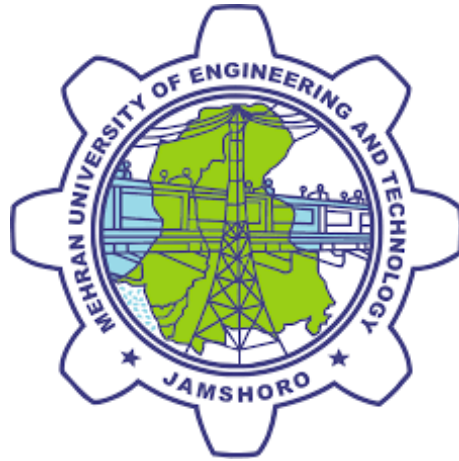
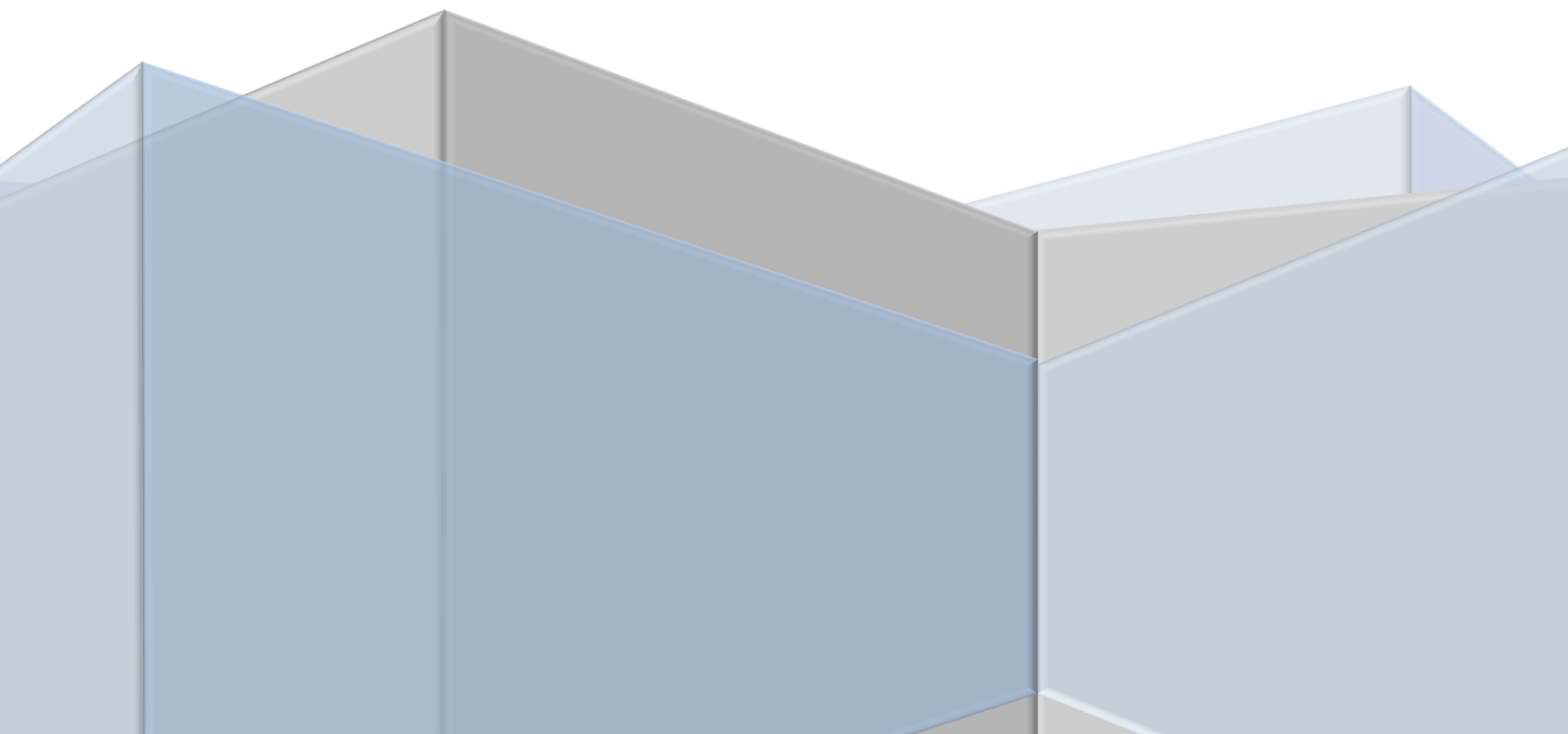


