. Display jobs into which employees joined in the current year.

SQL> select \* from jobs

2 where job\_id in(select job\_id from employees where to\_char(hire\_date,'yyyy')=to\_char(sysdate,'yyyy'));

1. Display employees who did not do any job in the past.

SQL> select \* from employees

2 where job\_id not in(select job\_id from job\_history);

1. Display job title and average salary for employees who did a job in the past.

SQL> select j.job\_title,avg(e.salary) from employees e,jobs j

2 where j.job\_id=e.job\_id and j.job\_id in (select job\_id from job\_history)

3 group by j.job\_title;

1. Display country name, city, and number of departments where department has more than 5 employees.

SQL> SELECT COUNTRY\_NAME, CITY, COUNT(DEPARTMENT\_ID)

2 FROM COUNTRIES JOIN LOCATIONS USING (COUNTRY\_ID) JOIN DEPARTMENTS USING (LOCATION\_ID)

3 WHERE DEPARTMENT\_ID IN

4 (SELECT DEPARTMENT\_ID FROM EMPLOYEES

5 GROUP BY DEPARTMENT\_ID

6 HAVING COUNT(DEPARTMENT\_ID)>5)

7 GROUP BY COUNTRY\_NAME, CITY;

1. Display details of manager who manages more than 5 employees.

SQL> select first\_name

2 from employees

3 where employee\_id in (select manager\_id from employees group by manager\_id having count(manager\_id) > 5);

1. Display employee name, job title, start date, and end date of past jobs of all employees with commission percentage null.

SQL> select e.first\_name,e.last\_name,j.job\_title,jh.start\_date,jh.end\_date

2 from employees e,jobs j,job\_history jh

3 where e.employee\_id=jh.employee\_id and j.job\_id=jh.job\_id and e.commission\_pct is null;

1. Display the departments into which no employee joined in last two years.

SQL> select d.department\_name from employees e,departments d

2 where e.department\_id = d.department\_id and e.hire\_date > sysdate-2;

1. Display the details of departments in which the max salary is greater than 10000 for employees who did a job in the past.

SQL> SELECT \* FROM DEPARTMENTS

2 WHERE DEPARTMENT\_ID IN

3 (SELECT DEPARTMENT\_ID FROM EMPLOYEES

4 WHERE EMPLOYEE\_ID IN (SELECT EMPLOYEE\_ID FROM JOB\_HISTORY)

5 GROUP BY DEPARTMENT\_ID

6 HAVING MAX(SALARY) >10000)

7 ;

1. Display details of current job for employees who worked as IT Programmers in the past. Desc job\_history;

SQL> SELECT \* FROM JOBS

2 WHERE JOB\_ID IN

3 (SELECT JOB\_ID FROM EMPLOYEES WHERE EMPLOYEE\_ID IN

4 (SELECT EMPLOYEE\_ID FROM JOB\_HISTORY WHERE JOB\_ID='IT\_PROG'))

5 ;

1. Display the details of employees drawing the highest salary in the department.

SQL> select first\_name,job\_id,salary

2 from employees e

3 where salary=(select max(salary) from employees where department\_id=e.department\_id);

1. Display the city of employee whose employee ID is 105.

SQL> select l.city,e.first\_name,e.employee\_id

2 from employees e,departments d,locations l

3 where e.department\_id=d.department\_id and d.location\_id=l.location\_id and e.employee\_id=105;

1. Display third highest salary of all employees

SQL> select salary

2 from employees main

3 where 2 = (select count( distinct salary )

4 from employees

5 where salary > main.salary)

6 ;