Bhagwan Parshuram Institute of Technology

B.Tech (IT) 4th Semester

Subject: **CIC-256: DBMS Lab.**

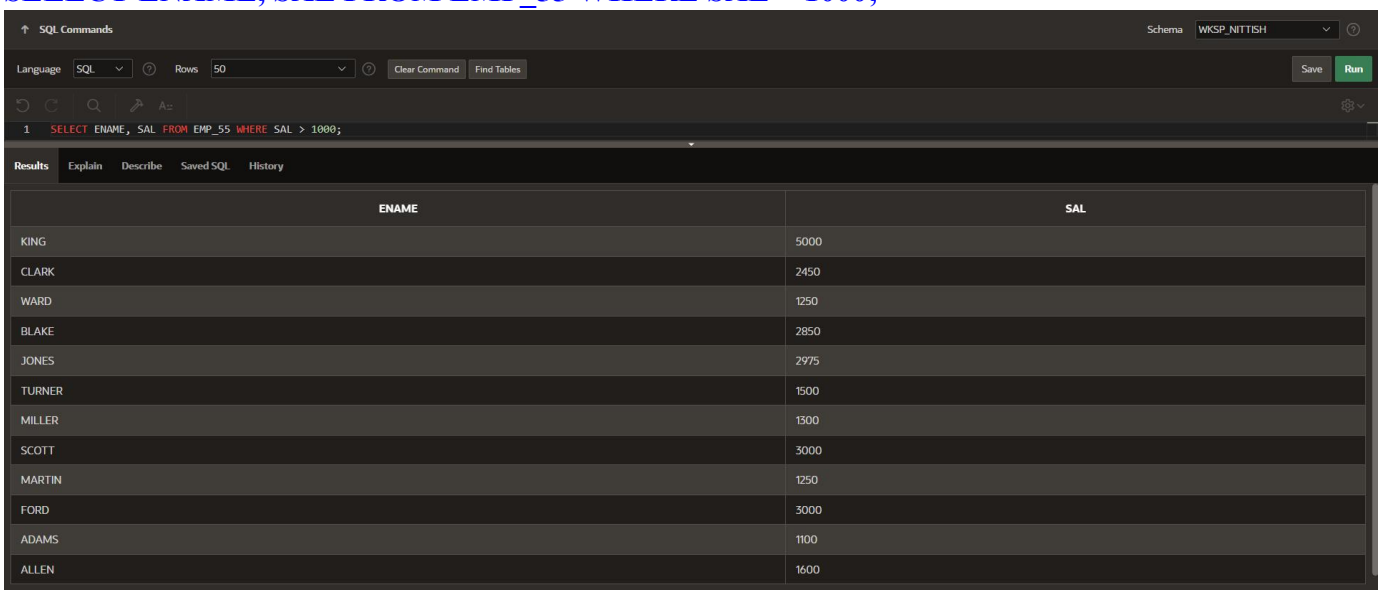
List of Practical Exercises

Set 2: Querying Single Table

Note: Consider the EMP and DEPT tables created in Set 1 for the following queries.

1. List the name and salary of the employees whose salary is more than 1000.

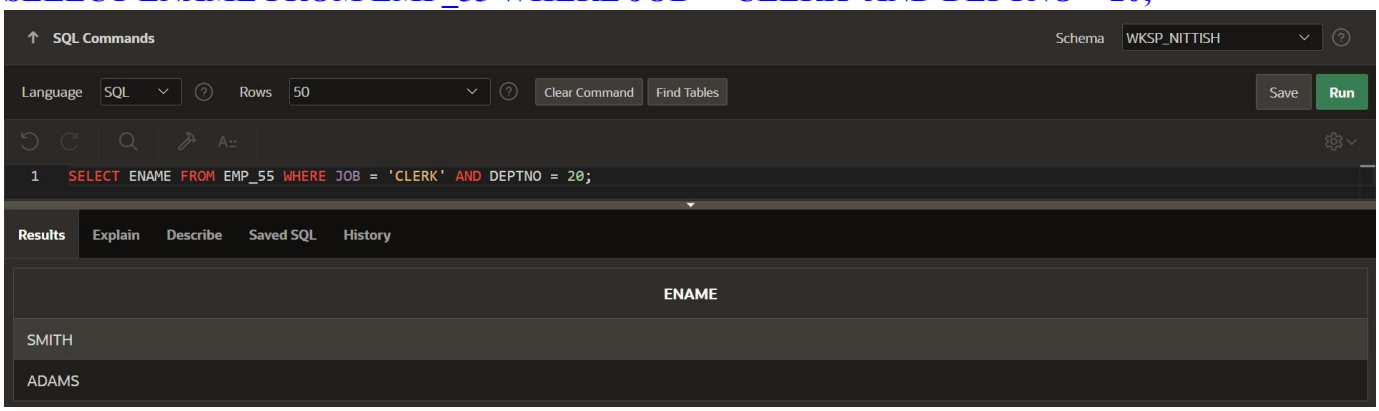
SELECT ENAME, SAL FROM EMP_55 WHERE SAL > 1000;



ENAME	SAL
KING	5000
CLARK	2450
WARD	1250
BLAKE	2850
JONES	2975
TURNER	1500
MILLER	1300
SCOTT	3000
MARTIN	1250
FORD	3000
ADAMS	1100
ALLEN	1600

2. List the names of clerks working in the department 20.

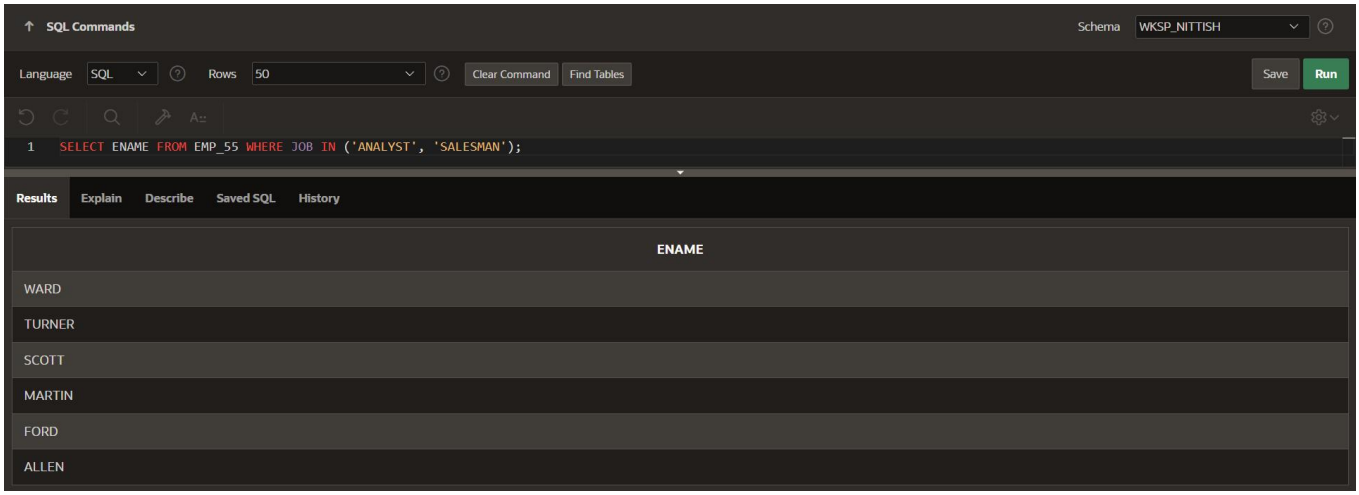
SELECT ENAME FROM EMP_55 WHERE JOB = 'CLERK' AND DEPTNO = 20;



ENAME
SMITH
ADAMS

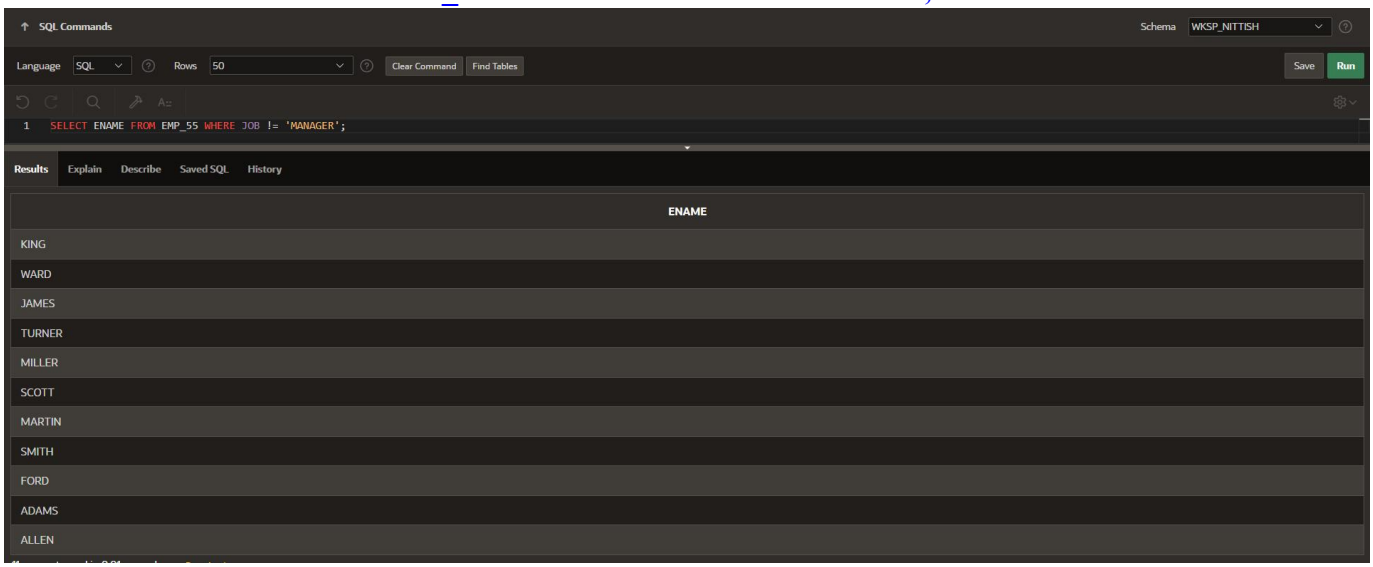
3. List the names of analysts and salesman.

