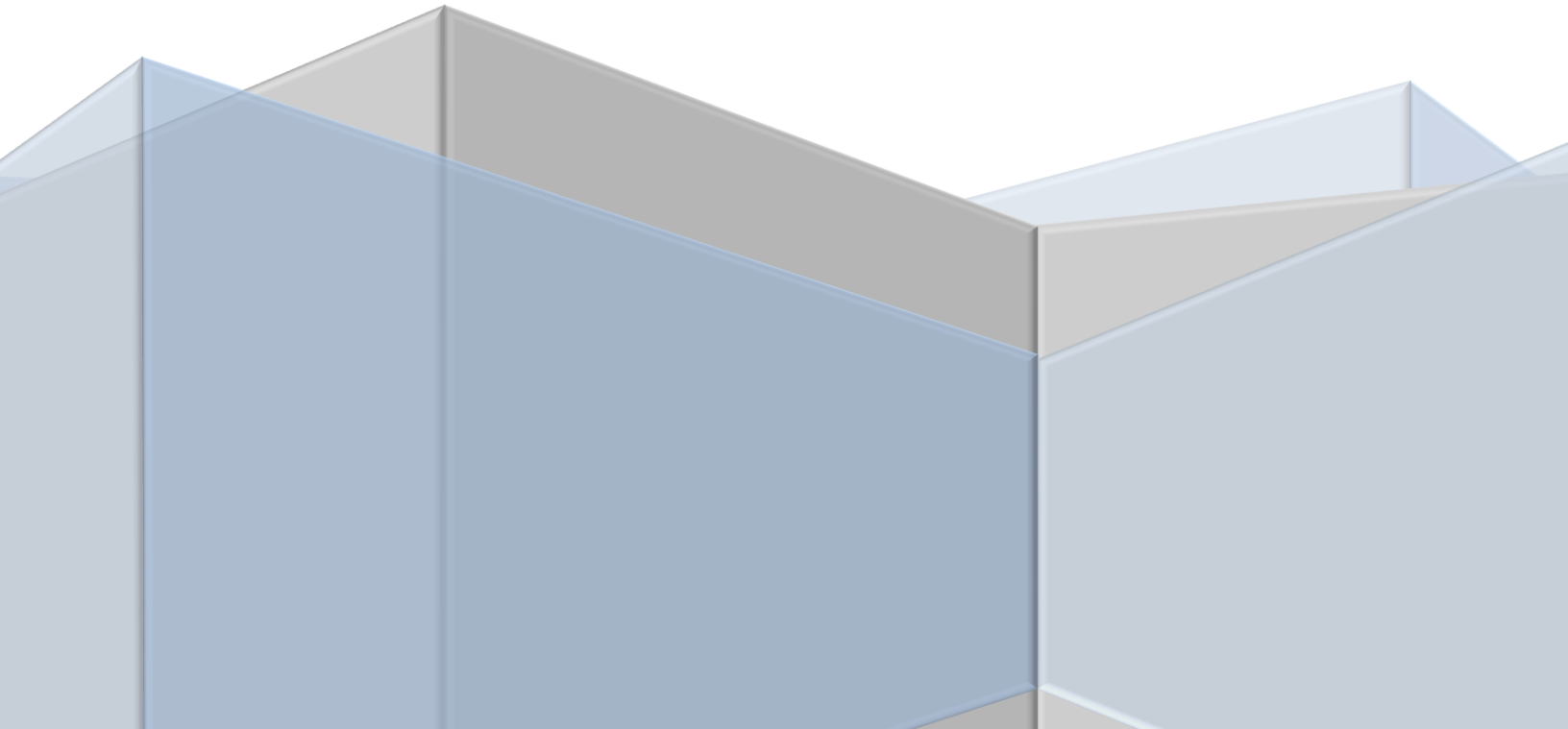
Mehran University of Engineering and Technology Jamshoro