Mehran University of Engineering and Technology Jamshoro



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



TASK A

1. Retrieving Data with SELECT Statement:

- **SELECT** empno, ename, sal * 12 **AS** "Annual Salary" **FROM** emp;

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
empno	ename	Annual Salary	
7369	SMITH	9600.00	
7499	ALLEN	19200.00	
7521	WARD	15000.00	
7566	JONES	35700.00	
7654	MARTIN	15000.00	
7698	BLAKE	34200.00	
7782	CLARK	29400.00	
7788	SCOTT	36000.00	
7839	KING	60000.00	
7844	TURNER	18000.00	
7876	ADAMS	13200.00	
7900	JAMES	11400.00	
7902	FORD	36000.00	
7934	MILLER	15600.00	

TASK B

1. Find errors:

- **Select** empno, ename sal x 12 Annual Salary **From** emp;

Corrected Query:

- **Select** empno, ename, sal * 12 **AS** "Annual Salary" **FROM** emp;

Result Grid	Filter Rows:	Export:	Wrap Cell
empno	ename	Annual Salary	
7369	SMITH	9600.00	
7499	ALLEN	19200.00	
7521	WARD	15000.00	
7566	JONES	35700.00	
7654	MARTIN	15000.00	
7698	BLAKE	34200.00	
7782	CLARK	29400.00	
7788	SCOTT	36000.00	
7839	KING	60000.00	
7844	TURNER	18000.00	
7876	ADAMS	13200.00	
7900	JAMES	11400.00	
7902	FORD	36000.00	
7934	MILLER	15600.00	

2. Display employees' annual salary with a one-time bonus of \$100.

- **Select** empno, ename, (sal * 12) + 100 **AS** "Annual Salary with Bonus"
FROM emp;

Result Grid			
	empno	ename	Annual Salary with Bonus
▶	7369	SMITH	9700.00
	7499	ALLEN	19300.00
	7521	WARD	15100.00
	7566	JONES	35800.00
	7654	MARTIN	15100.00
	7698	BLAKE	34300.00
	7782	CLARK	29500.00
	7788	SCOTT	36100.00
	7839	KING	60100.00
	7844	TURNER	18100.00
	7876	ADAMS	13300.00
	7900	JAMES	11500.00
	7902	FORD	36100.00
	7934	MILLER	15700.00

3. Display annual compensation as monthly salary plus a monthly bonus of \$100.

- **Select** empno, ename, (sal + 100) * 12 **AS** "Annual compensation "
From emp;

Result Grid			
	empno	ename	Annual compensation
▶	7369	SMITH	10800.00
	7499	ALLEN	20400.00
	7521	WARD	16200.00
	7566	JONES	36900.00
	7654	MARTIN	16200.00
	7698	BLAKE	35400.00
	7782	CLARK	30600.00
	7788	SCOTT	37200.00
	7839	KING	61200.00
	7844	TURNER	19200.00
	7876	ADAMS	14400.00
	7900	JAMES	12600.00
	7902	FORD	37200.00
	7934	MILLER	16800.00

4. Display rows in following format:

Monthly Salary

King: 1 month Salary = 5000

- **Select** concat(ename," : 1 Month Salary = ",sal) **AS** "Monthly Salary"
From emp;

Result Grid		Filter Rows:	Export:
	Monthly Salary		
▶	SMITH: 1 Month Salary = 800.00		
	ALLEN: 1 Month Salary = 1600.00		
	WARD: 1 Month Salary = 1250.00		
	JONES: 1 Month Salary = 2975.00		
	MARTIN: 1 Month Salary = 1250.00		
	BLAKE: 1 Month Salary = 2850.00		
	CLARK: 1 Month Salary = 2450.00		
	SCOTT: 1 Month Salary = 3000.00		
	KING: 1 Month Salary = 5000.00		
	TURNER: 1 Month Salary = 1500.00		
	ADAMS: 1 Month Salary = 1100.00		
	JAMES: 1 Month Salary = 950.00		
	FORD: 1 Month Salary = 3000.00		
	MILLER: 1 Month Salary = 1300.00		

5. Display kinds of Jobs available in employee table.

- **select distinct** job **from** emp;