SELECT ENAME FROM EMP_55 WHERE JOB IN ('ANALYST', 'SALESMAN');



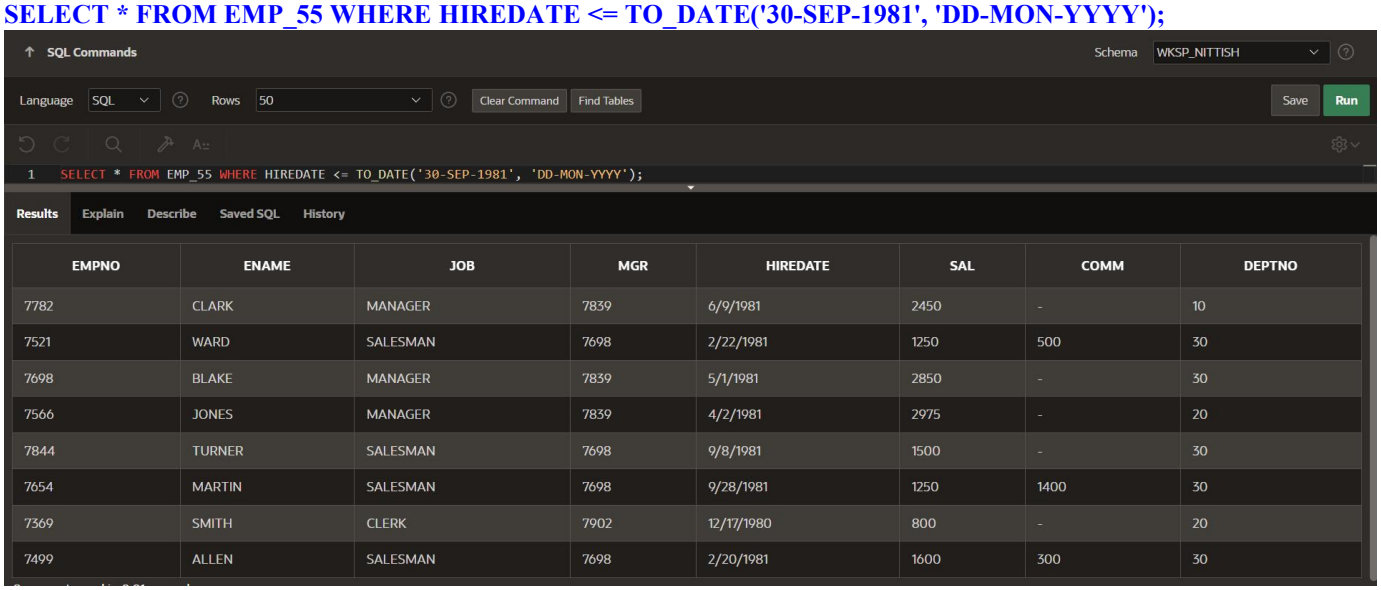
4. List the names of employees who are not manager.

SELECT ENAME FROM EMP_55 WHERE JOB != 'MANAGER';



5. List the details of the employees who have joined before the end of september'81.

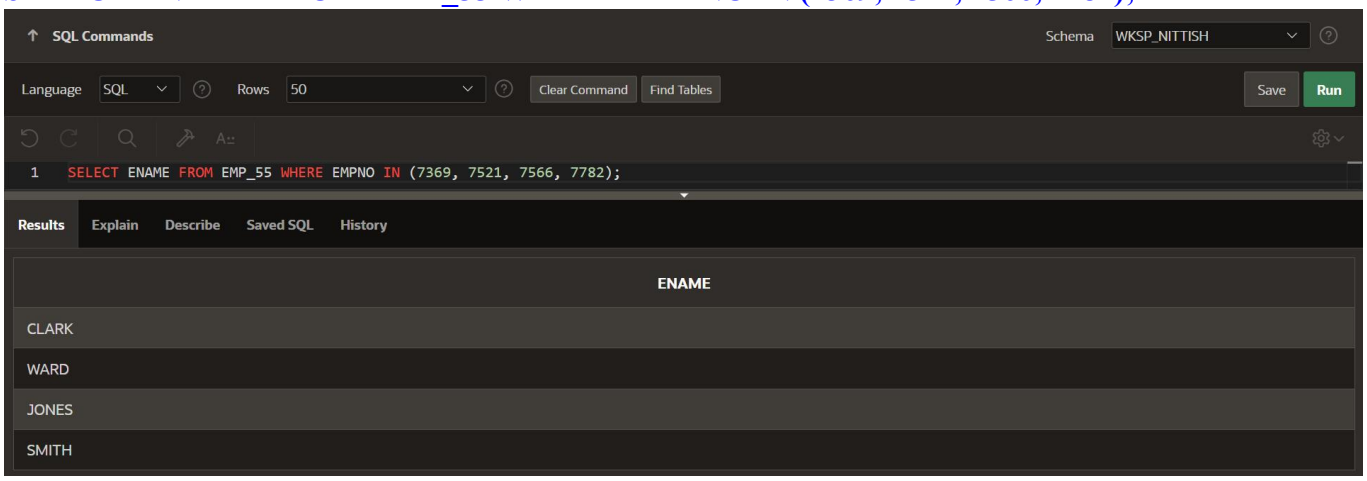
SELECT * FROM EMP_55 WHERE HIREDATE <= TO_DATE('30-SEP-1981', 'DD-MON-YYYY');



EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7782	CLARK	MANAGER	7839	6/9/1981	2450	-	10
7521	WARD	SALESMAN	7698	2/22/1981	1250	500	30
7698	BLAKE	MANAGER	7839	5/1/1981	2850	-	30
7566	JONES	MANAGER	7839	4/2/1981	2975	-	20
7844	TURNER	SALESMAN	7698	9/8/1981	1500	-	30
7654	MARTIN	SALESMAN	7698	9/28/1981	1250	1400	30
7369	SMITH	CLERK	7902	12/17/1980	800	-	20
7499	ALLEN	SALESMAN	7698	2/20/1981	1600	300	30

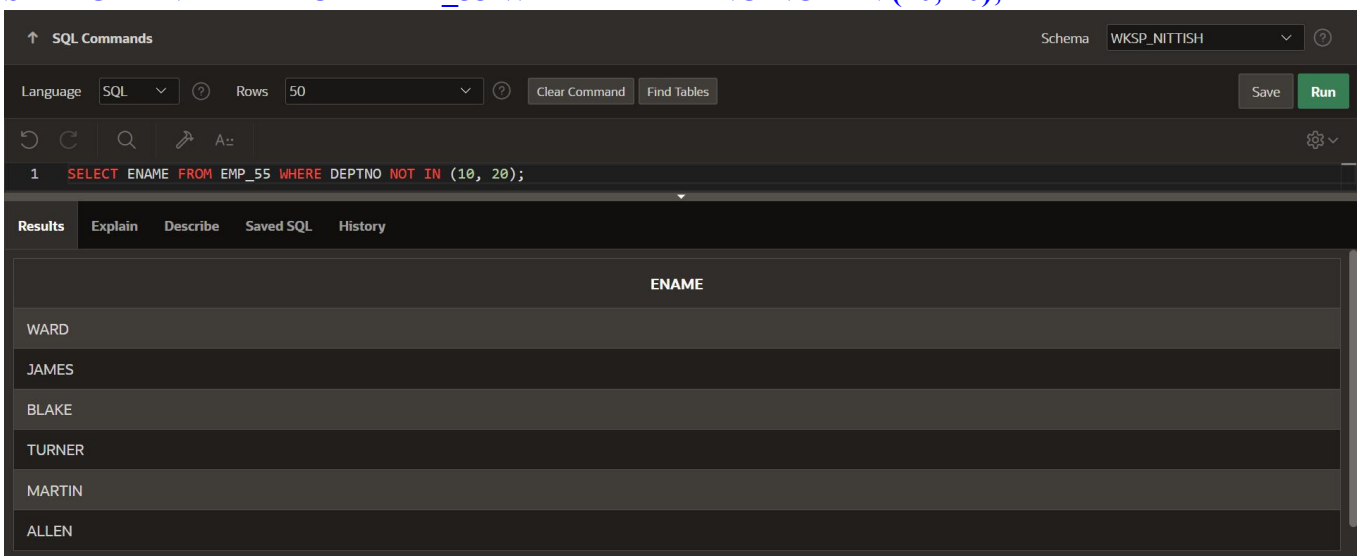
6. List the names of the employees whose employee numbers are 7369,7521,7566,7782.