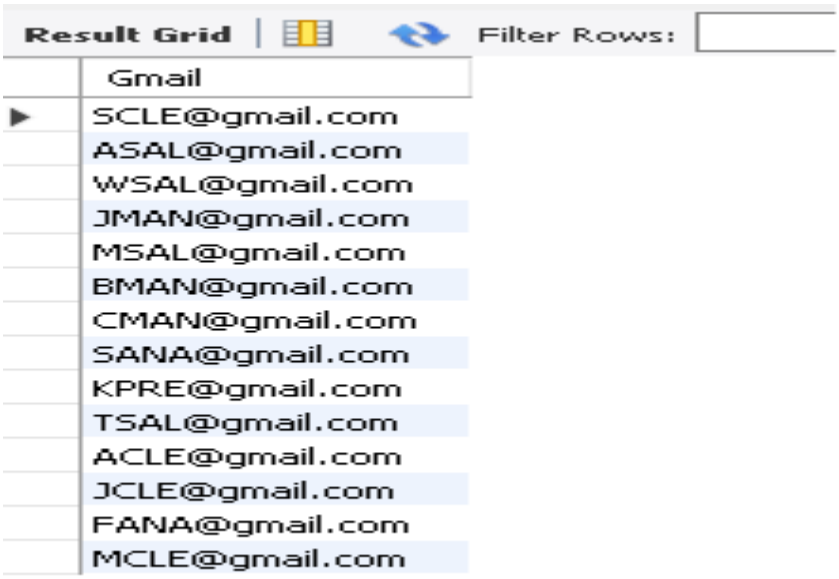
ASSIGNMENT	**:**	**SQL FUNCTIONS**
SUBJECT	**:**	**DBMS(THEORY)**
ROLL NO	**:**	**24BSAI29**
SUBMITTED BY	**:**	**SYED MUHAMMAD QASIM**
SUBMITTED TO	**:**	**Ms. Sana Faiz**



TASK A

1. Generating new email address:

- **select concat(substr(ename,1,1),substr(lastname,1,3),"@gmail.com") as "Gmail" from emp;**

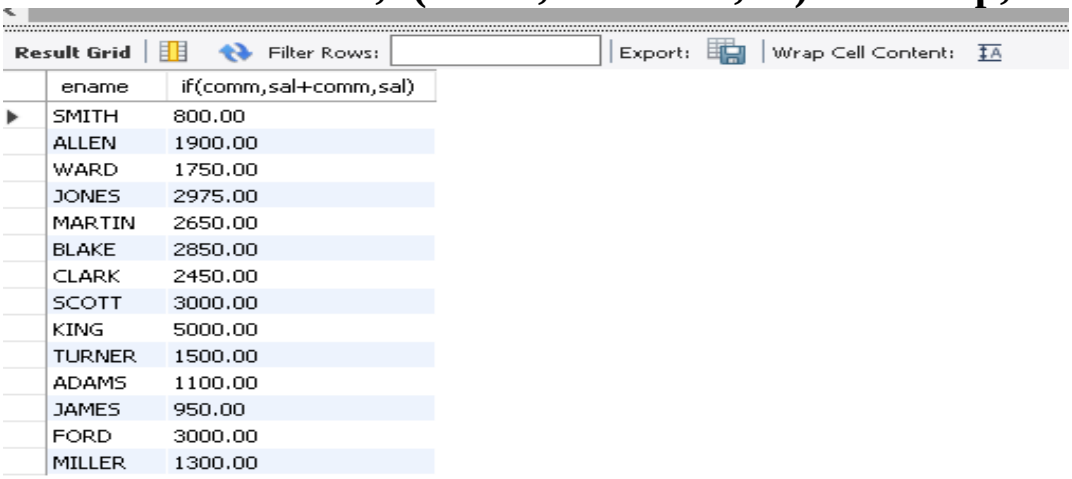


Result Grid | Filter Rows:

Gmail
SCLE@gmail.com
ASAL@gmail.com
WSAL@gmail.com
JMAN@gmail.com
MSAL@gmail.com
BMAN@gmail.com
CMAN@gmail.com
SANA@gmail.com
KPRE@gmail.com
TSAL@gmail.com
ACLE@gmail.com
JCLE@gmail.com
FANA@gmail.com
MCLE@gmail.com

TASK B

- **Find the GROSS PAY of all employees using NVL2 function.**
  - **select ename,if(comm,sal+comm,sal) from emp;**



