

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

## ASSIGNMENT 1

**Que 1** - Select all information from Salgrade table.

```
SQL> select * from emp;
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800		20
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7788	SCOTT	ANALYST	7566	19-APR-87	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000		10
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	23-MAY-87	1100		20
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7902	FORD	ANALYST	7566	03-DEC-81	3000		20
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

14 rows selected.

```
SQL> select * from salgrade;
```

GRADE	LOSAL	HISAL
1	700	1200
3	1401	2000
4	2001	3000
5	3001	9999

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que2-** Select all information from emp table.

```
Select SQL Plus
SQL> select * from emp;
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7369	SMITH	CLERK	7902	17-DEC-80	800		20
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10
7788	SCOTT	ANALYST	7566	19-APR-87	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000		10
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	23-MAY-87	1100		20
7900	JAMES	CLERK	7698	03-DEC-81	950		30
7902	FORD	ANALYST	7566	03-DEC-81	3000		20
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

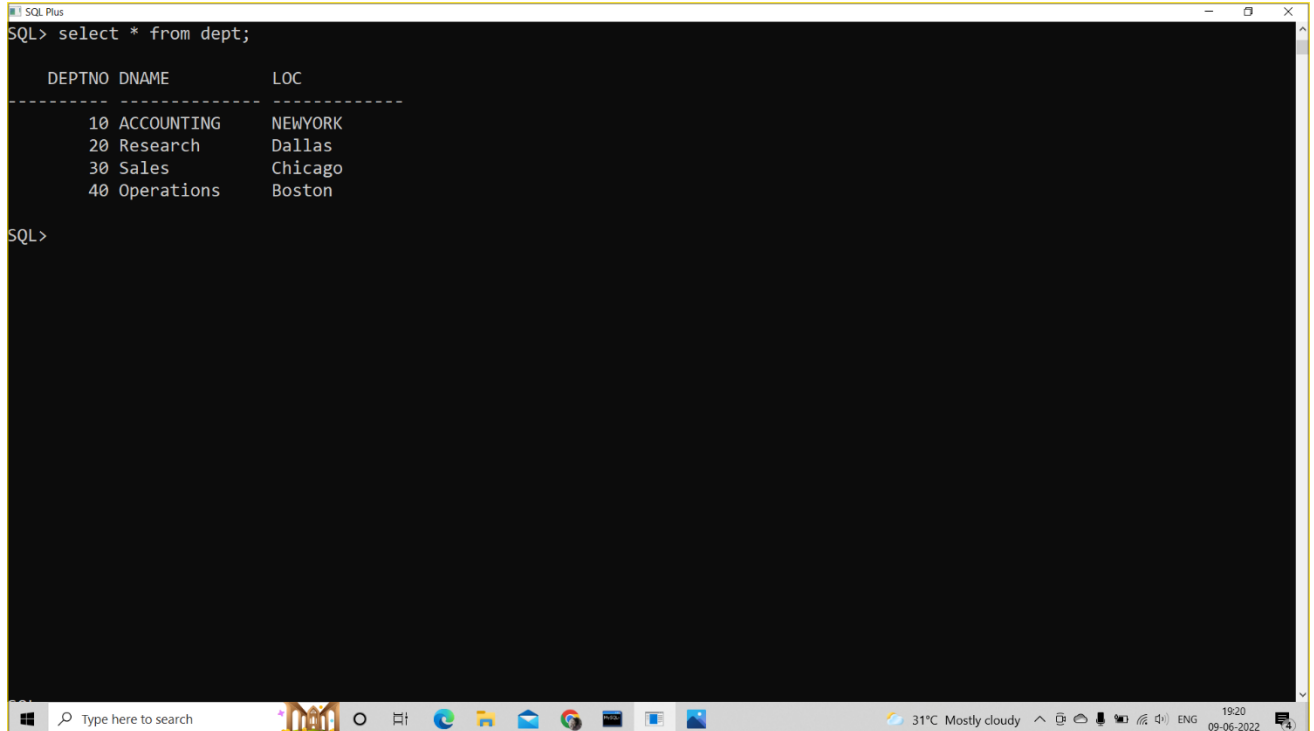
```
14 rows selected.

SQL> select * from salgrade;
```

GRADE	LOSAL	HISAL
1	700	1200
3	1401	2000
4	2001	3000
5	3001	9999

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 3 -** Select all information from dept table.



The screenshot shows a SQL Plus terminal window with the following content:

```
SQL> select * from dept;
```

DEPTNO	DNAME	LOC
10	ACCOUNTING	NEWYORK
20	Research	Dallas
30	Sales	Chicago
40	Operations	Boston

SQL>

The terminal window is titled "SQL Plus" and has a standard Windows taskbar at the bottom showing the date as 09-06-2022 and time as 19:20.

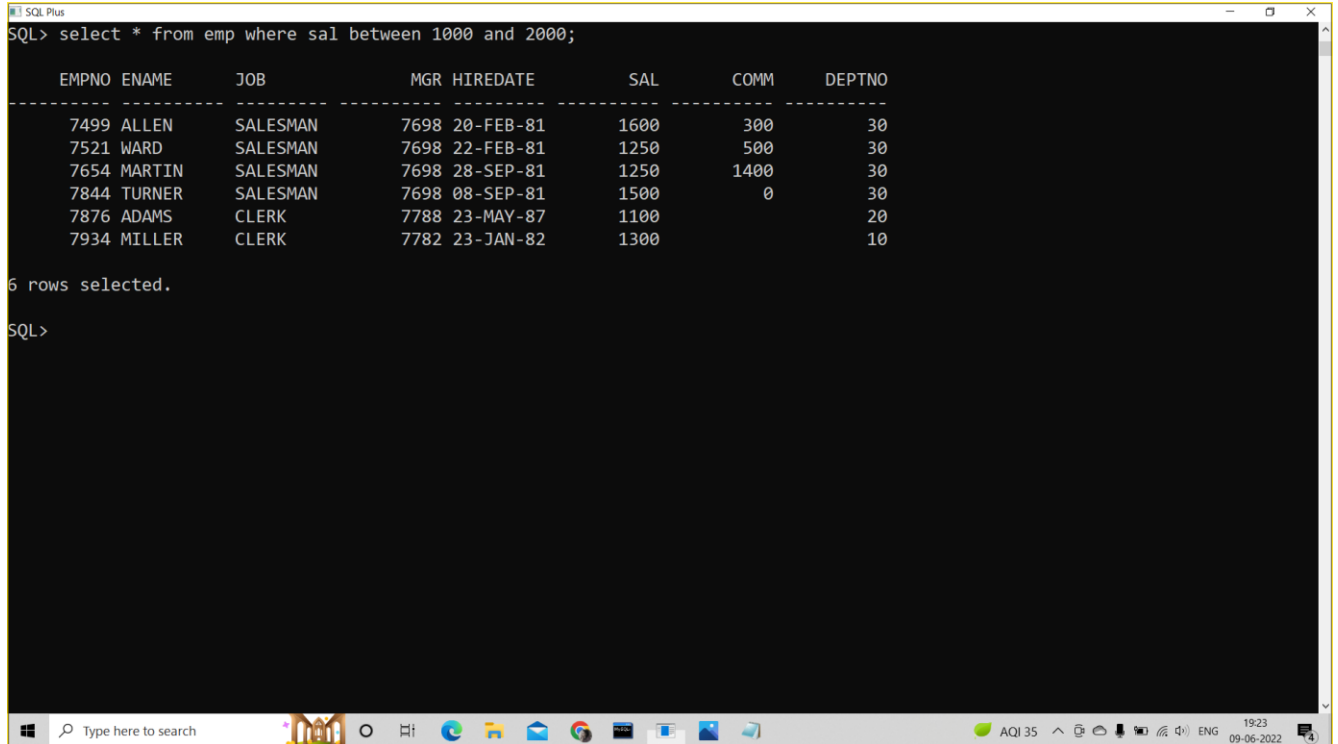
Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 4-** List all employees who have a salary between 1000 and 2000.

```
SQL> select * from emp where sal between 1000 and 2000;
```

