

# Lab Assignment-05

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QUES : Insert the values in the EMP table and run the following queries.

1. List the emps those are having five characters in their names.
2. List the emps those are having four chars and third char must be 'r'
3. List the emps whose names having a character set 'll' together
4. List the empno, ename, sal, dname, loc, deptno, job of all emps
5. working at CHICAGO or working for ACCOUNTING dept wit ann sal > 28000, but the sal should not be = 3000 or 2800 who doesn't belongs to the Mgr and whose no is having a digit '7' or '8' in 3rd position in the asc order of deptno and desc order of job.
6. List the dept details where at least two emps are working.
7. Display dname, grade, no of emps where atleast two emps are 'CLERKS'
8. List the no of emps in each dept where the number is more than 3.
9. List the names of depts. Where at least 3 emps are working in each dept.
10. List first 50% of chars of ename in lower case and remaining are upper case.
11. List the emps whose 10% of sal is equal to year of Joining List the emps whose first 2 chars from hiredate = last 2 chars of salary.
12. List the emps whose deptno is available in his salary.
13. List the emps who joined in the month of 'DEC'
14. List the enames who are retiring after '31-DEC-89' the max job period is 20Y.
15. List the emps whose sal contain 3 digits

SOLUTION:

Table Creation:

(EMPLOYEES TABLE)

```
SQL> create table employees(employee_id number(6) not null, first_name
varchar2(20),last_name varchar2(20) not null, email varchar2(25) not null, phone_number
varchar2(20), hire_date date not null, job_id varchar2(10) not null, salary number(8,2),
commission_pct number(2,2), manager_id number(6), department_id number(4));
```

(DEPARTMENTS TABLE)

```
SQL> create table departments(department_id number(4) not null, department_name
varchar2(30) not null, manager_Id number(6), location_id number );
```

Data Insertion:

(EMPLOYEES TABLE)

```
SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(100, 'STEVEN', 'King',
'SKING', '515.123.4567', '17-JUN-87', 'AD_PRES', 24000, 90);
```

```
SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(101, 'Neena', 'Kochhar',
'NKOCHHAR', '515.123.4568', '21-SEP-89', 'AD_VP', 17000, 100, 90);
```

```
SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(102, 'Lex', 'De Haan',
'LDEHAAN', '515.123.4569', '13-JAN-93', 'AD_VP', 17000, 100, 90);

SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(103, 'Alexander', 'Hunold',
'AHUNOLD', '590.423.4567', '03-JAN-90', 'IT_PROG', 9000, 102, 60);

SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(104, 'Bruce', 'Ernst',
'BERNST', '590.423.4568', '21-MAY-91', 'IT_PROG', 6000, 103, 60);

SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(107, 'Diana', 'Lorentz',
'DLORENTZ', '590.423.5567', '07-FEB-99', 'IT_PROG', 4200, 103, 60);

SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(124, 'Kevin', 'Mourgos',
'KMOURGOS', '650.123.5234', '16-NOV-99', 'ST_MAN', 5800, 100, 50);

SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(141, 'Trenna', 'Rajs',
'TRAJS', '650.121.8009', '17-OCT-95', 'ST_CLERK', 3500, 124, 50);

SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(142, 'Curtis', 'Davies',
'CDAVIES', '650.121.2994', '29-JAN-97', 'ST_CLERK', 3100, 124, 50);

SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(143, 'Randall', 'Matos',
'RMATOS', '650.121.2874', '15-MAR-98', 'ST_CLERK', 2600, 124, 50);

SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(144, 'Peter', 'Vargas',
'PVARGAS', '650.212.2004', '09-JUL-98', '2500', 124, 50, 50);

SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(149, 'Eleni', 'Zlotkey',
'EZLOTKEY', '011.44.1344.429018', '29-JAN-00', 'SA_MAN', 10500, 100, 80);

SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(174, 'Ellen', 'Abel',
'EABEL', '011.44.1644.429267', '11-MAY-96', 'SA_REP', 11000, 149, 80);

SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(176, 'Jonathon', 'Taylor',
'JTAYLOR', '011.44.1644.429265', '24-MAY-98', 'SA_REP', 8600, 149, 80);
```

```
SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, COMMISSION_PCT, MANAGER_ID) VALUES(178, 'Kimberely', 'Grant',
'KGRANT', '011.44.1644.429263', '24-MAY-99', 'SA_REP', 7000, .15, 149);
```

```
SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(200, 'Jennifer', 'Whalen',
'JWHALEN', '515.123.4444', '17-SEP-87', 'AD_ASST', 4400, 101, 10);
```

```
SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(201, 'Michael', 'Hartstein',
'MHARTSTE', '515.123.5555', '17-FEB-96', 'MK_MAN', 13000, 100, 20);
```

```
SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(202, 'Pat', 'Fay', 'PFAY',
'603.123.6666', '17-AUG-97', 'MK_REP', 6000, 201, 20);
```

```
SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(205, 'Shelley', 'Higgins',
'SHIGGINS', '515.123.8080', '07-JUN-94', 'AC_MGR', 12000, 101, 110);
```

```
SQL> INSERT INTO EMPLOYEES(EMPLOYEE_ID, FIRST_NAME, LAST_NAME, EMAIL, PHONE_NUMBER,
HIRE_DATE, JOB_ID, SALARY, MANAGER_ID, DEPARTMENT_ID) VALUES(206, 'William', 'Gietz',
'WGIEZT', '515.123.8181', '07-JUN-94', 'AC_ACCOUNT', 8300, 205, 110);
```

```
SQL> UPDATE EMPLOYEES SET COMMISSION_PCT=.2 WHERE EMPLOYEE_ID=149;
```

```
SQL> UPDATE EMPLOYEES SET COMMISSION_PCT=.3 WHERE EMPLOYEE_ID=174;
```

```
SQL> UPDATE EMPLOYEES SET COMMISSION_PCT=.2 WHERE EMPLOYEE_ID=176;
```

```
SQL> UPDATE EMPLOYEES SET COMMISSION_PCT=.15 WHERE EMPLOYEE_ID=178;
```

```
SQL> select * from employees;
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
100	STEVEN	King	SKING	515.123.4567	17-JUN-87	AD_PRES	24000			90
101	Neena	Kochhar	NKOCHHAR	515.123.4568	21-SEP-89	AD_VP	17000		100	90
102	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-93	AD_VP	17000		100	90
103	Alexander	Hunold	AHUNOLD	590.423.4567	03-JAN-90	IT_PROG	9000		102	60
104	Bruce	Ernst	BERNST	590.423.4568	21-MAY-91	IT_PROG	6000		103	60
107	Diana	Lorentz	DLORENTZ	590.423.5567	07-FEB-99	IT_PROG	4200		103	60
124	Kevin	Mourgos	KMOURGOS	650.123.5234	16-NOV-99	ST_MAN	5800		100	50
141	Trenna	Rajs	TRAJS	650.121.8009	17-OCT-95	ST_CLERK	3500		124	50
142	Curtis	Davies	CDAVIES	650.121.2994	29-JAN-97	ST_CLERK	3100		124	50
143	Randall	Matos	RMATOS	650.121.2874	15-MAR-98	ST_CLERK	2600		124	50
144	Peter	Vargas	PVARGAS	650.212.2004	09-JUL-98	2500	124		50	50
149	Eleni	Zlotkey	EZLOTKEY	011.44.1344.429018	29-JAN-00	SA_MAN	10500	.2	100	80
174	Ellen	Abel	EABEL	011.44.1644.429267	11-MAY-96	SA_REP	11000	.3	149	80
176	Jonathon	Taylor	JTAYLOR	011.44.1644.429265	24-MAY-98	SA_REP	8600	.2	149	80
178	Kimberely	Grant	KGRANT	011.44.1644.429263	24-MAY-99	SA_REP	7000	.15	149	
200	Jennifer	Whalen	JWHALEN	515.123.4444	17-SEP-87	AD_ASST	4400		101	10
201	Michael	Hartstein	MHARTSTE	515.123.5555	17-FEB-96	MK_MAN	13000		100	20
202	Pat	Fay	PFAY	603.123.6666	17-AUG-97	MK_REP	6000		201	20
205	Shelley	Higgins	SHIGGINS	515.123.8080	07-JUN-94	AC_MGR	12000		101	110
206	William	Gietz	WGIEZT	515.123.8181	07-JUN-94	AC_ACCOUNT	8300		205	110

(DEPARTMENTS TABLE)

```
SQL> insert into departments values(10, 'Admisistrarion', 200,1700);
```

```
SQL> insert into departments values(20, 'Marketing', 201,1800);
```

```
SQL> insert into departments values(50, 'Shipping', 124,1500);
```

```
SQL> insert into departments values(60, 'IT', 103,1400);
```

```
SQL> insert into departments values(80, 'Sales', 149,2500);
```

```
SQL> insert into departments values(90, 'Executive', 100,1700);
```

```
SQL> insert into departments values(110, 'Accounting', 205,1700);
SQL> insert into departments (department_id, department_name, location_id) values(190,
'Contracting', 1700);
```

```
SQL> select * from departments;

DEPARTMENT_ID DEPARTMENT_NAME      MANAGER_ID LOCATION_ID
-----
          10 Admisistrarion           200         1700
          20 Marketing                201         1800
          50 Shipping                 124         1500
          60 IT                       103         1400
          80 Sales                    149         2500
          90 Executive                100         1700
         110 Accounting               205         1700
         190 Contracting              1700
```

8 rows selected.

List the emps those are having five characters in their names.