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

ename	if(comm,sal+comm,sal)
SMITH	800.00
ALLEN	1900.00
WARD	1750.00
JONES	2975.00
MARTIN	2650.00
BLAKE	2850.00
CLARK	2450.00
SCOTT	3000.00
KING	5000.00
TURNER	1500.00
ADAMS	1100.00
JAMES	950.00
FORD	3000.00
MILLER	1300.00

TASK C

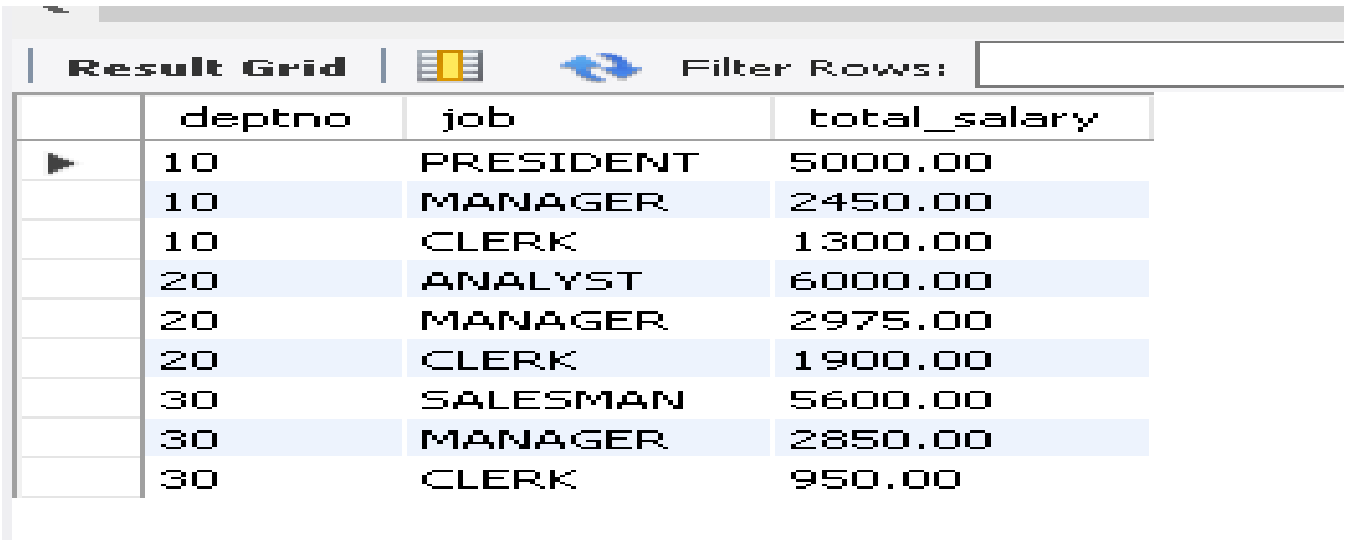
2. Using WHERE Clause for Filtering Data:

1. **Display manger id and the salary of the lowest paid employee for that manger, exclude any those whose manger is unknown and sort the result in descending order of the lowest salary.**

- **SELECT mgr , MIN(sal) FROM emp WHERE mgr IS NOT NULL GROUP BY mgr ORDER BY lowest_salary DESC;**

2. **Display the total salary being paid to each job title within each department.**

- **SELECT deptno, job, SUM(sal) AS "total_salary" FROM emp GROUP BY deptno, job ORDER BY deptno, total_salary DESC;**



deptno	job	total_salary
10	PRESIDENT	5000.00
10	MANAGER	2450.00
10	CLERK	1300.00
20	ANALYST	6000.00
20	MANAGER	2975.00
20	CLERK	1900.00
30	SALESMAN	5600.00
30	MANAGER	2850.00
30	CLERK	950.00

3. **Find the total annual salary distributed job wise in the year 81.**

- **SELECT job, SUM(sal * 12) AS total_annual_salary FROM emp WHERE YEAR(hiredate) = 1981 GROUP BY job ORDER BY total_annual_salary DESC;**

Result Grid | Filter Rows:

job	total_annual_salary
MANAGER	99300.00
SALESMAN	67200.00
PRESIDENT	60000.00
ANALYST	36000.00
CLERK	11400.00

4. **List the Manager ids & number of employees working for those managers in the ascending order**

- **SELECT mgr AS manager_id, COUNT(empno) FROM emp GROUP BY mgr ORDER BY COUNT(empno) ASC;**