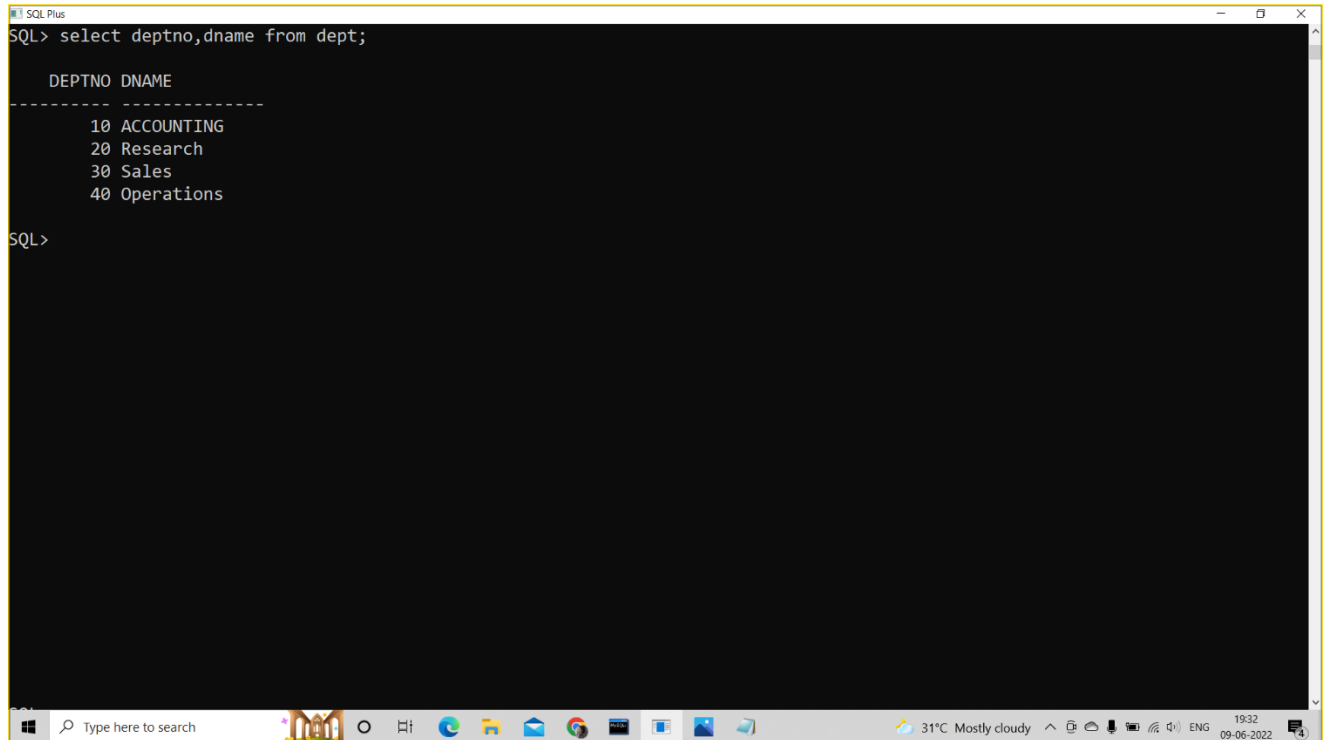
EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7499	ALLEN	SALESMAN	7698	20-FEB-81	1600	300	30
7521	WARD	SALESMAN	7698	22-FEB-81	1250	500	30
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7844	TURNER	SALESMAN	7698	08-SEP-81	1500	0	30
7876	ADAMS	CLERK	7788	23-MAY-87	1100		20
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

```
6 rows selected.  
SQL>
```

The image shows a screenshot of a Windows desktop. A window titled "SQL Plus" is open, displaying a SQL query and its results. The query is "select \* from emp where sal between 1000 and 2000;". The results are displayed in a table with columns: EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, and DEPTNO. There are 6 rows of data. Below the table, it says "6 rows selected." and "SQL>". The Windows taskbar is visible at the bottom, showing the Start button, a search bar, and several application icons. The system tray on the right shows the date and time as "19:23 09-06-2022".

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 5** - List department numbers and names in department name order.



The screenshot shows a SQL Plus terminal window with a black background and white text. The prompt 'SQL>' is followed by the command 'select deptno,dname from dept;'. The output is a table with two columns: 'DEPTNO' and 'DNAME'. The table is separated from the prompt by a dashed line. The data rows are: 10 ACCOUNTING, 20 Research, 30 Sales, and 40 Operations. The prompt 'SQL>' is visible at the bottom of the terminal window.

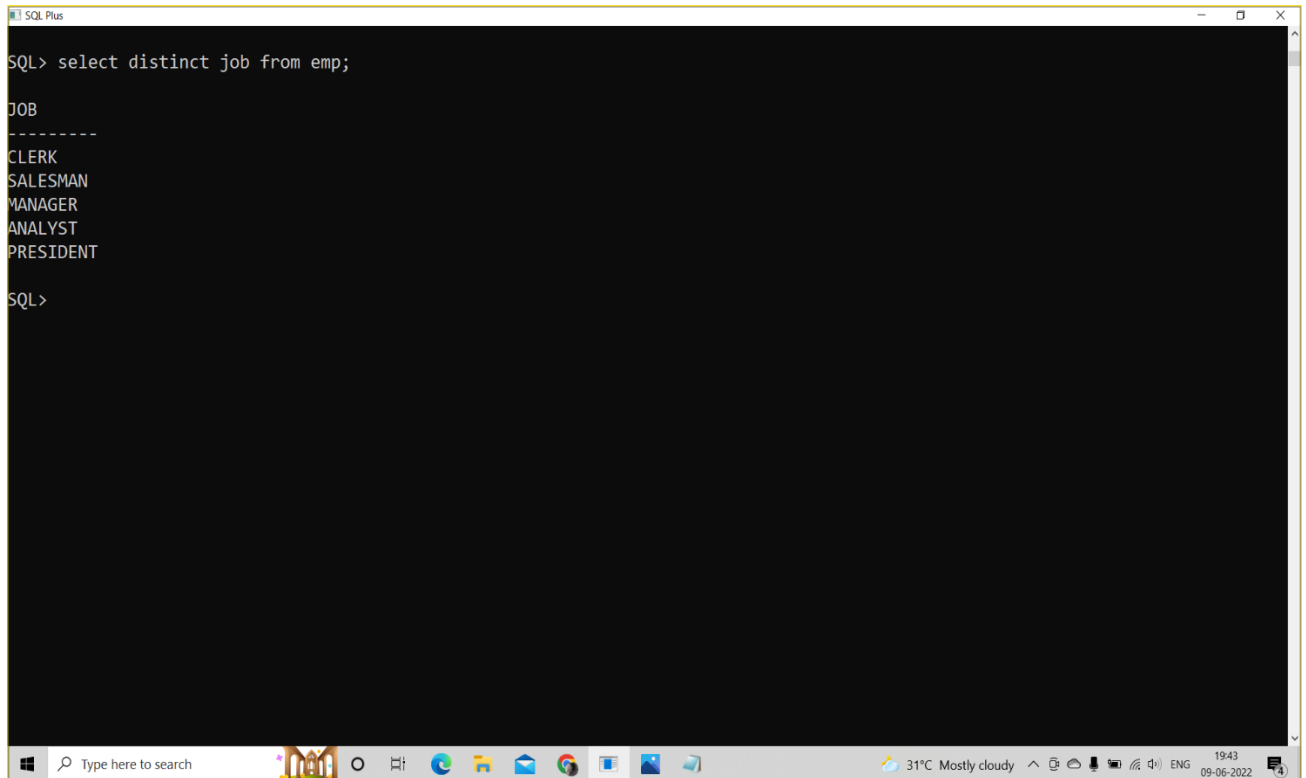
```
SQL> select deptno,dname from dept;
```