SELECT ENAME FROM EMP_55 WHERE EMPNO IN (7369, 7521, 7566, 7782);



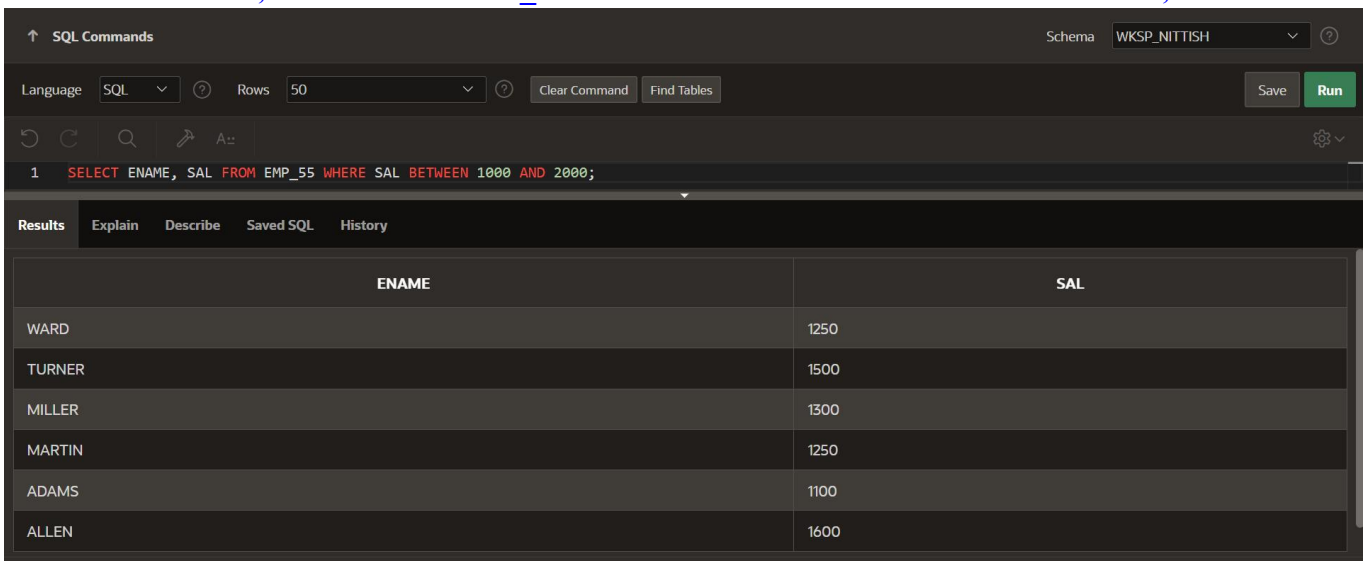
7. List the names of the employees not belonging to the department 10 and 20.

SELECT ENAME FROM EMP_55 WHERE DEPTNO NOT IN (10, 20);



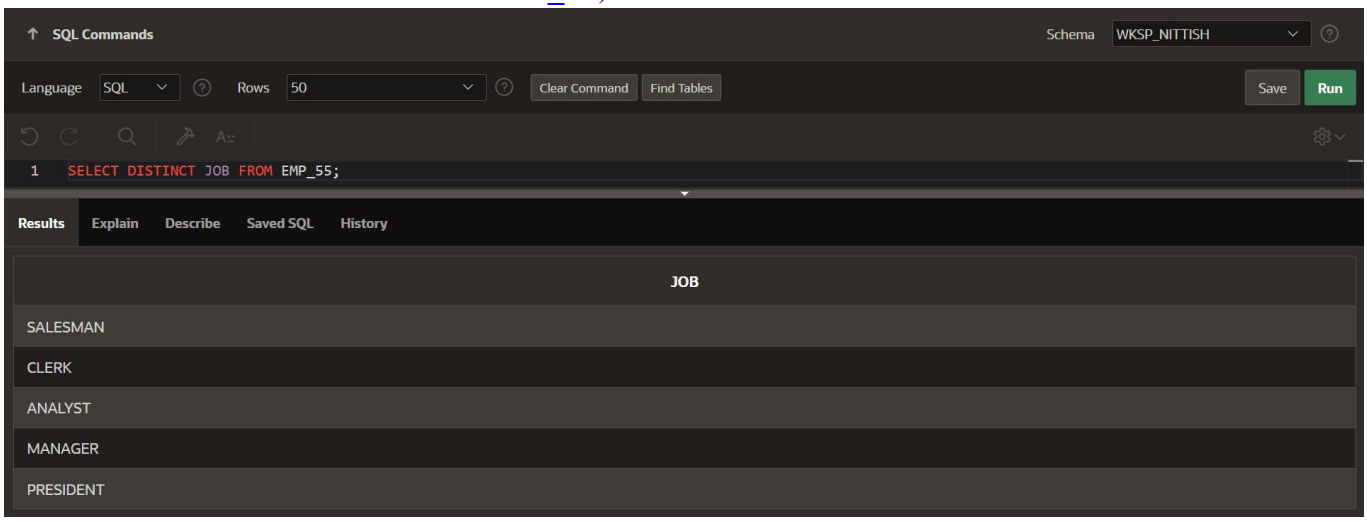
8. List the employees name and salary, whose salary is between 1000 and 2000.

SELECT ENAME, SAL FROM EMP_55 WHERE SAL BETWEEN 1000 AND 2000;



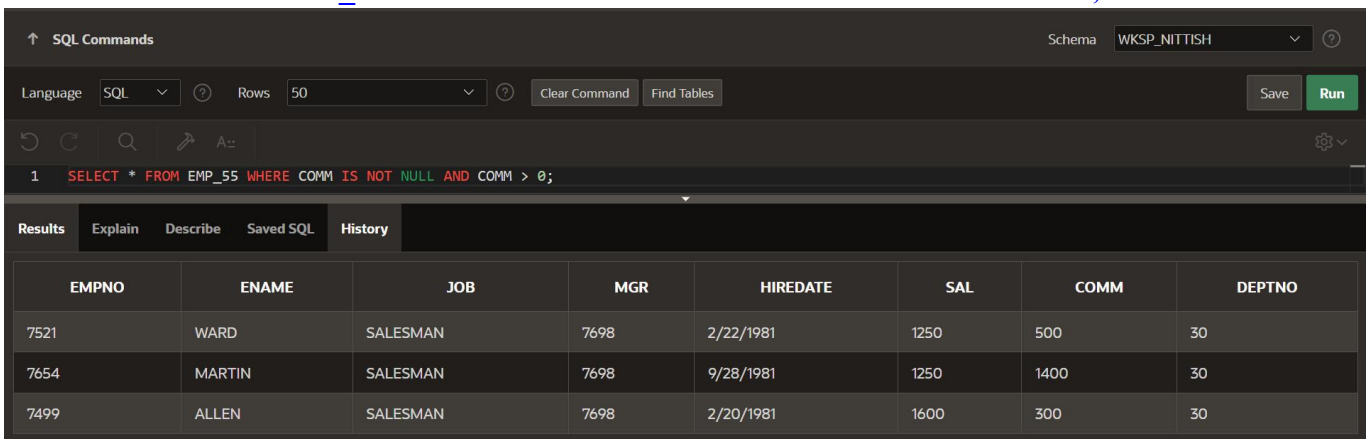
9. List the different jobs available in the employee table.

SELECT DISTINCT JOB FROM EMP_55;



10. List the employees who are eligible for commission.

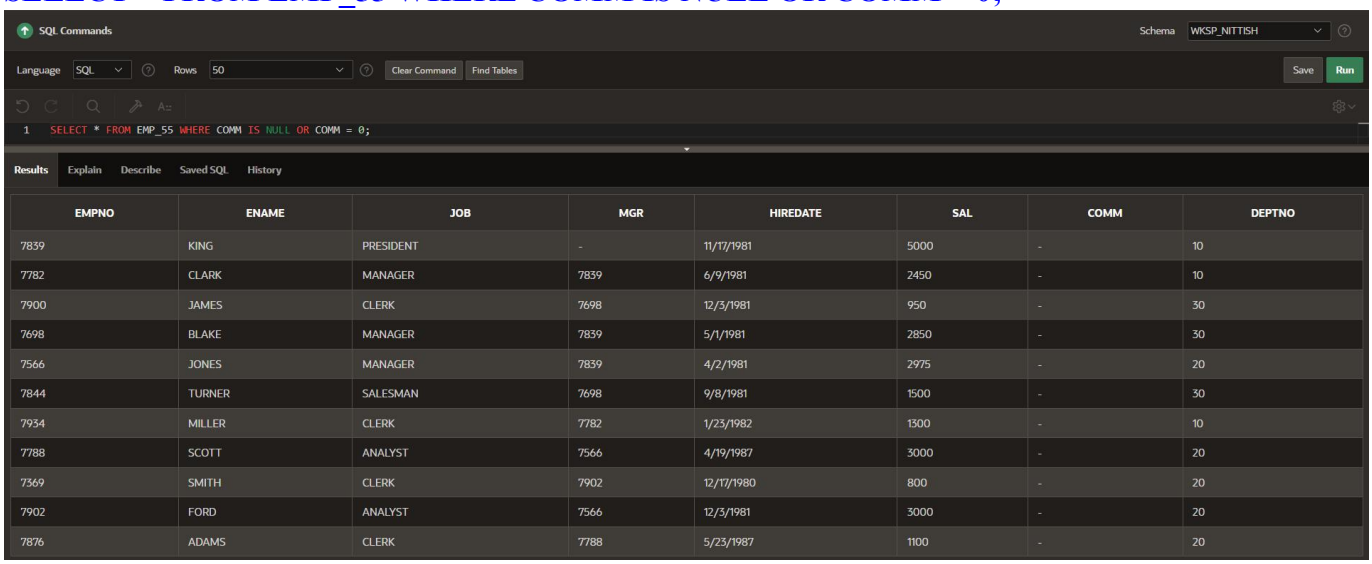
SELECT * FROM EMP_55 WHERE COMM IS NOT NULL AND COMM > 0;



EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7521	WARD	SALESMAN	7698	2/22/1981	1250	500	30
7654	MARTIN	SALESMAN	7698	9/28/1981	1250	1400	30
7499	ALLEN	SALESMAN	7698	2/20/1981	1600	300	30