Result Grid | Filter Rows:

manager_id	COUNT(*)
7902	1
7788	1
7782	1
7566	2
7839	3
7698	5

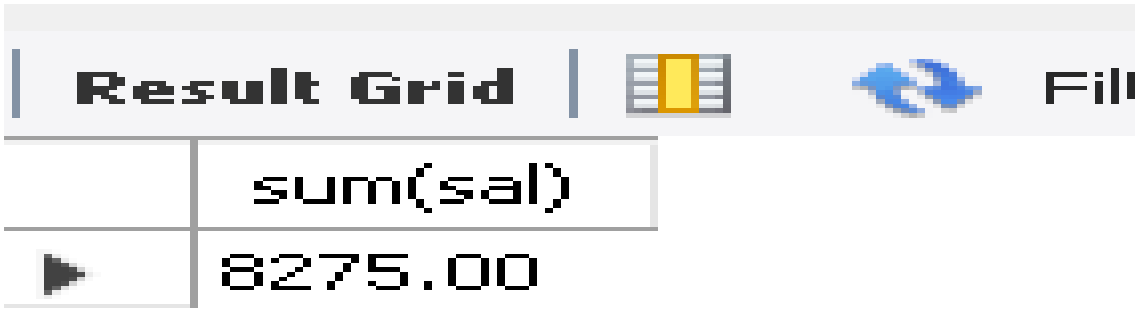
5. **Find the number of employees who are serving as CLERK?**
select count(empno) from emp where job = "CLERK";

Result Grid | Filter R

count(empno)
4

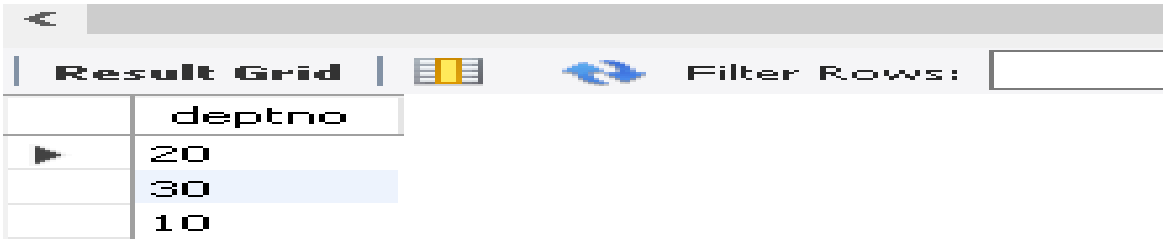
6. **Find the total salary given to the MANAGERS?**

- **select sum(sal) from emp where job = "MANAGER";**



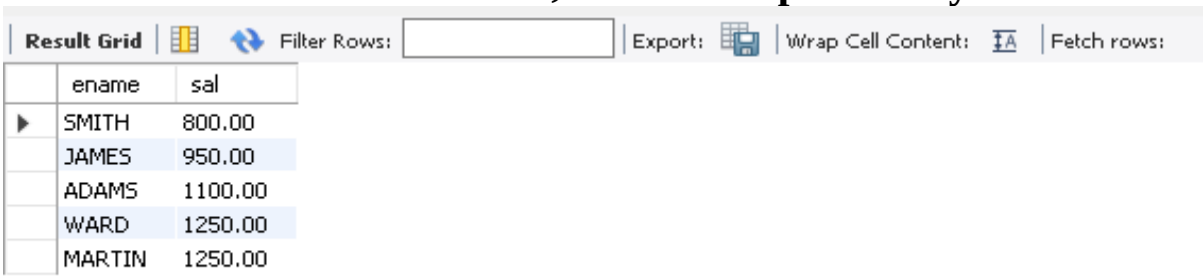
TASK D

- **List the departments where at least two employees are working**
  - **select deptno from emp Group BY deptno Having count(empno)>= 2;**



- **List the number of employees in each department where the number of employees exceeds 3.**
  - **select deptno,count(empno) from emp Group By deptno Having count(empno)>3;**

- **Find out the least 5 earners of the emp table.**
    - **select ename,sal from emp order by sal ASC limit 5;**



ename	sal
SMITH	800.00
JAMES	950.00
ADAMS	1100.00
WARD	1250.00
MARTIN	1250.00