DEPTNO	DNAME
10	ACCOUNTING
20	Research
30	Sales
40	Operations

```
SQL>
```

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 6 -** Display all the different job types.



```
SQL> select distinct job from emp;

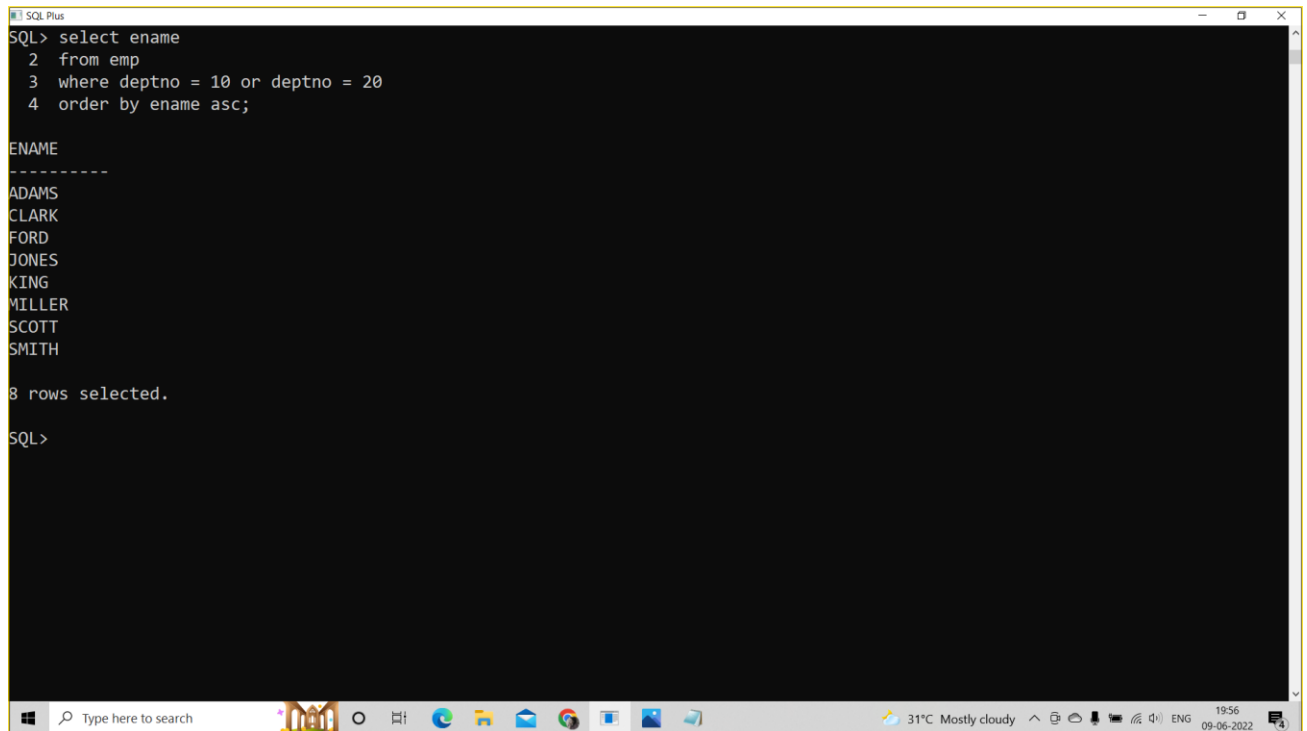
JOB
-----
CLERK
SALESMAN
MANAGER
ANALYST
PRESIDENT

SQL>
```

The screenshot shows a Windows desktop with a taskbar at the bottom. The taskbar includes a search bar, several application icons (including a folder, a globe, and a mail icon), and system tray information showing 31°C, Mostly cloudy, and the date 09-06-2022. The main window is titled 'SQL Plus' and has a black background with white text. It displays the command 'select distinct job from emp;' and the resulting list of job types: CLERK, SALESMAN, MANAGER, ANALYST, and PRESIDENT, each preceded by a dashed line separator.

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 7 -** List the details of the employees in departments 10 and 20 in alphabetical order of employee names.



The screenshot shows a Windows desktop with a terminal window titled "SQL Plus". The terminal displays the following SQL query and its results:

```
SQL> select ename
2   from emp
3  where deptno = 10 or deptno = 20
4  order by ename asc;
```

The output shows the employee names in alphabetical order:

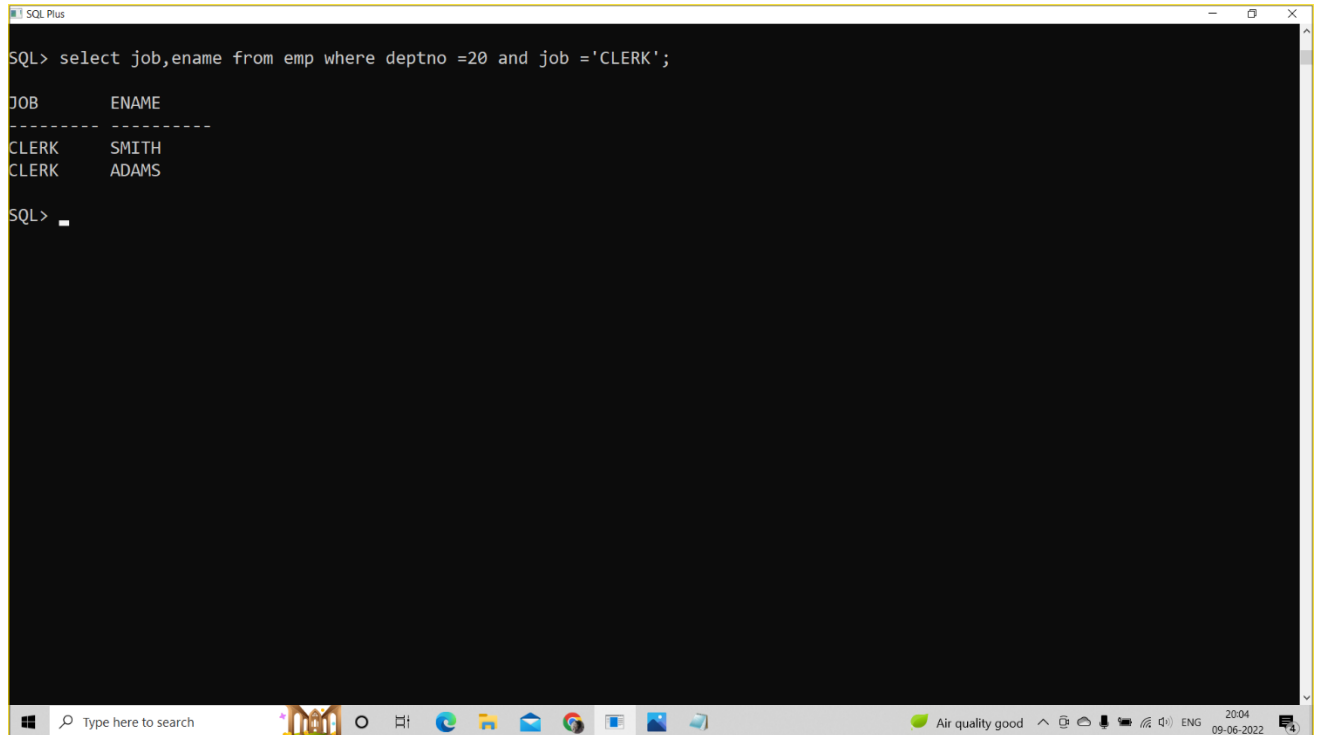
```
ENAME
-----
ADAMS
CLARK
FORD
JONES
KING
MILLER
SCOTT
SMITH
```

Below the list, it says "8 rows selected." and the prompt "SQL>" is visible.

The Windows taskbar at the bottom shows the search bar, task view button, and several application icons. The system tray on the right indicates a temperature of 31°C, mostly cloudy weather, and the date/time as 19:56 on 09-06-2022.

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 8 -** List names and jobs of all clerks in department 20.