11. List the employees who are not eligible for commission.

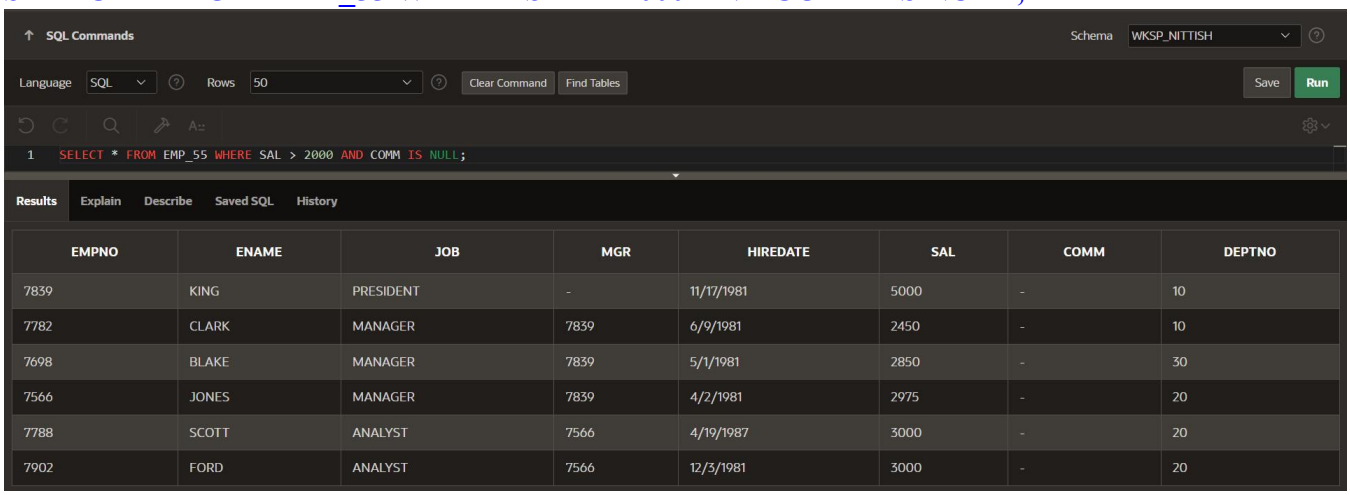
SELECT * FROM EMP_55 WHERE COMM IS NULL OR COMM = 0;



EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	PRESIDENT	-	11/17/1981	5000	-	10
7782	CLARK	MANAGER	7839	6/9/1981	2450	-	10
7900	JAMES	CLERK	7698	12/3/1981	950	-	30
7698	BLAKE	MANAGER	7839	5/1/1981	2850	-	30
7566	JONES	MANAGER	7839	4/2/1981	2975	-	20
7844	TURNER	SALESMAN	7698	9/8/1981	1500	-	30
7934	MILLER	CLERK	7782	1/23/1982	1300	-	10
7788	SCOTT	ANALYST	7566	4/19/1987	3000	-	20
7369	SMITH	CLERK	7902	12/17/1980	800	-	20
7902	FORD	ANALYST	7566	12/3/1981	3000	-	20
7876	ADAMS	CLERK	7788	5/23/1987	1100	-	20

12. List the details of the employees whose salary is greater than 2000 and commission is null.

SELECT * FROM EMP_55 WHERE SAL > 2000 AND COMM IS NULL;



SQL Commands — Schema: WKSP_NITTISH

Language: SQL — Rows: 50 — Clear Command — Find Tables — Save — Run

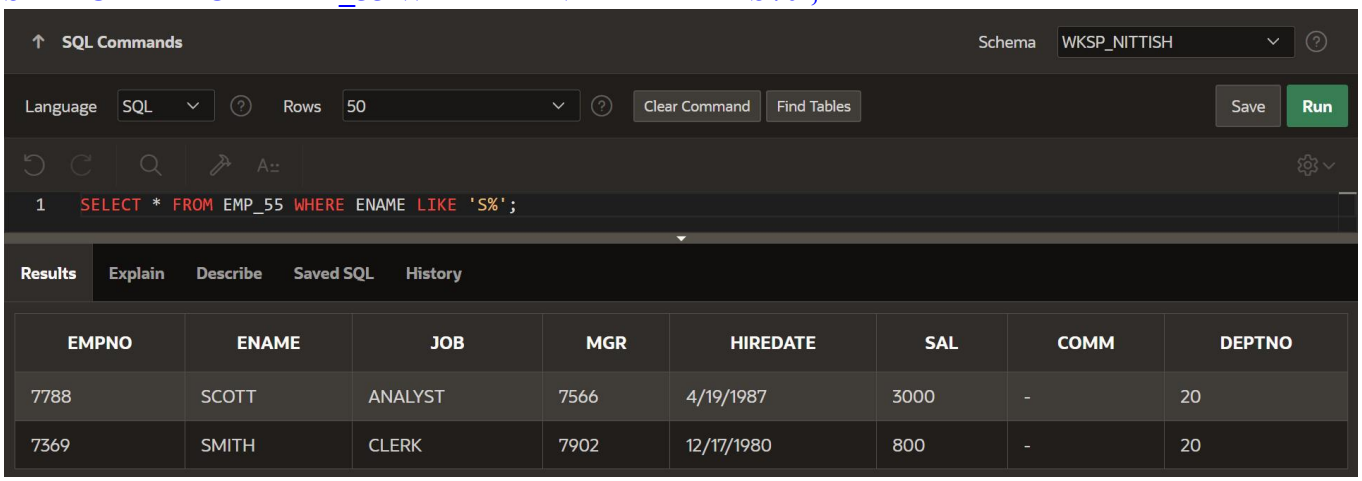
```
1  SELECT * FROM EMP_55 WHERE SAL > 2000 AND COMM IS NULL;
```

Results | Explain | Describe | Saved SQL | History

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	KING	PRESIDENT	-	11/17/1981	5000	-	10
7782	CLARK	MANAGER	7839	6/9/1981	2450	-	10
7698	BLAKE	MANAGER	7839	5/1/1981	2850	-	30
7566	JONES	MANAGER	7839	4/2/1981	2975	-	20
7788	SCOTT	ANALYST	7566	4/19/1987	3000	-	20
7902	FORD	ANALYST	7566	12/3/1981	3000	-	20

13. List the employees whose name start with ‘S’.

SELECT * FROM EMP_55 WHERE ENAME LIKE 'S%';



SQL Commands — Schema: WKSP_NITTISH

Language: SQL — Rows: 50 — Clear Command — Find Tables — Save — Run

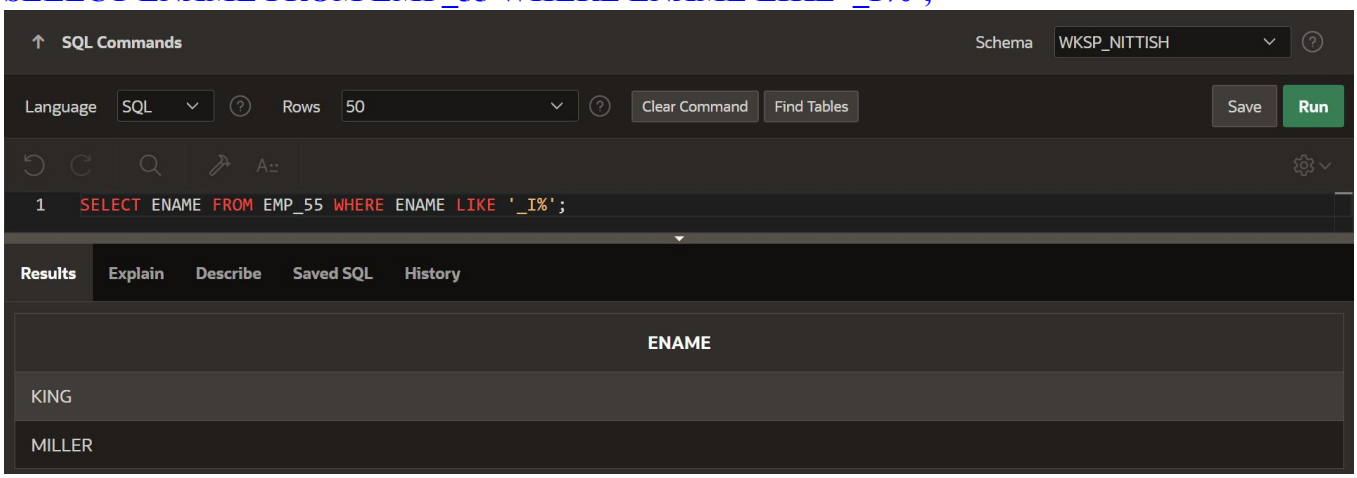
```
1  SELECT * FROM EMP_55 WHERE ENAME LIKE 'S%';
```

Results | Explain | Describe | Saved SQL | History

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7788	SCOTT	ANALYST	7566	4/19/1987	3000	-	20
7369	SMITH	CLERK	7902	12/17/1980	800	-	20

14. List the employee names having ‘I’ as the second character.

SELECT ENAME FROM EMP_55 WHERE ENAME LIKE '_I%';