```
SQL> SELECT * FROM employees WHERE length(first_name) = 5;
```

```
SQL> SELECT * FROM employees WHERE length(first_name) = 5;

EMPLOYEE_ID FIRST_NAME      LAST_NAME      EMAIL      PHONE_NUMBER      HIRE_DATE JOB_ID      SALARY COMMISSION_PCT MANAGER_ID DEPARTMENT_ID
-----
          101 Neena          Kochhar        NKOCHHAR        515.123.4568      21-SEP-89 AD_VP      17000           100           90
          104 Bruce          Ernst          BERNST          590.423.4568      21-MAY-91 IT_PROG      6000           103           60
          107 Diana          Lorentz        DLORENTZ        590.423.5567      07-FEB-99 IT_PROG      4200           103           60
          124 Kevin          Mourgos        KMOURGOS        650.123.5234      16-NOV-99 ST_MAN      5800           100           50
          144 Peter          Vargas        PVARGAS        650.212.2004      09-JUL-98 2500           124           50
          149 Eleni          Zlotkey        EZLOTKEY        011.44.1344.429018 29-JAN-00 SA_MAN      10500           .2           100           80
          174 Ellen          Abel          EABEL          011.44.1644.429267 11-MAY-96 SA_REP      11000           .3           149           80
```

7 rows selected.

List the emps those are having four chars and third char must be 'r'

```
SQL> SELECT * FROM employees WHERE length(first_name) = 5 and last_name like '__r%';
```

```
SQL> SELECT * FROM employees WHERE length(first_name) = 5 and last_name like '__r%';

EMPLOYEE_ID FIRST_NAME      LAST_NAME      EMAIL      PHONE_NUMBER      HIRE_DATE JOB_ID      SALARY COMMISSION_PCT MANAGER_ID DEPARTMENT_ID
-----
          107 Diana          Lorentz        DLORENTZ        590.423.5567      07-FEB-99 IT_PROG      4200           103           60
          144 Peter          Vargas        PVARGAS        650.212.2004      09-JUL-98 2500           124           50
```

List the emps whose names having a character set 'll' together.

```
SQL> SELECT * FROM employees where first_name LIKE '%ll%';
```

```
SQL> SELECT * FROM employees where first_name LIKE '%ll%';

EMPLOYEE_ID FIRST_NAME      LAST_NAME      EMAIL      PHONE_NUMBER      HIRE_DATE JOB_ID      SALARY COMMISSION_PCT MANAGER_ID DEPARTMENT_ID
-----
          143 Randall          Matos          RMATOS          650.121.2874      15-MAR-98 ST_CLERK      2600           124           50
          174 Ellen          Abel          EABEL          011.44.1644.429267 11-MAY-96 SA_REP      11000           .3           149           80
          205 Shelley          Higgins        SHIGGINS        515.123.8080      07-JUN-94 AC_MGR      12000           101           110
          206 William          Gietz          WGIETZ          515.123.8181      07-JUN-94 AC_ACCOUNT      8300           205           110
```

List the empno, ename, sal, dname, loc, deptno, job of all emps working at CHICAGO or working for ACCOUNTING dept wit ann sal > 28000, but the sal should not be = 3000 or 2800 who doesn't belongs to the Mgr and whose no is having a digit '7' or '8' in 3rd position in the asc order of deptno and desc order of job.

```
SQL> select E.employee_id, E.first_name, E.last_name, E.salary, E.department_id,
D.department_name, D.location_id, E.job_id from employees E, departments D where
(D.location_id = 1500 or D.department_name = 'ACCOUNTING') and E.department_id =
```

D.department\_id and E.employee\_id in (select E.employee\_id from employees E where (12\*E.salary) > 28000 and E.salary not in (3000,2800) and E.job\_id !='MANAGER' and ( E.employee\_id like '\_\_7%' or E.employee\_id like '\_\_8%')) order by E.department\_id asc, E.job\_id desc;

```
SQL> select E.employee_id, E.first_name, E.last_name, E.salary, E.department_id, D.department_name, D.location_id, E.job_id from employees E, departments D where (D.location_id = 1500 or D.department_name = 'ACCOUNTING') and E.department_id = D.department_id and E.employee_id in (select E.employee_id from employees E where (12*E.salary) > 28000 and E.salary not in (3000,2800) and E.job_id !='MANAGER' and ( E.employee_id like '__7%' or E.employee_id like '__8%')) order by E.department_id asc, E.job_id desc;

no rows selected
```

List the dept details where at least two emps are working.

SQL> select department\_id ,count(\*) from employees group by department\_id having count(\*) >= 2;