The screenshot shows a SQL Plus terminal window with a black background and white text. The prompt 'SQL>' is followed by the query 'select job,ename from emp where deptno =20 and job = 'CLERK';'. The results are displayed in a table with two columns: 'JOB' and 'ENAME'. The first row shows 'CLERK' and 'SMITH', and the second row shows 'CLERK' and 'ADAMS'. The prompt 'SQL>' is followed by a cursor. The Windows taskbar is visible at the bottom, showing the search bar, task view, and various application icons. The system tray on the right shows the date and time as 20:04 on 09-06-2022, along with other system icons.

```
SQL> select job,ename from emp where deptno =20 and job = 'CLERK';
```

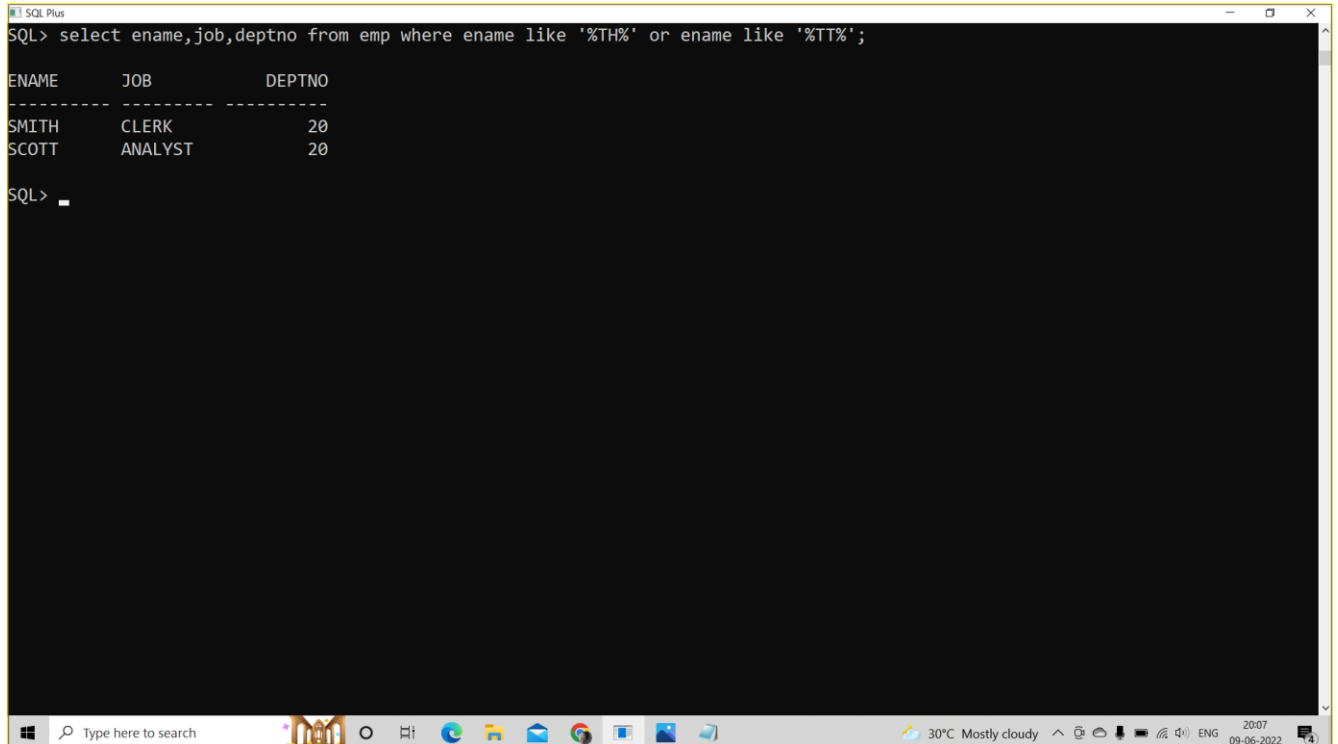
JOB	ENAME
CLERK	SMITH
CLERK	ADAMS

```
SQL> _
```



Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 9 -** Display all employee names which have TH or LL in them.



The screenshot shows a Windows desktop with an SQL Plus terminal window open. The terminal has a black background with white text. The command entered is `SQL> select ename,job,deptno from emp where ename like '%TH%' or ename like '%TT%';`. The output is a table with three columns: ENAME, JOB, and DEPTNO. The results show two rows: SMITH (CLERK, 20) and SCOTT (ANALYST, 20). The Windows taskbar is visible at the bottom, showing the search bar, taskbar icons, and system tray with weather and date information.

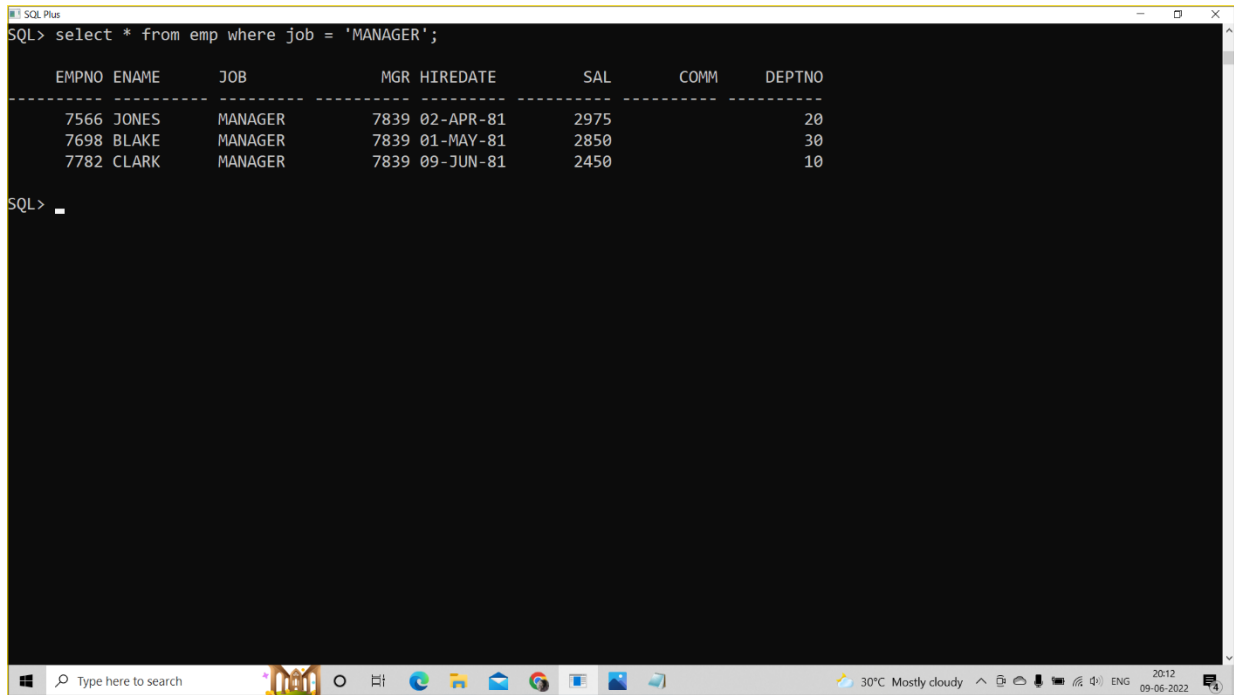
```
SQL> select ename,job,deptno from emp where ename like '%TH%' or ename like '%TT%';
```

ENAME	JOB	DEPTNO
SMITH	CLERK	20
SCOTT	ANALYST	20

```
SQL>
```

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 10 -** List the details of the employees who have a manager.



The screenshot shows a SQL Plus window with a black background and white text. The command prompt shows the execution of a SQL query: `SQL> select * from emp where job = 'MANAGER';`. The output is a table with columns EMPNO, ENAME, JOB, MGR, HIREDATE, SAL, COMM, and DEPTNO. Three rows of data are displayed, corresponding to employees JONES, BLAKE, and CLARK, all of whom are managers.