SQL Commands — Schema: WKSP_NITTISH

Language: SQL — Rows: 50 — Clear Command — Find Tables — Save — Run

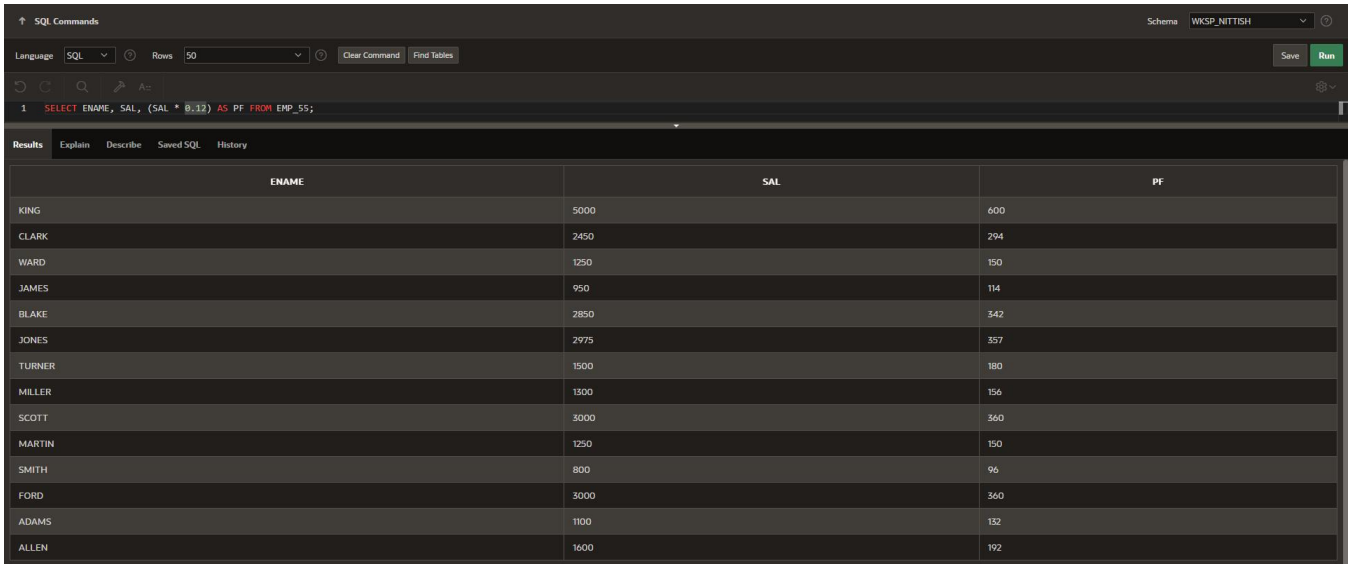
```
1  SELECT ENAME FROM EMP_55 WHERE ENAME LIKE '_I%';
```

Results | Explain | Describe | Saved SQL | History

ENAME
KING
MILLER

15. List the name, salary, and PF amount of all the employees.

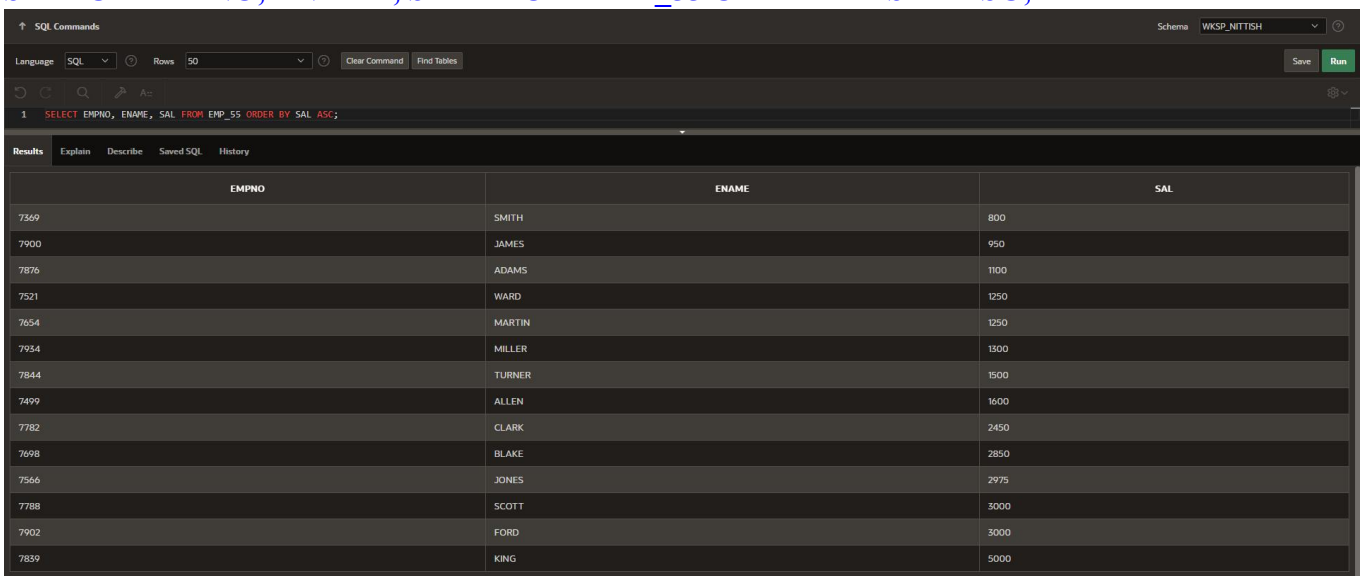
SELECT ENAME, SAL, (SAL * 0.12) AS PF_AMOUNT FROM EMP_55;



ENAME	SAL	PF
KING	5000	600
CLARK	2450	294
WARD	1250	150
JAMES	950	114
BLAKE	2850	342
JONES	2975	357
TURNER	1500	180
MILLER	1300	156
SCOTT	3000	360
MARTIN	1250	150
SMITH	800	96
FORD	3000	360
ADAMS	1100	132
ALLEN	1600	192

16. List the employee ID, name and salary in ascending order of salary.

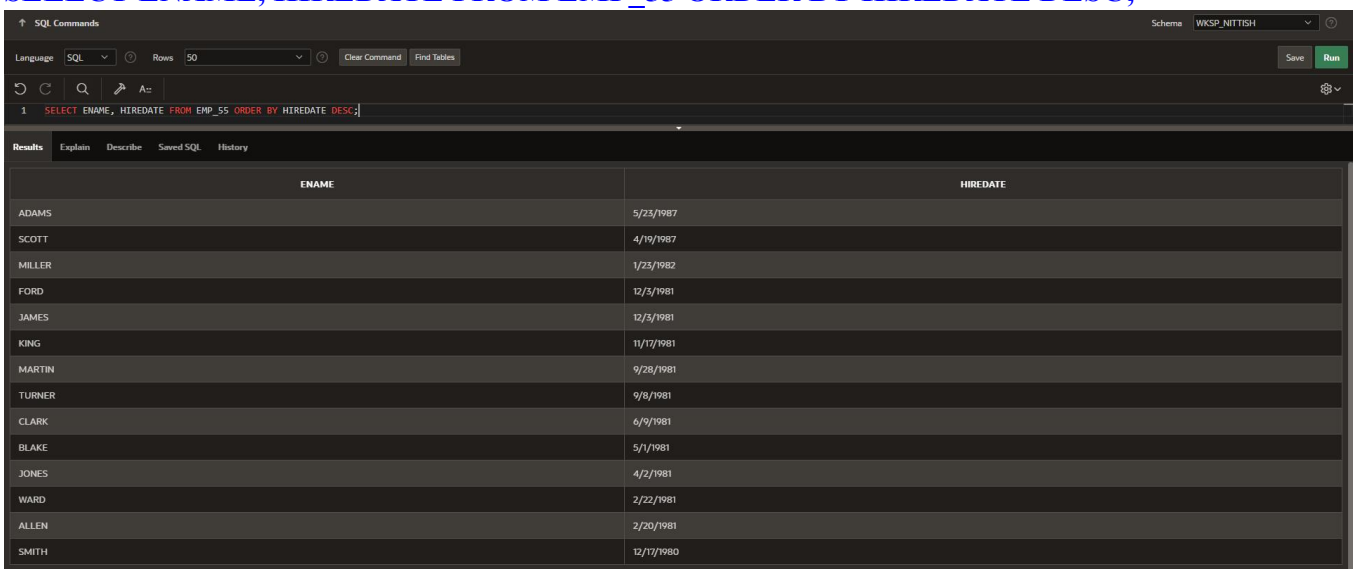
SELECT EMPNO, ENAME, SAL FROM EMP_55 ORDER BY SAL ASC;



EMPNO	ENAME	SAL
7369	SMITH	800
7900	JAMES	950
7876	ADAMS	1100
7521	WARD	1250
7654	MARTIN	1250
7934	MILLER	1300
7844	TURNER	1500
7499	ALLEN	1600
7782	CLARK	2450
7698	BLAKE	2850
7566	JONES	2975
7788	SCOTT	3000
7902	FORD	3000
7839	KING	5000