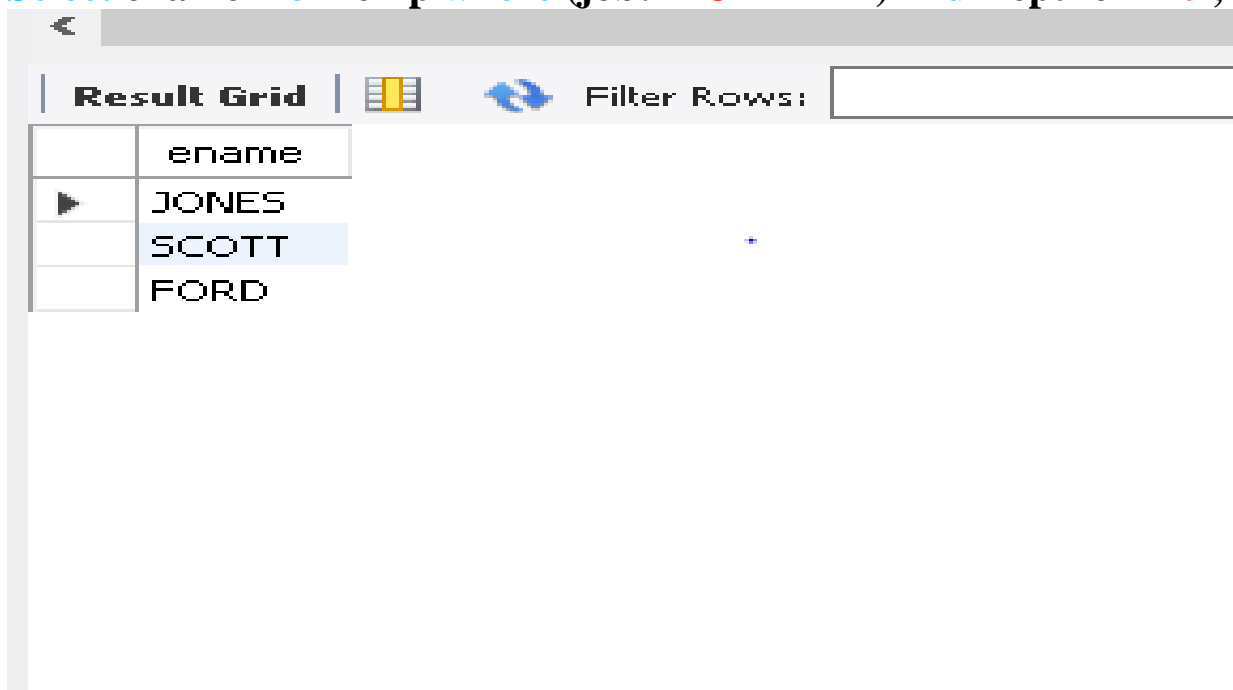
Result Grid		Filter Rows:
	job	
▶	CLERK	
	SALESMAN	
	MANAGER	
	ANALYST	
	PRESIDENT	

TASK C

2. Using WHERE Clause for Filtering Data:

- Find all employees whose job is not CLERK and belong to department 20.

Select ename from emp where (job!="CLERK")And Deptno = 20 ;



The screenshot shows a database query result grid. At the top, there is a navigation bar with a back arrow, a 'Result Grid' tab, a grid icon, a refresh icon, and a 'Filter Rows:' input field. Below this is a table with the following data:

	ename
▶	JONES
	SCOTT
	FORD

- Display the employee's name , job title & salary based on the following criteria:
 - If the employee is a salesman, then he should be included in the O/P
 - If the employee is a manager, then his salary package must be above 2450.
- Select ename, job, sal From emp Where job = 'Salesman' OR (job = 'Manager' And sal > 2450);

Result Grid				Filter Rows:	
	ename	job	sal		
▶	ALLEN	SALESMAN	1600.00		
	WARD	SALESMAN	1250.00		
	JONES	MANAGER	2975.00		
	MARTIN	SALESMAN	1250.00		
	BLAKE	MANAGER	2850.00		
	TURNER	SALESMAN	1500.00		

- Display employee's name , Job titles & salary if the employee is either a salesman or a manager & earns more than 2450.
- **select** ename , job, sal **from** emp **where** (job = "SALESMAN" **OR** job = "MANAGER")**AND** sal>2450;