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7782	CLARK	MANAGER	7839	09-JUN-81	2450		10

SQL> \_

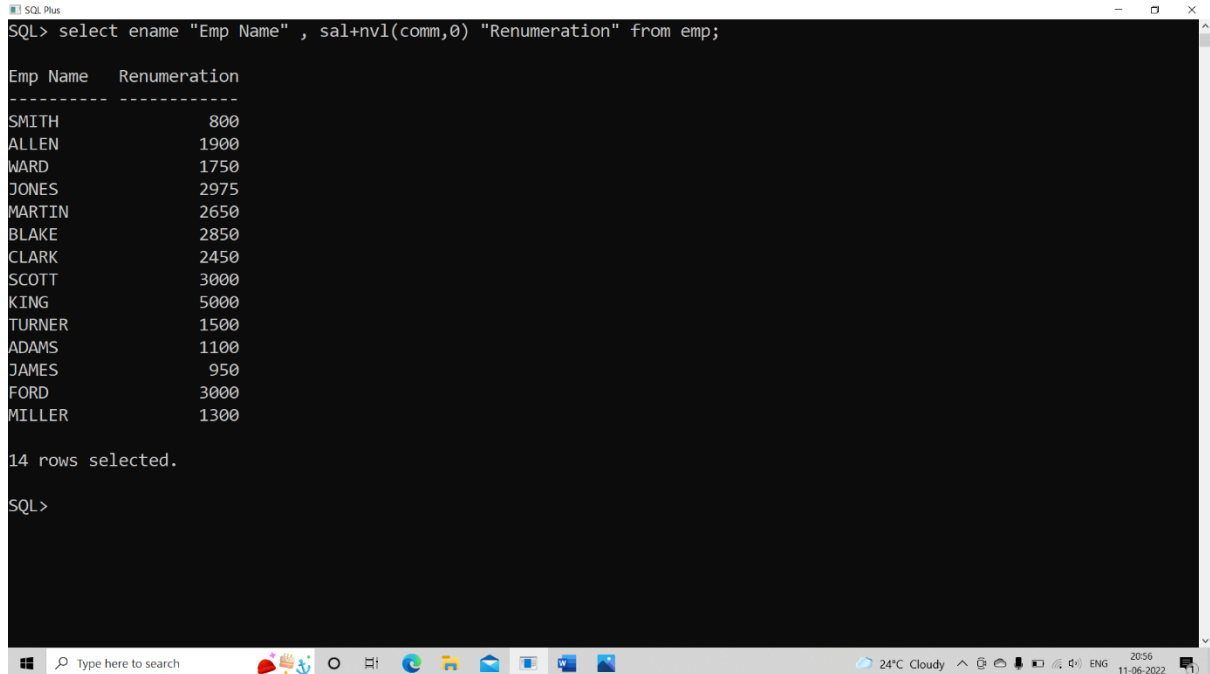
Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 11-** Display the name and the total remuneration for all employees

```
SQL> select ename "Emp Name" , sal+nvl(comm,0) "Remuneration" from emp;
```

Emp Name	Remuneration
SMITH	800
ALLEN	1900
WARD	1750
JONES	2975
MARTIN	2650
BLAKE	2850
CLARK	2450
SCOTT	3000
KING	5000
TURNER	1500
ADAMS	1100
JAMES	950
FORD	3000
MILLER	1300

```
14 rows selected.  
SQL>
```



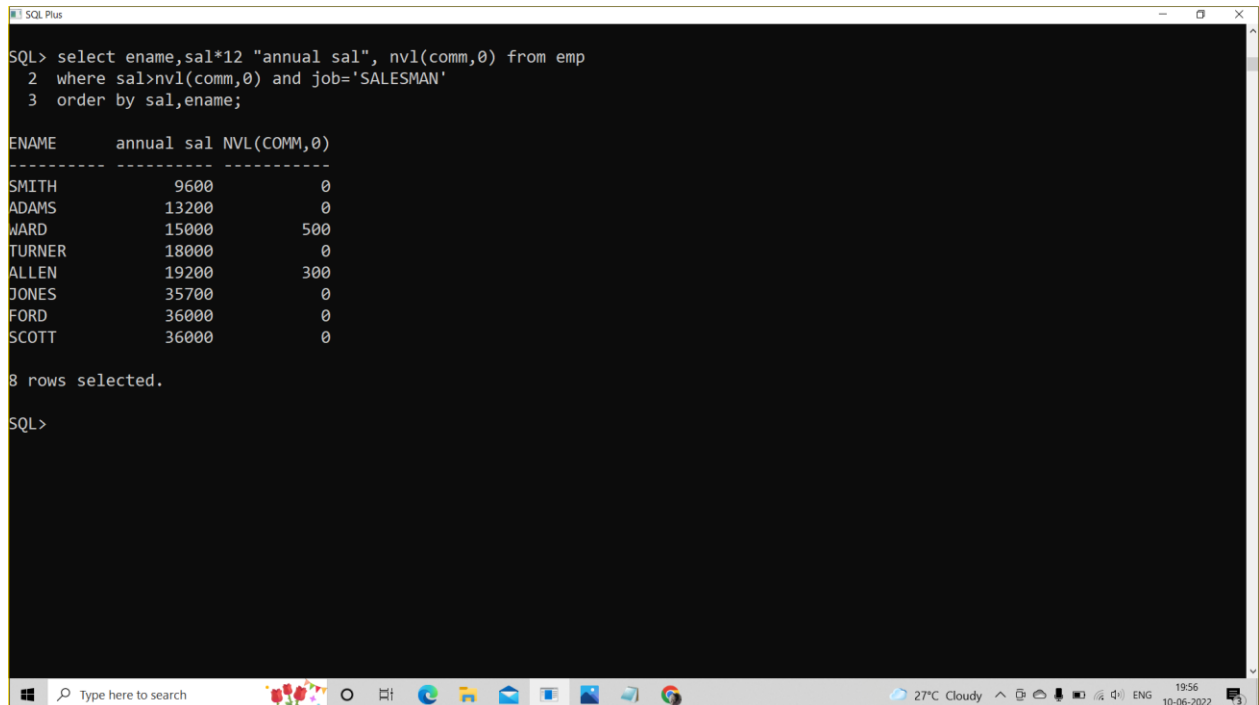
Roll No- 220350320054

Full Name- Rashmi Sunil Khandekar

PG-DAC March 2022

Database Technologies

**Que 12** - Display name, annual salary and commission of all sales people whose monthly salary is greater than their commission. The output should be ordered by salary highest first. If two or more employees have the same salary sort by employee name, within the highest salary order.



The screenshot shows a SQL Plus window with a query executed. The query selects employee names, annual salary (monthly salary multiplied by 12), and commission for salesmen, ordered by salary in descending order. The results show 8 rows selected.

```
SQL> select ename,sal*12 "annual sal", nvl(comm,0) from emp
2  where sal>nvl(comm,0) and job='SALESMAN'
3  order by sal,ename;
```

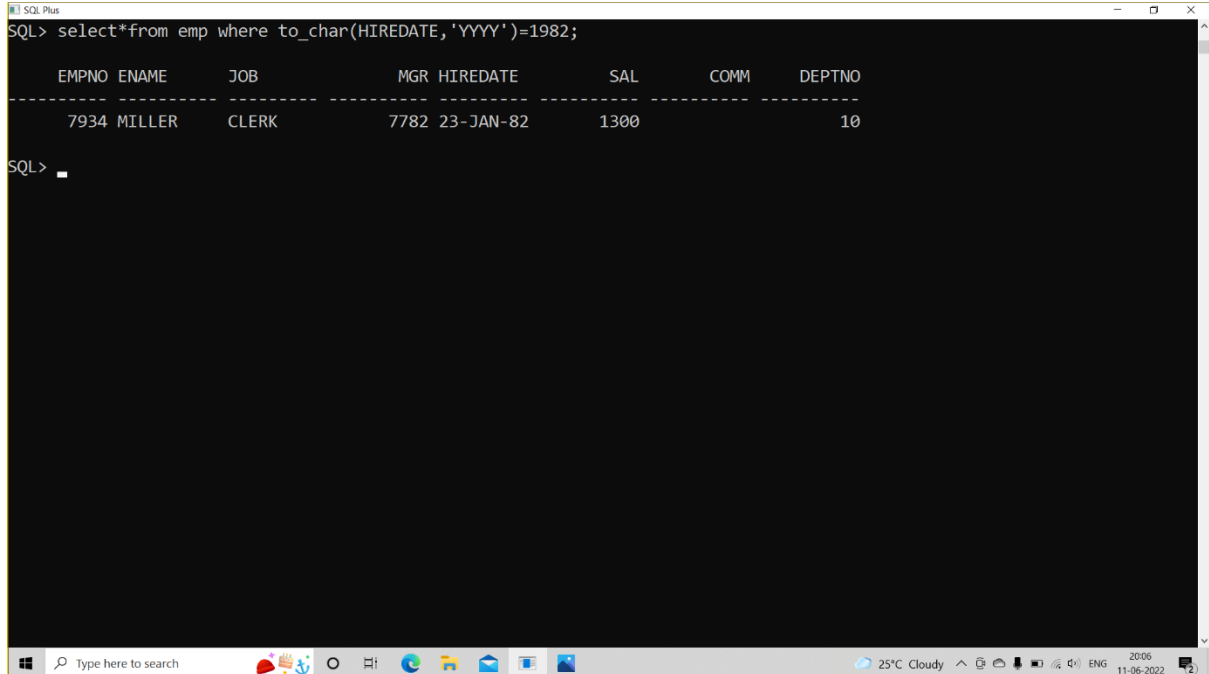
ENAME	annual sal	NVL(COMM,0)
SMITH	9600	0
ADAMS	13200	0
WARD	15000	500
TURNER	18000	0
ALLEN	19200	300
JONES	35700	0
FORD	36000	0
SCOTT	36000	0

8 rows selected.