17. List the employees name and date of joining in descending order of date of joining.

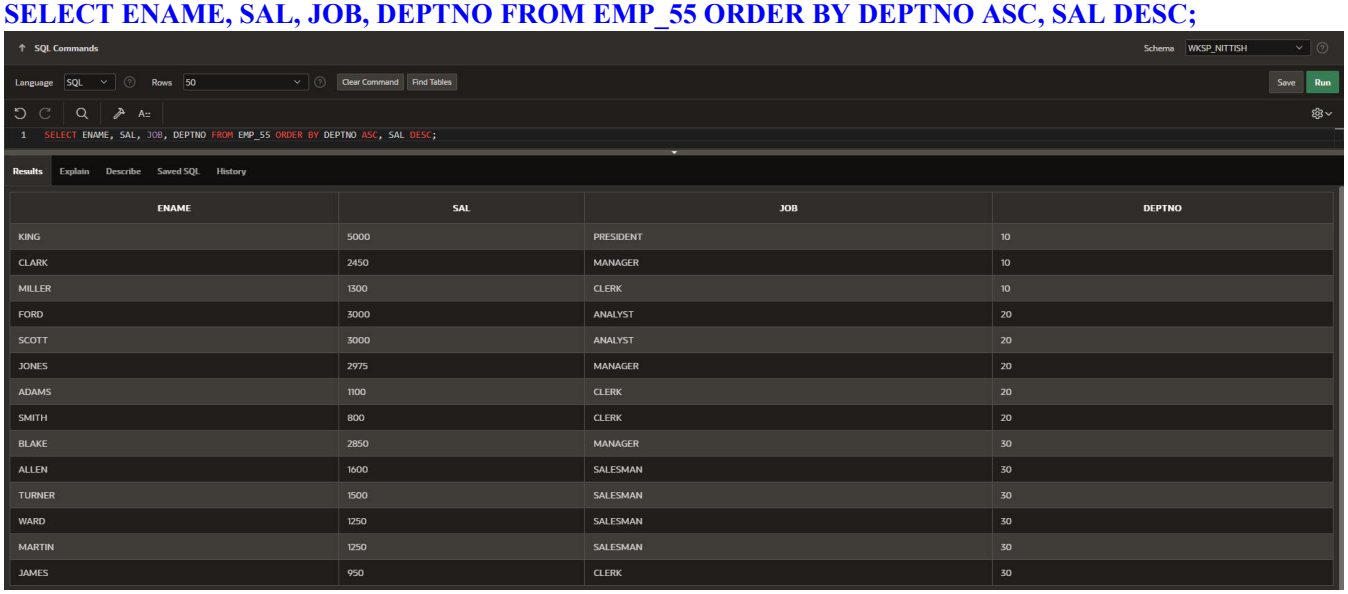
SELECT ENAME, HIREDATE FROM EMP_55 ORDER BY HIREDATE DESC;



ENAME	HIREDATE
ADAMS	5/23/1987
SCOTT	4/19/1987
MILLER	1/23/1982
FORD	12/3/1981
JAMES	12/3/1981
KING	11/17/1981
MARTIN	9/28/1981
TURNER	9/8/1981
CLARK	6/9/1981
BLAKE	5/1/1981
JONES	4/2/1981
WARD	2/22/1981
ALLEN	2/20/1981
SMITH	12/17/1980

18. List the employees name, salary, job, and department number in ascending order of the department number and then on descending order of salary.

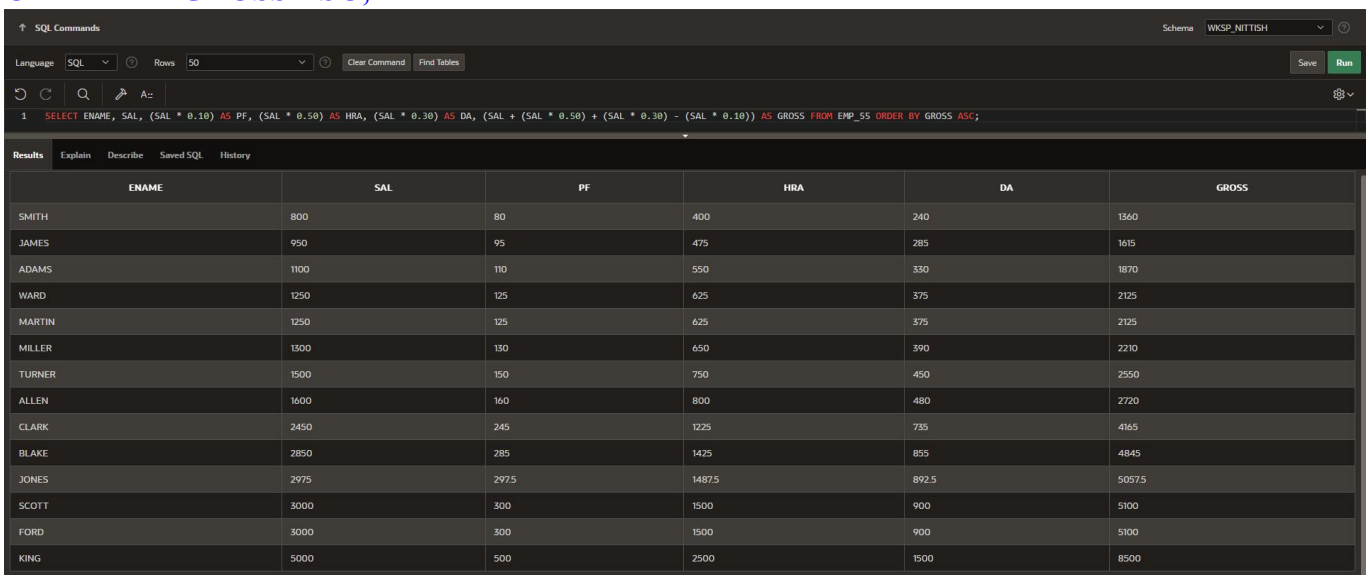
```
SELECT ENAME, SAL, JOB, DEPTNO FROM EMP_55 ORDER BY DEPTNO ASC, SAL DESC;
```



ENAME	SAL	JOB	DEPTNO
KING	5000	PRESIDENT	10
CLARK	2450	MANAGER	10
MILLER	1300	CLERK	10
FORD	3000	ANALYST	20
SCOTT	3000	ANALYST	20
JONES	2975	MANAGER	20
ADAMS	1100	CLERK	20
SMITH	800	CLERK	20
BLAKE	2850	MANAGER	30
ALLEN	1600	SALESMAN	30
TURNER	1500	SALESMAN	30
WARD	1250	SALESMAN	30
MARTIN	1250	SALESMAN	30
JAMES	950	CLERK	30

19. List the employees name, salary, PF, HRA, DA, and GROSS, order the result in ascending order of gross. (HRA is 50% of salary, DA is 30% of salary, PF is 10% of salary)

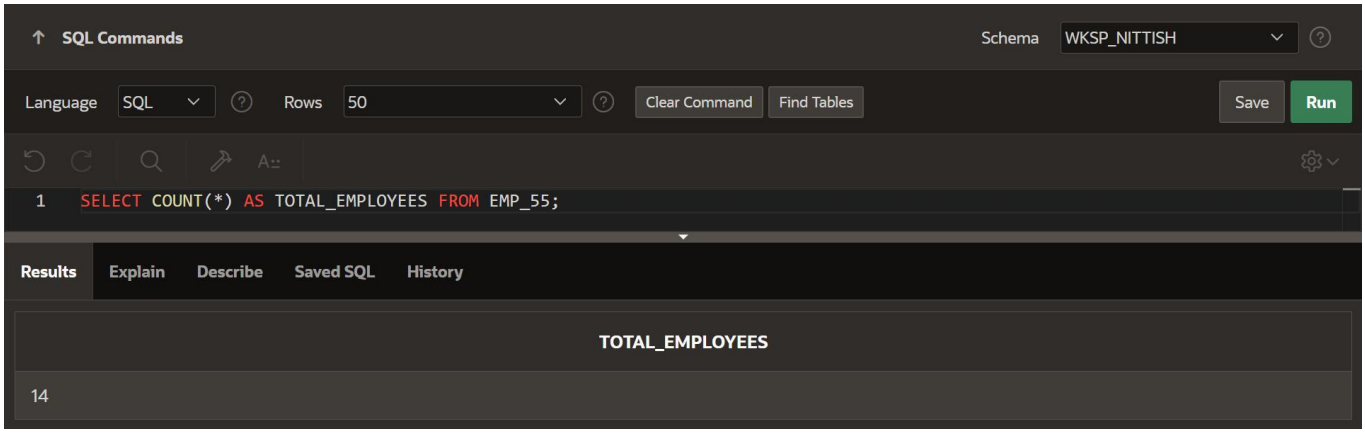
```
SELECT ENAME,
    SAL,
    (SAL * 0.10) AS PF,
    (SAL * 0.50) AS HRA,
    (SAL * 0.30) AS DA,
    (SAL + (SAL * 0.50) + (SAL * 0.30) - (SAL * 0.10)) AS GROSS
FROM EMP_55
ORDER BY GROSS ASC;
```



ENAME	SAL	PF	HRA	DA	GROSS
SMITH	800	80	400	240	1360
JAMES	950	95	475	285	1615
ADAMS	1100	110	550	330	1870
WARD	1250	125	625	375	2125
MARTIN	1250	125	625	375	2125
MILLER	1300	130	650	390	2210
TURNER	1500	150	750	450	2550
ALLEN	1600	160	800	480	2720
CLARK	2450	245	1225	735	4165
BLAKE	2850	285	1425	855	4845
JONES	2975	297.5	1487.5	892.5	5057.5
SCOTT	3000	300	1500	900	5100
FORD	3000	300	1500	900	5100
KING	5000	500	2500	1500	8500

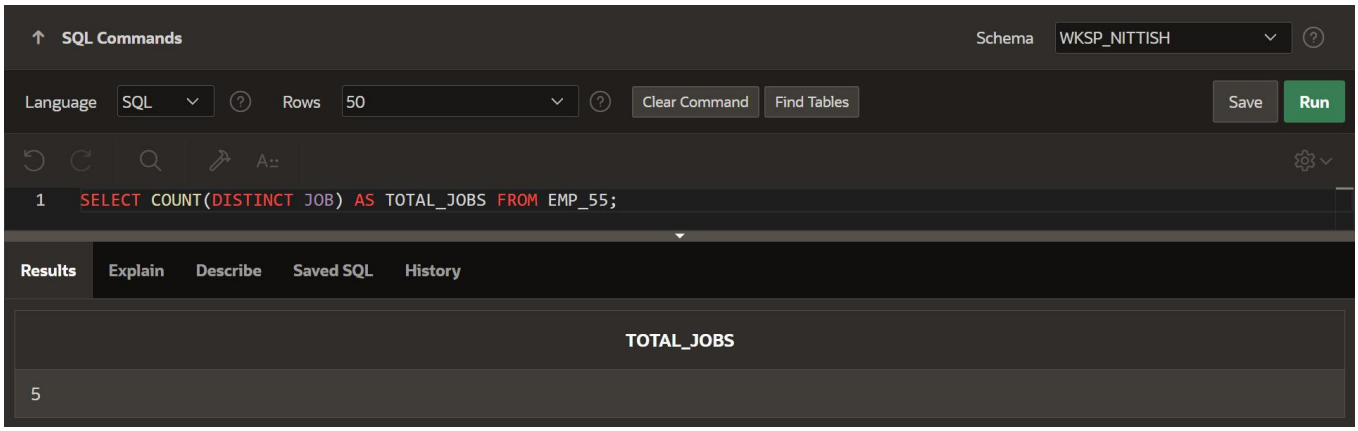
20. List the number of employees working with the company.

```
SELECT COUNT(*) AS TOTAL_EMPLOYEES FROM EMP_55;
```



