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

```
SELECT DEPARTMENT_NAME, COUNT(*) FROM EMPLOYEES NATURAL JOIN
DEPARTMENTS GROUP BY DEPARTMENT_NAME
```

2. 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
```

3. 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)
```

4. 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)
```

5. 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)
```

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

```
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 2000 AND 2005
```

7. Display job title and average salary of employees

```
SELECT JOB_TITLE, AVG(SALARY) FROM EMPLOYEES
NATURAL JOIN JOBS GROUP BY JOB_TITLE
```

8. 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
```

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

```
SELECT JOB_TITLE, FIRST_NAME, MAX_SALARY-SALARY DIFFERENCE FROM
EMPLOYEES NATURAL JOIN JOBS WHERE DEPARTMENT_ID  = 30
```

10. 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
```

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

```
SELECT DEPARTMENT_NAME, FIRST_NAME, SALARY
FROM DEPARTMENTS D JOIN EMPLOYEES E ON
(D.MANAGER_ID=E.MANAGER_ID)
WHERE  (SYSDATE-HIRE_DATE) / 365 > 5
```

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

```
SELECT FIRST_NAME FROM  EMPLOYEES E1 JOIN EMPLOYEES E2 ON
(E1.MANAGER_ID=E2.EMPLOYEE_ID)
WHERE E1.HIRE_DATE < E2.HIRE_DATE
```

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

```
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)
WHERE  MONTHS_BETWEEN(END_DATE,START_DATE)  < 6
```

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

```
SELECT FIRST_NAME, COUNTRY_NAME FROM EMPLOYEES JOIN DEPARTMENTS
USING(DEPARTMENT_ID)
JOIN LOCATIONS USING( LOCATION_ID)
JOIN COUNTRIES USING ( COUNTRY_ID)
```

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

```
SELECT DEPARTMENT_NAME, AVG(SALARY), COUNT(COMMISSION_PCT)
FROM DEPARTMENTS JOIN EMPLOYEES USING (DEPARTMENT_ID)
GROUP BY DEPARTMENT_NAME
```

16. Display the month in which more than 5 employees joined in any department located in Sydney.

```
SELECT TO_CHAR(HIRE_DATE,'MON-YY')
FROM EMPLOYEES JOIN DEPARTMENTS USING (DEPARTMENT_ID) JOIN
LOCATIONS USING (LOCATION_ID)
WHERE  CITY = 'Seattle'
GROUP BY TO_CHAR(HIRE_DATE,'MON-YY')
HAVING COUNT(*) > 5
```

17. Display details of departments in which the maximum salary is more than 10000.

```
SELECT * FROM DEPARTMENTS WHERE DEPARTMENT_ID IN
( SELECT DEPARTMENT_ID FROM EMPLOYEES
  GROUP BY DEPARTMENT_ID
  HAVING MAX(SALARY)>10000)
```

18. Display details of departments managed by 'Smith'.

```
SELECT * FROM DEPARTMENTS WHERE MANAGER_ID IN
  (SELECT EMPLOYEE_ID FROM EMPLOYEES WHERE FIRST_NAME='SMITH')
```

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

```
SELECT * FROM JOBS WHERE JOB_ID IN
       (SELECT JOB_ID FROM EMPLOYEES WHERE
TO_CHAR(HIRE_DATE,'YYYY')=TO_CHAR(SYSDATE,'YYYY'))
```

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

```
SELECT * FROM EMPLOYEES WHERE EMPLOYEE_ID NOT IN
       (SELECT EMPLOYEE_ID FROM JOB_HISTORY)
```

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

```
SELECT JOB_TITLE, AVG(SALARY) FROM JOBS NATURAL JOIN EMPLOYEES
GROUP BY JOB_TITLE
```

```
WHERE EMPLOYEE_ID IN
    (SELECT EMPLOYEE_ID FROM JOB_HISTORY)
```

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

```
SELECT COUNTRY_NAME, CITY, COUNT(DEPARTMENT_ID)
FROM COUNTRIES JOIN LOCATIONS USING (COUNTRY_ID) JOIN DEPARTMENTS
USING (LOCATION_ID)
WHERE DEPARTMENT_ID IN
    (SELECT DEPARTMENT_ID FROM EMPLOYEES
   GROUP BY DEPARTMENT_ID
   HAVING COUNT(DEPARTMENT_ID)>5)
GROUP BY COUNTRY_NAME, CITY;
```

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

```
SELECT FIRST_NAME FROM EMPLOYEES
WHERE EMPLOYEE_ID IN
(SELECT MANAGER_ID FROM EMPLOYEES
 GROUP BY MANAGER_ID
 HAVING COUNT(*)>5)
```

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

```
SELECT FIRST_NAME, JOB_TITLE, START_DATE, END_DATE
FROM JOB_HISTORY JH JOIN JOBS J USING (JOB_ID) JOIN EMPLOYEES E
ON ( JH.EMPLOYEE_ID = E.EMPLOYEE_ID)
WHERE COMMISSION_PCT IS NULL
```

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

```
SELECT  * FROM DEPARTMENTS
WHERE DEPARTMENT_ID NOT IN
( SELECT DEPARTMENT_ID FROM EMPLOYEES WHERE FLOOR((SYSDATE-
HIRE_DATE)/365) < 2)
```

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

```
SELECT * FROM DEPARTMENTS
WHERE DEPARTMENT_ID IN
(SELECT DEPARTMENT_ID FROM EMPLOYEES
```

```
 WHERE EMPLOYEE_ID IN (SELECT EMPLOYEE_ID FROM JOB_HISTORY)
 GROUP BY DEPARTMENT_ID
 HAVING MAX(SALARY) >10000)
```

27. Display details of current job for employees who worked as IT Programmers in the past.

```
SELECT * FROM JOBS
WHERE JOB_ID IN
 (SELECT JOB_ID FROM EMPLOYEES WHERE EMPLOYEE_ID IN
        (SELECT EMPLOYEE_ID FROM JOB_HISTORY WHERE
JOB_ID='IT_PROG'))
```

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

```
SELECT DEPARTMENT_ID,FIRST_NAME, SALARY FROM EMPLOYEES OUTER
WHERE SALARY =
    (SELECT MAX(SALARY) FROM EMPLOYEES WHERE DEPARTMENT_ID =
OUTER.DEPARTMENT_ID)
```

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

```
SELECT CITY FROM LOCATIONS WHERE LOCATION_ID =
    (SELECT LOCATION_ID FROM DEPARTMENTS WHERE DEPARTMENT_ID =
                (SELECT DEPARTMENT_ID FROM EMPLOYEES WHERE
EMPLOYEE_ID=105)
  )
```

30. Display third highest salary of all employees

```
select salary
from employees main
where  2 = (select count( distinct salary )
            from employees
            where  salary > main.salary)
```