SQL>

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 13** - Display all employees who were hired during 1982.



The screenshot shows a SQL Plus terminal window with the following content:

```
SQL> select * from emp where to_char(HIREDATE, 'YYYY')=1982;
```

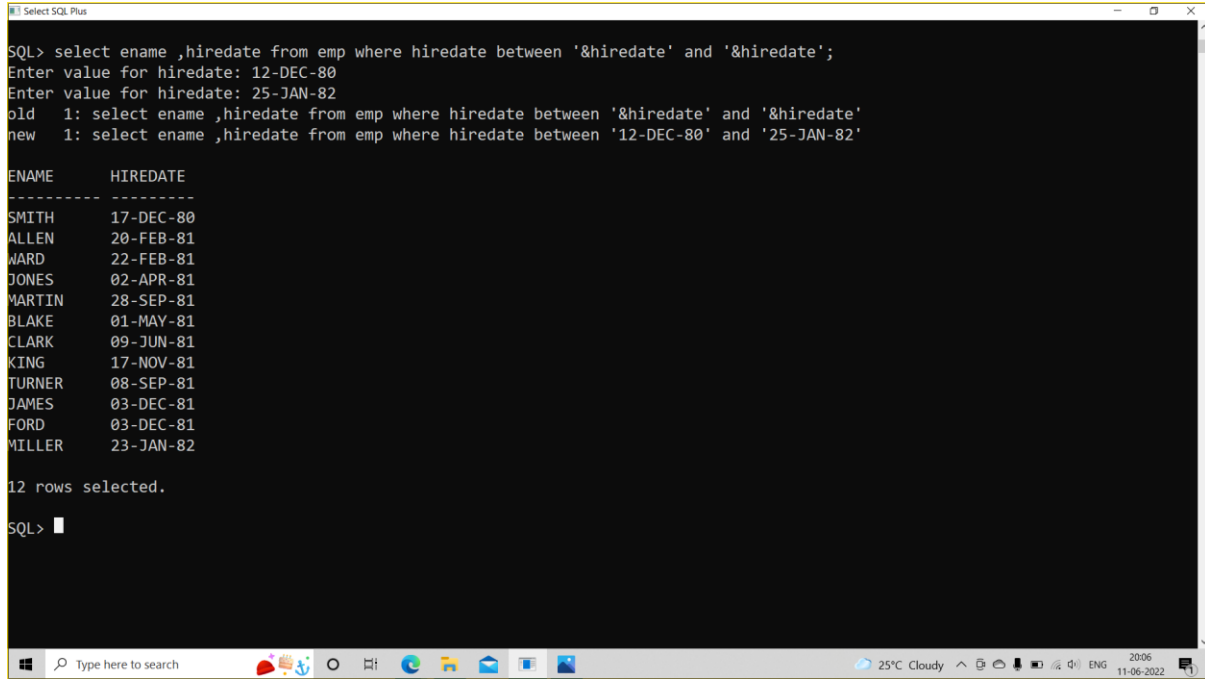
EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7934	MILLER	CLERK	7782	23-JAN-82	1300		10

SQL> \_

The terminal window is titled "SQL Plus" and has standard Windows taskbar elements at the bottom, including a search bar, taskbar icons, and system tray information (25°C Cloudy, 20:06, 11-06-2022).

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 14 -** Generate a statement, which prompts the user at runtime. The intention is to display employees hired between two given dates.



```
SQL> select ename ,hiredate from emp where hiredate between '&hiredate' and '&hiredate';
Enter value for hiredate: 12-DEC-80
Enter value for hiredate: 25-JAN-82
old 1: select ename ,hiredate from emp where hiredate between '&hiredate' and '&hiredate'
new 1: select ename ,hiredate from emp where hiredate between '12-DEC-80' and '25-JAN-82'

ENAME          HIREDATE
-----
SMITH          17-DEC-80
ALLEN          20-FEB-81
WARD           22-FEB-81
JONES          02-APR-81
MARTIN         28-SEP-81
BLAKE          01-MAY-81
CLARK          09-JUN-81
KING           17-NOV-81
TURNER         08-SEP-81
JAMES          03-DEC-81
FORD           03-DEC-81
MILLER         23-JAN-82

12 rows selected.

SQL>
```

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 15 -** Define a variable representing the expression used to calculate an employee's total annual remuneration. Use this variable in a statement, which finds all employees who earn 30,000 a year or more.

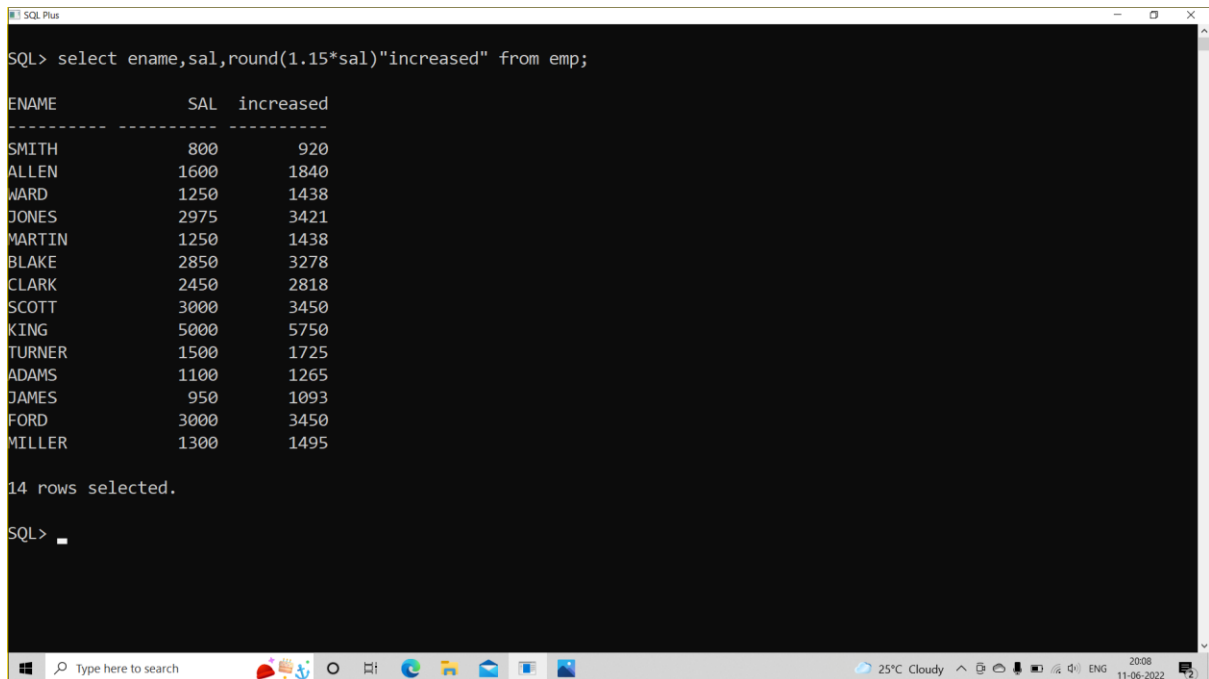
```
SQL> select * from emp where (sal+nvl(comm,0))*12 > 30000;
```

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7566	JONES	MANAGER	7839	02-APR-81	2975		20
7654	MARTIN	SALESMAN	7698	28-SEP-81	1250	1400	30
7698	BLAKE	MANAGER	7839	01-MAY-81	2850		30
7788	SCOTT	ANALYST	7566	19-APR-87	3000		20
7839	KING	PRESIDENT		17-NOV-81	5000		10
7902	FORD	ANALYST	7566	03-DEC-81	3000		20

```
6 rows selected.  
SQL>
```

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 16 -** List the employee names and their salaries increased by 15% and expressed as a whole number .