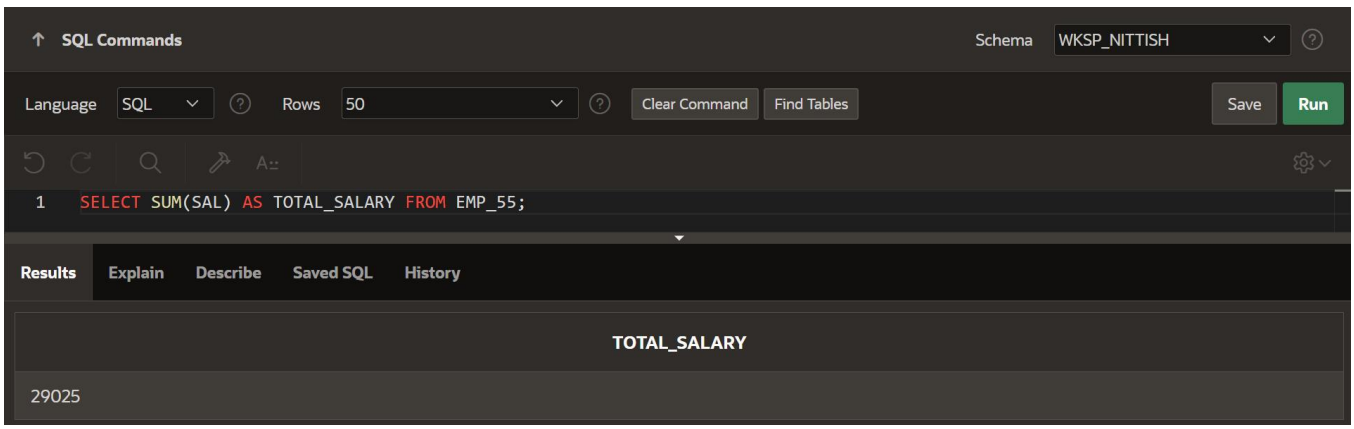
21. List the number of jobs available in the emp table.

SELECT COUNT(DISTINCT JOB) AS TOTAL_JOBS FROM EMP_55;



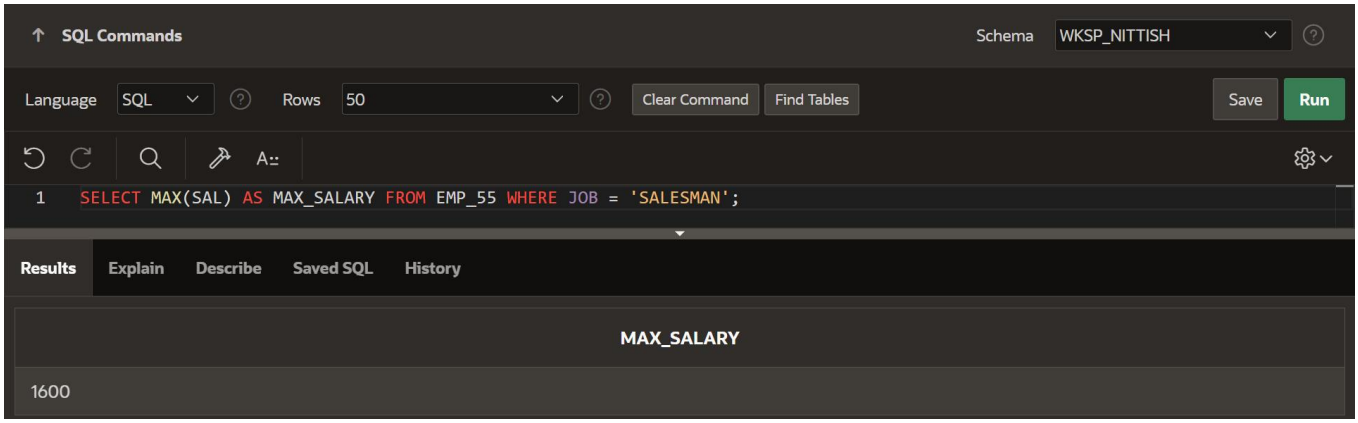
22. List the total salary payable to employees.

SELECT SUM(SAL) AS TOTAL_SALARY FROM EMP_55;



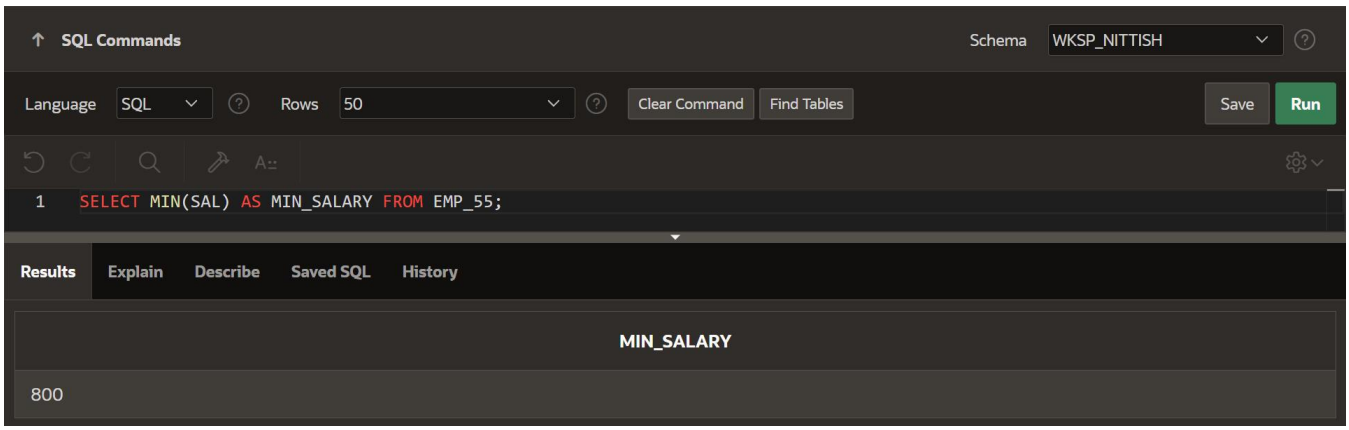
23. List the maximum salary of employee working as a salesman.

SELECT MAX(SAL) AS MAX_SALARY FROM EMP_55 WHERE JOB = 'SALESMAN';



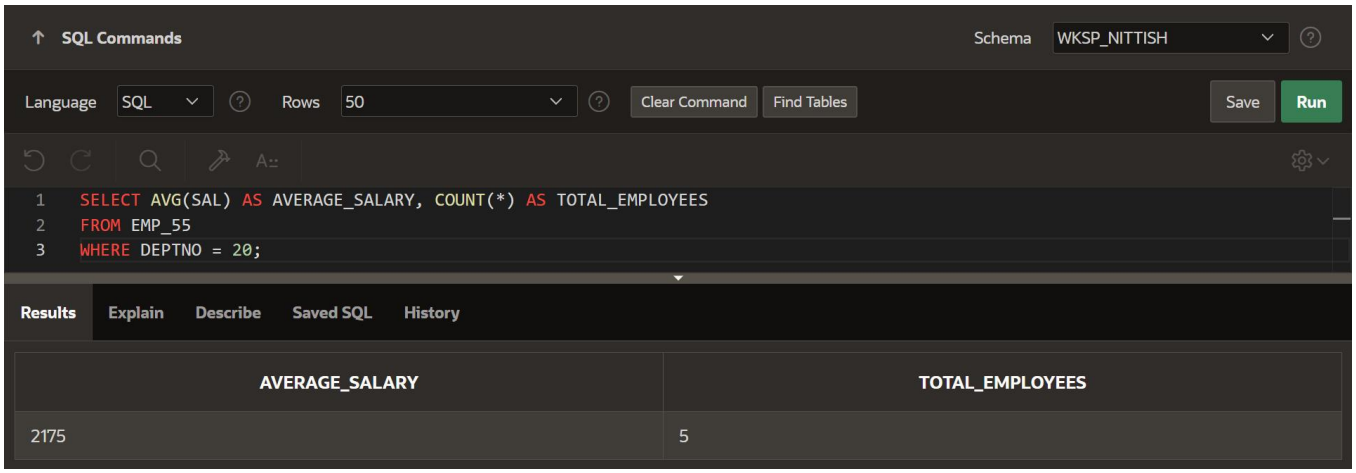
24. List the minimum salary.