Result Grid				Filter Rows:	
	ename	job	sal		
▶	JONES	MANAGER	2975.00		
	BLAKE	MANAGER	2850.00		

TASK D

- List the employees having at least two A's in their names.
 - **select** * **from** emp **where** ename **like** '%A%A%';

Result Grid									Filter Rows:	Export:	Wrap Cell Content:
	empno	ename	job	mgr	hiredate	sal	comm	deptno			
▶	7876	ADAMS	CLERK	7788	1983-01-12	1100.00	NULL	20			

- List the employees whose names start with S and end at H.
 - **select** * **from** emp **where** ename **like** 'S%%H';

Result Grid		Filter Rows:		Export:		Wrap Cell Content:	
empno	ename	job	mgr	hiredate	sal	comm	deptno
7369	SMITH	CLERK	7902	1980-12-17	800.00	NULL	20

- List the employee whose name has E as the second character.

- **select * from emp where ename like '_E%';**

Result Grid

Filter Rows:

Export:



Wrap Cell Cor

empno	ename	job	mgr	hiredate	sal	comm	deptno
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- Display employ number and job title of all employees who have a job title that contain the string 'MAN' & earn more than 10,000.

- **select empno, job From emp Where job Like '%MAN%' And sal > 10000;**

Result Grid



Filter Rows:

empno

job

TASK E

- Display list of employees who are either a clerk or an analyst & who do not earn 1000, 3000,5000.
 - **select ename,job,sal from emp where job in ('CLERK','ANALYST') AND (sal!=1000 AND sal!=3000 AND sal!=5000);**

Result Grid				Filter Rows:	Export:	Wr
	ename	job	sal			
▶	SMITH	CLERK	800.00			
	ADAMS	CLERK	1100.00			
	JAMES	CLERK	950.00			
	MILLER	CLERK	1300.00			

TASK F

Display the names of employees according to their seniority.

- **select** ename ,hiredate **from** emp **order by** hiredate **asc**;

Result Grid			Filter Rows:
	ename	hiredate	
▶	SMITH	1980-12-17	
	ALLEN	1981-02-20	
	WARD	1981-02-22	
	JONES	1981-04-02	
	BLAKE	1981-05-01	
	CLARK	1981-06-09	
	TURNER	1981-09-08	
	MARTIN	1981-09-28	1981-09-28
	KING	1981-11-17	
	JAMES	1981-12-03	
	FORD	1981-12-03	
	MILLER	1982-01-23	
	SCOTT	1982-12-09	
	ADAMS	1983-01-12	

Display names and annual salary of all employees, also sort the result based on annual salary in descending order.

- **select** ename ,(sal*12) **As** "Annual Salary" **from** emp **order by** (sal*12) **desc**;

Result Grid			Filter Rows:
	ename	Annual Salary	
▶	KING	60000.00	
	SCOTT	36000.00	
	FORD	36000.00	
	JONES	35700.00	
	BLAKE	34200.00	
	CLARK	29400.00	
	ALLEN	19200.00	
	TURNER	18000.00	
	MILLER	15600.00	
	WARD	15000.00	
	MARTIN	15000.00	
	ADAMS	13200.00	
	JAMES	11400.00	
	SMITH	9600.00	

- Write a query which produces the following output.

S.NO	ENAME	DEPTNO	SAL
1	KING	10	5000
2	CLARK	10	2450
3	MILLER	10	1300
4	SCOTT	20	3000
5	FORD	20	3000
6	JONES	20	2975
7	ADAMS	20	1100
8	SMITH	20	800
9	BLAKE	30	2850
10	ALLEN	30	1600
11	TURNER	30	1500
12	MARTIN	30	1250
13	WARD	30	1250
14	JAMES	30	950

- `select` `ename,deptno,sal` `from` `emp` `order by` `deptno asc,sal desc`;

Result Grid				Filter Rows:
	ename	deptno	sal	
▶	KING	10	5000.00	
	CLARK	10	2450.00	
	MILLER	10	1300.00	
	SCOTT	20	3000.00	
	FORD	20	3000.00	
	JONES	20	2975.00	
	ADAMS	20	1100.00	
	SMITH	20	800.00	
	BLAKE	30	2850.00	
	ALLEN	30	1600.00	
	TURNER	30	1500.00	
	WARD	30	1250.00	
	MARTIN	30	1250.00	
	JAMES	30	950.00	

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