The screenshot shows a SQL Plus terminal window with the following content:

```
SQL> select ename,sal,round(1.15*sal)"increased" from emp;
```

ENAME	SAL	increased
SMITH	800	920
ALLEN	1600	1840
WARD	1250	1438
JONES	2975	3421
MARTIN	1250	1438
BLAKE	2850	3278
CLARK	2450	2818
SCOTT	3000	3450
KING	5000	5750
TURNER	1500	1725
ADAMS	1100	1265
JAMES	950	1093
FORD	3000	3450
MILLER	1300	1495

14 rows selected.

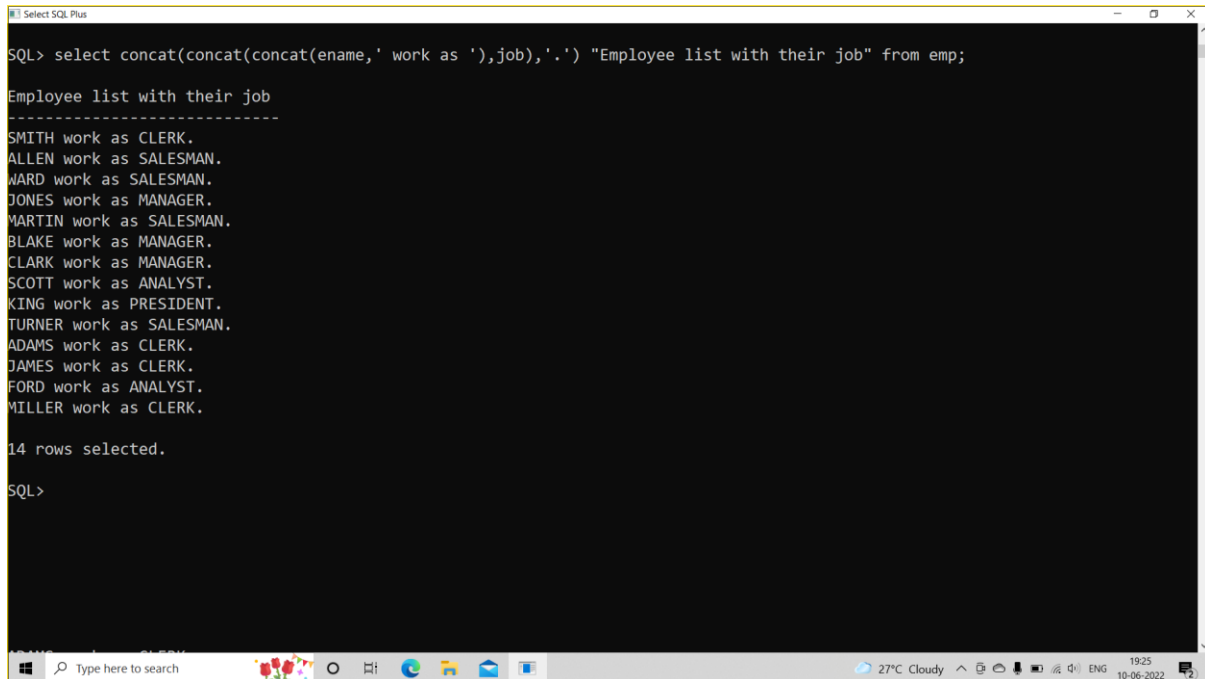
```
SQL>
```

The terminal window also shows the Windows taskbar at the bottom with the search bar, task icons, and system tray information (25°C Cloudy, 20:08, 11-06-2022).



Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 17 -** Display the employee name and job by concatenating them and give an appropriate heading.



The screenshot shows a Windows desktop with a terminal window titled "Select SQL Plus". The terminal displays an SQL query and its output. The query is: `SQL> select concat(concat(concat(ename,' work as '),job),'.') "Employee list with their job" from emp;`. The output shows 14 rows of employee names and jobs concatenated, such as "SMITH work as CLERK.", "ALLEN work as SALESMAN.", etc. The terminal also shows "14 rows selected." and "SQL>". The Windows taskbar at the bottom shows the date as 10-06-2022 and the time as 19:25.

```
SQL> select concat(concat(concat(ename,' work as '),job),'.') "Employee list with their job" from emp;

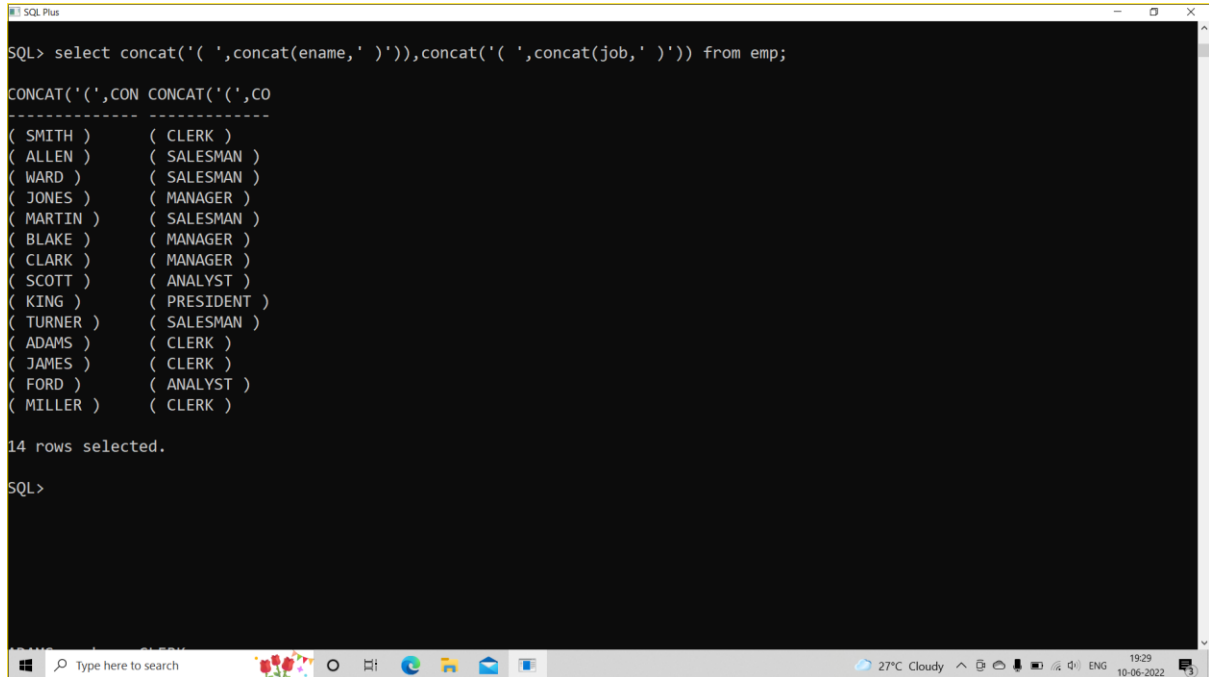
Employee list with their job
-----
SMITH work as CLERK.
ALLEN work as SALESMAN.
WARD work as SALESMAN.
JONES work as MANAGER.
MARTIN work as SALESMAN.
BLAKE work as MANAGER.
CLARK work as MANAGER.
SCOTT work as ANALYST.
KING work as PRESIDENT.
TURNER work as SALESMAN.
ADAMS work as CLERK.
JAMES work as CLERK.
FORD work as ANALYST.
MILLER work as CLERK.

14 rows selected.

SQL>
```

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 18 -** Display the employee name and the job in brackets.