SELECT MIN(SAL) AS MIN_SALARY FROM EMP_55;



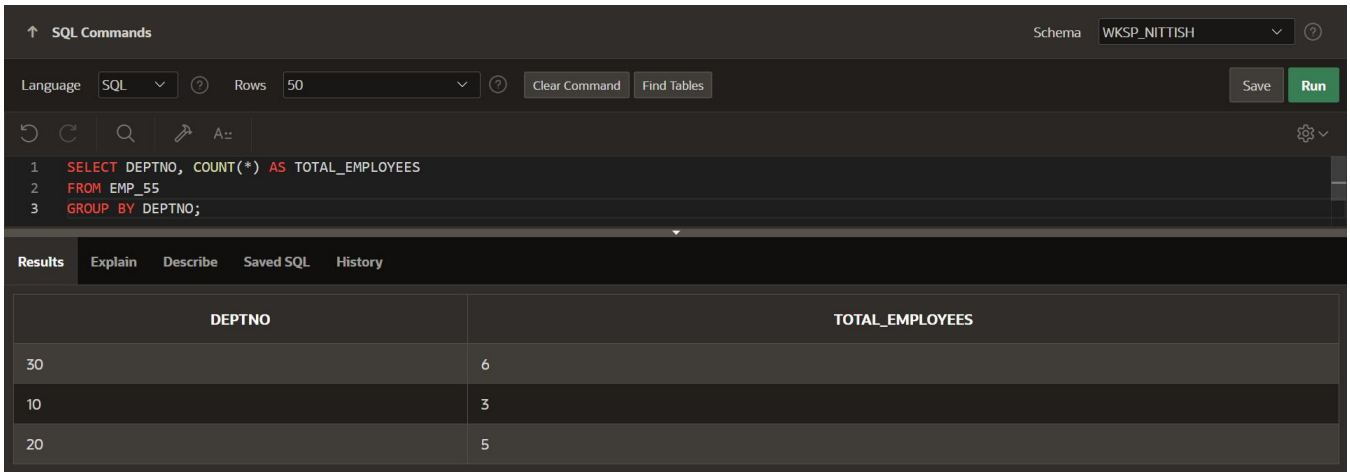
25. List the average salary and number of employees working in the department 20.

SELECT AVG(SAL) AS AVERAGE_SALARY, COUNT(*) AS TOTAL_EMPLOYEES
FROM EMP_55
WHERE DEPTNO = 20;



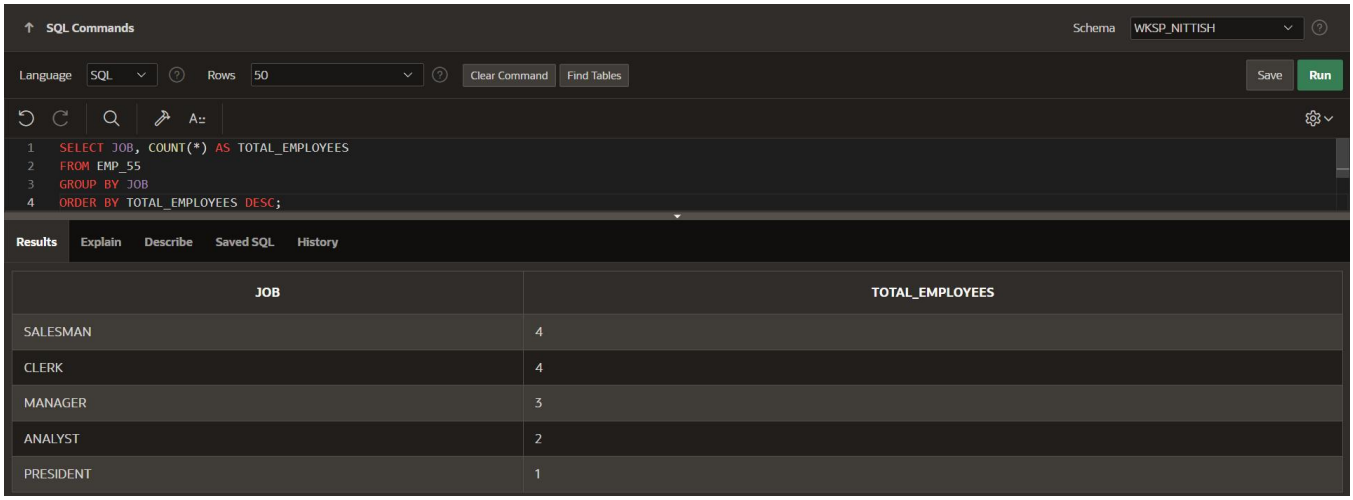
26. List the department number and number of employees in each department.

SELECT DEPTNO, COUNT(*) AS TOTAL_EMPLOYEES
FROM EMP_55
GROUP BY DEPTNO;



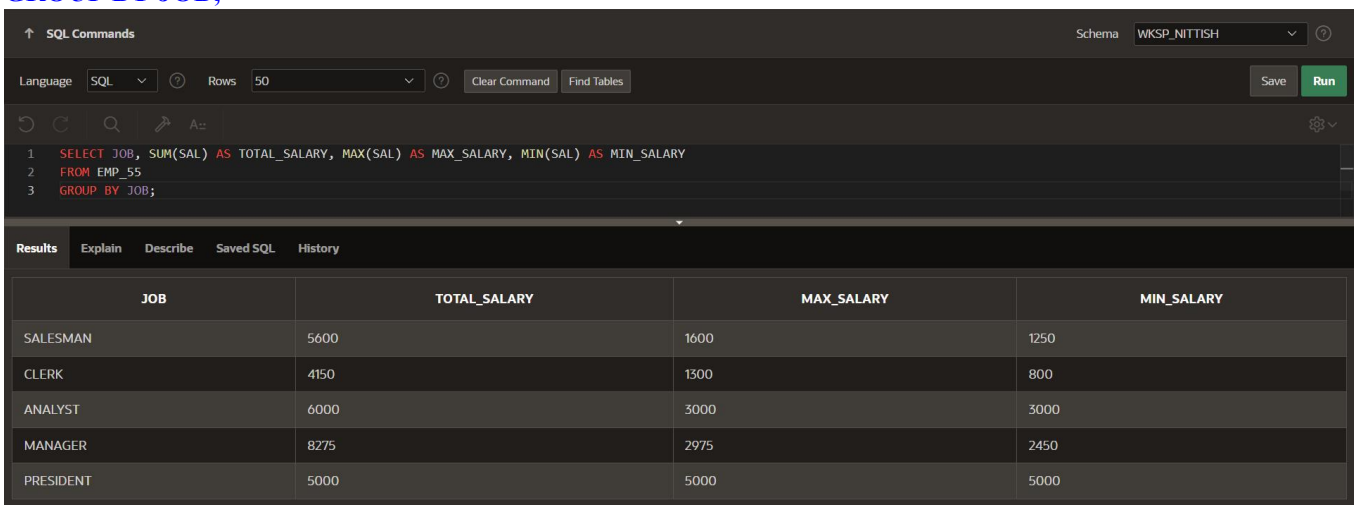
27. List the job and the number employees in each job. The result should be in descending order of the number of employees.

```
SELECT JOB, COUNT(*) AS TOTAL_EMPLOYEES
FROM EMP_55
GROUP BY JOB
ORDER BY TOTAL_EMPLOYEES DESC;
```



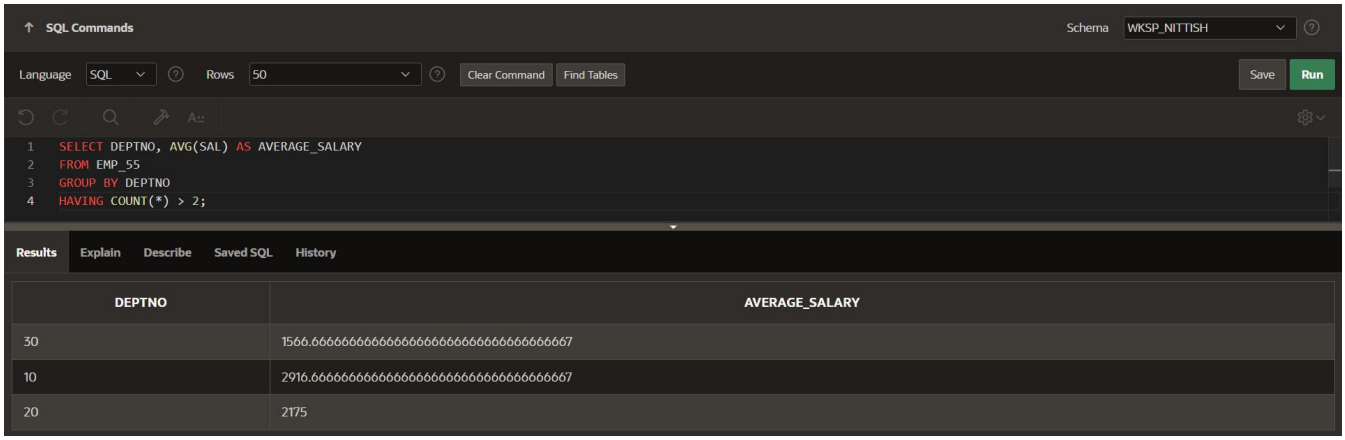
28. List the total salary, maximum and minimum salary of employee job wise.

```
SELECT JOB, SUM(SAL) AS TOTAL_SALARY, MAX(SAL) AS MAX_SALARY, MIN(SAL) AS MIN_SALARY
FROM EMP_55
GROUP BY JOB;
```



29. List the average salary for all the departments employing more than 2 people.

```
SELECT DEPTNO, AVG(SAL) AS AVERAGE_SALARY
FROM EMP_55
GROUP BY DEPTNO
HAVING COUNT(*) > 2;
```



30. List the jobs of all the employees where maximum salary is greater than or equal to 1000.

```
SELECT JOB
FROM EMP_55
GROUP BY JOB
HAVING MAX(SAL) >= 1000;
```