```
SQL> select department_id ,count(*) from employees group by department_id having count(*) >= 2;
```

DEPARTMENT_ID	COUNT(*)
90	3
20	2
110	2
50	5
80	3
60	3

6 rows selected.

Display dname, grade, no of emps where atleast two emps are 'CLERKS'

SQL> select d.department\_name, j.grade\_level,count(\*) from employees e, departments d, job\_grades j, jobs b where e.department\_id = d.department\_id and b.job\_title = 'CLERK' and e.salary between b.min\_salary and b.max\_salary group by d.department\_name, j.grade\_level having count(\*) >= 2;

```
SQL> select d.department_name, j.grade_level,count(*) from employees e, departments d, job_grades j, jobs b where e.department_id = d.department_id and b.job_title = 'CLERK' and e.salary between b.min_salary and b.max_salary group by d.department_name, j.grade_level having count(*) >= 2;

no rows selected
```

List the no of emps in each dept where the number is more than 3.

SQL> select department\_id,count(\*) from employees group by department\_id having count(\*) > 3;

```
SQL> select department_id,count(*) from employees group by department_id having count(*) > 3;
```

DEPARTMENT_ID	COUNT(*)
50	5

List the names of depts. Where at least 3 emps are working in each dept.

SQL> select d.department\_name,count(\*) from employees e, departments d where e.department\_id = d.department\_id group by d.department\_name having count(\*) >= 3;



```
SQL> select d.department_name,count(*) from employees e, departments d where e.department_id = d.department_id group by d.department_name having count(*) <= 3;
```

DEPARTMENT_NAME	COUNT(*)
Accounting	2
Executive	3
IT	3
Sales	3
Marketing	2
Admisistrarion	1

6 rows selected.

List first 50% of chars of ename in lower case and remaining are upper case.

```
SQL> select lower( substr(first_name, 1, round(length(first_name)/2) ) ) || substr(first_name, round( length(first_name)/2) + 1, length(first_name) ) from employees;
```

```
SQL> select lower( substr(first_name, 1, round(length(first_name)/2) ) ) || substr(first_name, round( length(first_name)/2) + 1, length(first_name) ) from employees;
```

LOWER(SUBSTR(FIRST_NAME,1,ROUND(LENGTH(FIRST_NAME)/2)))  SUBSTR(FIRST_NAME,ROUND(LENGTH(FIRST_NAME)/2)+1,LENGTH(FIRST_NAME))
steVEN
neena
lex
alexander
bruce
diana
kevin
trenna
curtis
randall
peter
elena
ellen
jonathon
kimberely
jennifer
michael
pat
shelley
william

20 rows selected.

List the emps whose 10% of sal is equal to year of Joining List the emps whose first 2 chars from hiredate = last 2 chars of salary.

```
SQL> select * from employees where substr(hire_date,1,2) = substr(salary, length(salary)-1, length(salary));
```

```
SQL> select * from employees where substr(hire_date,1,2) = substr(salary, length(salary)-1, length(salary));
```

no rows selected

List the emps whose deptno is available in his salary.

```
SQL> select * from employees where instr(salary,department_id) > 0;
```

```
SQL> select * from employees where instr(salary,department_id) > 0;
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
104	Bruce	Ernst	BERNST	590.423.4568	21-MAY-91	IT_PROG	6000		103	60
141	Trenna	Rajs	TRAJS	650.121.8009	17-OCT-95	ST_CLERK	3500		124	50

List the emps who joined in the month of 'DEC'.

```
SQL> select * from employees where to_char(hire_date,'MONTH') like 'DEC%';
```

```
SQL> select * from employees where to_char(hire_date,'MONTH') like 'DEC%';

no rows selected
```

List the enames who are retiring after '31-DEC-89' the max job period is 20Y.

```
SQL> select first_name,last_name from employees where add_months(hire_date, 240) >
to_date('31-DEC-89', 'DD-MON-RR');
```

```
SQL> select first_name,last_name from employees where add_months(hire_date, 240) > to_date('31-DEC-89', 'DD-MON-RR');
```

FIRST_NAME	LAST_NAME
STEVEN	King
Neena	Kochhar
Lex	De Haan
Alexander	Hunold
Bruce	Ernst
Diana	Lorentz
Kevin	Moungos
Trenna	Rajs
Curtis	Davies
Randall	Matos
Peter	Vargas
Eleni	Zlotkey
Ellen	Abel
Jonathon	Taylor
Kimberely	Grant
Jennifer	Whalen
Michael	Hartstein
Pat	Fay
Shelley	Higgins
William	Gietz

```
20 rows selected.
```

List the emps whose sal contain 3 digits.

```
SQL> select * from employees where length(salary) = 3;
```

```
SQL> select * from employees where length(salary) = 3;
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
144	Peter	Vargas	PVARGAS	650.212.2004	09-JUL-98	2500	124		50	50