The screenshot shows a SQL Plus window with a black background and white text. The command prompt shows the execution of a SQL query to select employee names and jobs, concatenated with spaces and enclosed in parentheses. The output displays 14 rows of data, showing employee names and their corresponding job titles in a bracketed format. The window title is 'SQL Plus'. The Windows taskbar is visible at the bottom, showing the search bar, task view button, and various application icons. The system tray on the right indicates the temperature is 27°C, it's cloudy, and the date is 10-06-2022.

```
SQL> select concat(' ( ',concat(ename,' ) ')),concat(' ( ',concat(job,' ) ')) from emp;

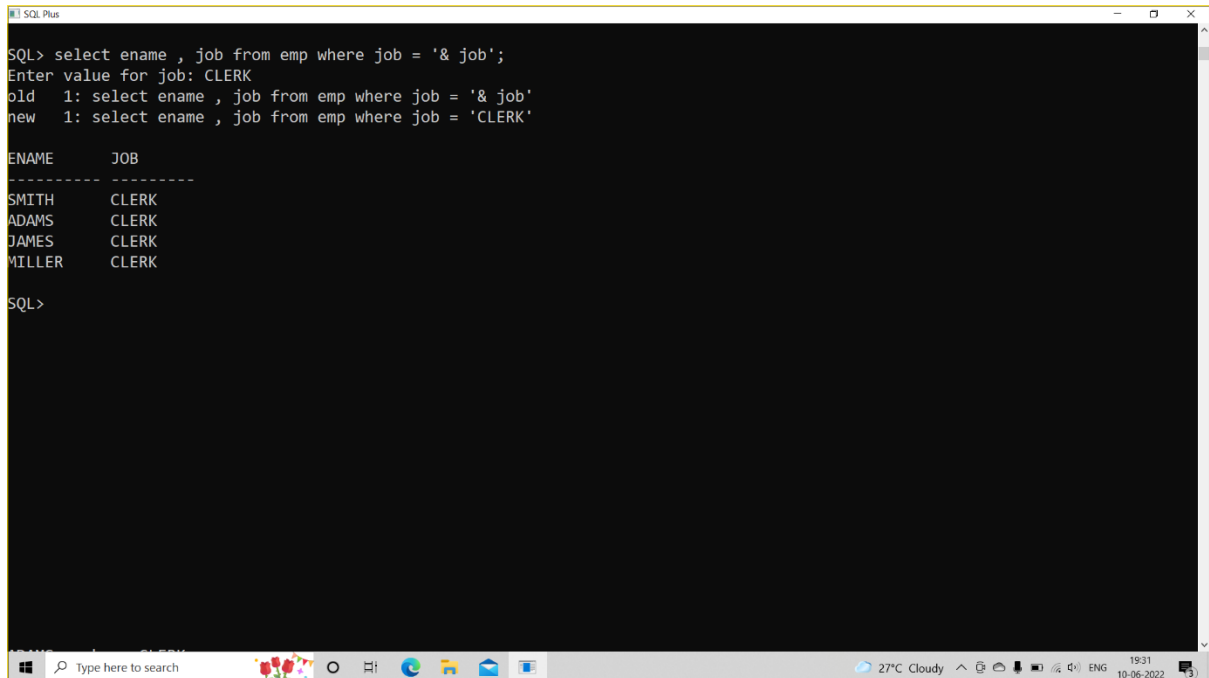
CONCAT(' ( ',CONCAT(' ( ',CO
-----
( SMITH )      ( CLERK )
( ALLEN )      ( SALESMAN )
( WARD )       ( SALESMAN )
( JONES )      ( MANAGER )
( MARTIN )     ( SALESMAN )
( BLAKE )      ( MANAGER )
( CLARK )      ( MANAGER )
( SCOTT )      ( ANALYST )
( KING )       ( PRESIDENT )
( TURNER )     ( SALESMAN )
( ADAMS )      ( CLERK )
( JAMES )      ( CLERK )
( FORD )       ( ANALYST )
( MILLER )     ( CLERK )

14 rows selected.

SQL>
```

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 19 -** Do a case insensitive search for a list of employees with a job that the user enters.



```
SQL> select ename , job from emp where job = '& job';
Enter value for job: CLERK
old 1: select ename , job from emp where job = '& job'
new 1: select ename , job from emp where job = 'CLERK'

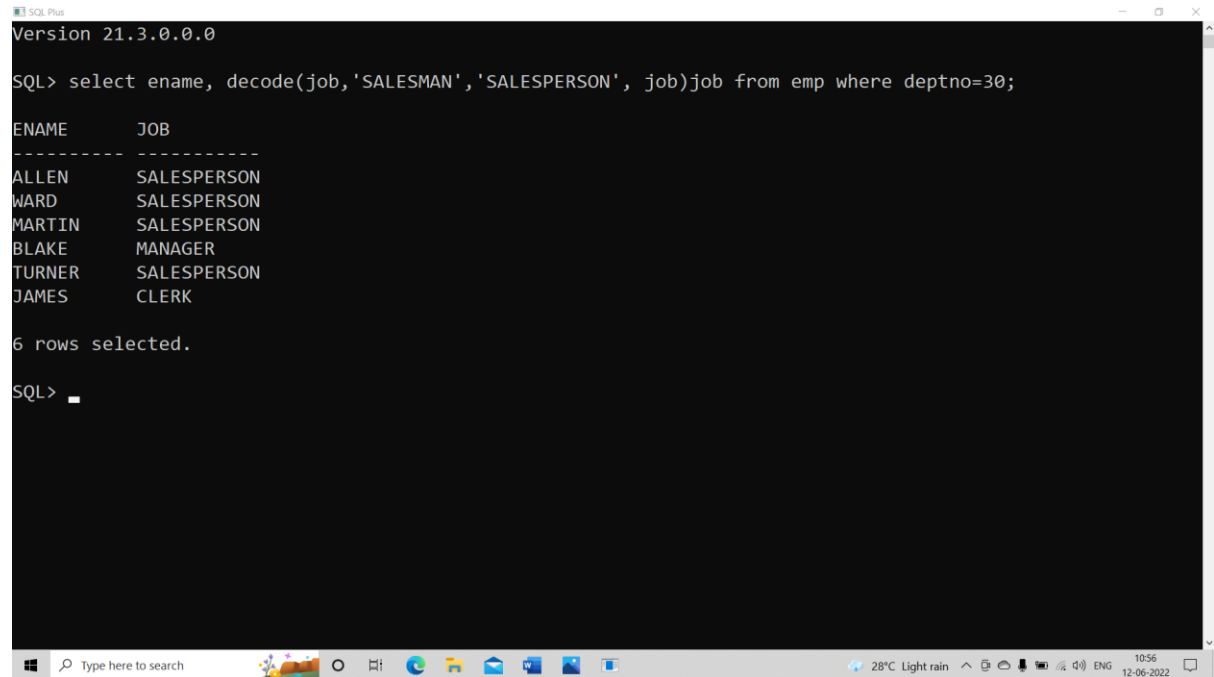
ENAME      JOB
-----
SMITH      CLERK
ADAMS      CLERK
JAMES      CLERK
MILLER     CLERK

SQL>
```

The screenshot shows a Windows desktop with a taskbar at the bottom. The taskbar includes a search bar, several application icons (including a flower icon), and system tray information showing 27°C Cloudy, 19:31, and 10-06-2022. The main window is titled 'SQL Plus' and displays the SQL command execution results for a case-insensitive search of the 'emp' table for employees with the job 'CLERK'.

Roll No- 220350320054  
Full Name- Rashmi Sunil Khandekar  
PG-DAC March 2022  
Database Technologies

**Que 20 -** It has been discovered that the sales people in department 30 are not all men. Hence display the job of salesman as salesperson.



The screenshot shows a terminal window titled "SQL\*Plus" with version "21.3.0.0.0". The user has executed the query: `SQL> select ename, decode(job,'SALESMAN','SALESPERSON', job)job from emp where deptno=30;`. The output is a table with two columns: `ENAME` and `JOB`. The data rows are: `ALLEN SALESPERSON`, `WARD SALESPERSON`, `MARTIN SALESPERSON`, `BLAKE MANAGER`, `TURNER SALESPERSON`, and `JAMES CLERK`. Below the table, it says "6 rows selected." and the prompt "SQL> " is visible.

ENAME	JOB
ALLEN	SALESPERSON
WARD	SALESPERSON
MARTIN	SALESPERSON
BLAKE	MANAGER
TURNER	SALESPERSON
JAMES	CLERK